

SOCIAL COMPUTING: A CATALYST FOR BUSINESS SUCCESS

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**Abstract**

A new computing paradigm termed Social Computing has accelerated growth during recent years. Social Computing has introduced many web and mobile based applications. These applications are enhancing the traditional bar and shoot businesses as well have caused manifestation of new web and mobile based business models. These new business models acquire advanced business processes based entirely upon Social Computing applications. To define Social Computing and understand the dynamic behavior of Social Computing characteristics a generic model for Social Computing is proposed and, in this research, we extend the idea of the model to investigate the impact of Social Computing on business. The paradigm shift opens up opportunities for businessmen not only to do business but also to enhance customer intimacy, and inspire the people of the business world. Today as technology is growing with rapid speed so constant reinvention is a necessity. To be on the cutting edge and enhance the sustainability in business the relevance of customers is important. Social media like YouTube, Facebook, Twitter, LinkedIn, Blogs, Instagram can create positive opportunities to communicate ideas, to find up to date information, to add values to the product, to make business interesting and engaging, to develop new way of thinking, to builds relationship, to support joint effort on venture and to be imaginative.

**Keywords:** Social Computing, Catalyst, Business Success, Business Models.

**Objectives:**

The Key objectives of the study are ·

- To describe the long-lasting relationship between the consumers and its stakeholders of business.
- To enhance the communication, participation, collaboration and approval of stakeholders; the opinion regarding relevant tools need to be recognized.
- To explore factors that contributes to enhancing digital engagement in the business world using social media.

**1 Introduction**

Today's market scenario expects to go to customers rather than to wait for customers to come to business. The business success depends on what are customers' needs, wants or desires. The effective business focuses on the needs of customers and fulfils them. To maximize the return on investment (ROI) one needs to target the audience. The demographics such as customer's age range, marital status, location, gender, affluence matters most while understanding the customer. To understand the target, market research is most important. Google trends help us to explore the likely target markets. The location and popularity-based reply are given by Google trends. Google localizes searches, so competitor websites design and content one has to understand.

India's total population is more than 1.44 billion people (it's the second most populous country). In Indian population, 462 million (or 78%) are active social media users. Maximum users are from age group 18 to 24 years. The cost per click for Facebook in India is Rs.64. In India, 680.44 million people are active on Facebook (as per 2024 survey on statistica)

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As per city wise users, Mumbai has the highest number of Facebook users. More than 50% of people are using Facebook as a source of news. In business to market any new product Facebook is an influential tool.

The next largest social media tool is Instagram. More than 350 million people are Instagram users in India. The largest age group on Instagram is 18-24 years.

### 1.1 Why Social Computing?

Innovative communication techniques are called social computing, social media, web 2.0 or Enterprise 2.0 Internet itself has become a computing platform. Web 2.0 applications get immediate feedback and can update information without a conscious refresh.

#### 1.1.1 Web 2.0 Applications

A new digital ecosystem promotes creativity, collaboration, connectivity, community and convergence.

- **AJAX** – it is a web development technique that updates a web page without reloading the page. AJAX enables portions of web pages to reload with fresh data instead of requiring the entire web page to reload.
- **Tagging** – Tag describes a piece of information in manifold, it expresses overlapping associations rather than rigid categories. Geo tagging is used in information on maps.
- **Really Simple Syndication (RSS)** – with RSS feeds the subscribers receive customized information when they want it, without surfing thousands of web sites. Subscribers receive a notification of the changes and information about the new content.
- **Blogs or weblogs** – Blogs are open websites, which are open to public. The blogger express his/her feeling with the help of series of entries. Millions of blogs on the web is refereed as blogosphere.
- **Micro blogging** - Blogging using short messages, images or videos is called micro blogging.
- **Wiki** – It represents a web site made of contents posted by users. Wikis promotes collaboration.
- **Social networking web sites** – Social networks supports activities. It allows users to create profile, post messages and create connections, media share etc.
- **Enterprise social networks** – It represents business oriented social network or corporate social networks.
- **Mashup** - A website that takes contents from different web sites, mix them and create new contents.

Web 3.0 is the third-generation internet service for websites and applications. It will create more intelligent, connected and open websites.

#### 1) Increased collaboration

People with similar interests can share their ideas and can work on them. The collaborative exchange of ideas helps to successfully find software architecture and design, project management etc. the social networking sites, forums, wikis helps to virtually connect people with each other. Using social networking tools, the traditional organizational structures become obsolete. Improved collaboration between the various user groups. Problems are shared and solutions are suggested. It reduces redundancy and advances common functionality.

#### 2) Enhanced innovation

Social computing creates a new stage for innovation where new ideas are easily uncovered and models spotted. The public forums and innovative thinking combined together can emerge leadership or ownership. Amazon.com uses social computing for development of new features. Virtual teams' working on the same ideas helps in product enhancement.

#### 3) Increased productivity

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Consistently correct information access leads to increased productivity. In software project the solution sharing and knowledge sharing by experts improves delivery of solution. In Business Process Outsourcing (BPO) environments, extracting required information and communicating it in real time with co-workers reduces the call time. On design projects, collaborative work on the shared artifacts speed up the early stages of a project and simplifies future iterations. In these entire scenarios the collective efforts of community identify answer more quickly. As more questions are answered, the repeatability increases. The knowledge available on social platform is treated as a baseline for the new employee.

### **4) Improved employee relations**

If employees are get along very well co-workers then it would be the best thing for the organization/company. If employees are happy in the company then attrition rate is very low. Social computing allows employees to connect with each other. Using social networks, blogs and wikis helps employees to share ideas and experiences of employees can be heard on these.

### **5) Improved employee engagement**

Employees can exchange ideas with each other in company using social media. The shared connections improve the face to face connections and a sense of belongings within each other. The common interest of employees can create bonding with them. Social media has the ability to influence decisions in the company.

### **6) Attracting younger workers**

Young workers usually have expectations about workplace such as workplaces must be highly interactive, ubiquitous computing and mobile computing. With the practice of technology the worker can become highly productive. Social computing devices and applications can be used by all range of humans. Humans are able to perform the task parallel hence the social computing can be beneficial.

### **7) Promotion and public relations**

Most of the companies prefer to brand their products on public facing social computing. Customers' loyalty is a key factor for profit generation in online marketing. Most of the companies are trying to retain their customers by targeting customers' loyalty.

## **Literature Review**

Social media tools are gaining popularity and are increasingly used in regular operations of many companies, ranging from start-ups and small and medium enterprises to large corporations (Lee et al, 2008; Osimo, 2008; Andriole, 2010; Bell and Loane, 2010). Despite extensive use of social media, little is known on the specific impact that these tools and technologies have on business process performance (Denyer et al, 2011).[9]

The study "The Impact of Social Media on Business Performance" by Martin Smits and Serban Mogos looks at how social media tools help improve business operations and performance. Using SponsorPay, a startup in online game advertising, as a case study, the researchers combined interviews and surveys with 60 employees. They found that social media tools like Google Apps and Salesforce enhance teamwork, communication, and knowledge sharing, which leads to better business results. The study shows that using a mix of social media tools together creates a strong system that helps manage internal and external business activities effectively. Despite focusing on one company and industry, the study suggests that social media can positively impact business performance.

The study "Digitalization as a Factor for Business Survival: A Critical Analysis of Business Agility" explores how businesses can use digital technologies to stay competitive during volatile times. Using Apple Inc. as a case study, it examines how digital tools like ERP, CRM, and e-commerce help large companies remain agile and resilient. The research highlights that digital transformation allows companies to innovate, create customer networks, and shift traditional views of competitors to partners. The study suggests that for businesses to survive

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and thrive, especially SMEs, they need to adopt digital tools to improve flexibility, responsiveness, and overall business performance. However, the study also notes challenges such as high costs and the need for integration with existing systems.[6]

The study "The Role of Social Media in Enhancing Business Performance" by Lydiawati Soelaiman and Sanny Ekawati examines why business owners adopt social media and the benefits it provides. Social media is widely used because it is low-cost and easy to implement, helping businesses in marketing, customer communication, and gaining market insights. The research, based on a survey of 609 business owners in Jakarta, found that social media aids in promoting products, reducing marketing costs, improving customer relationships, and expanding market reach. Despite challenges like content creation and managing negative feedback, the overall impact of social media on business performance is positive, offering significant advantages in marketing and customer engagement.[7]

The study "Social Media as a Catalyst for the Development of Tourism Business: A Study of Tourism Industry of Pakistan" by Khushboo Rafiq, Muhammad Kamil Lakho, and Kumail Abbas Jaffiry explores how social media influences the tourism industry in Pakistan. It uses a quantitative approach with 206 survey responses to understand the role of social media in enhancing tourism business. The findings suggest that people trust opinions and experiences shared by friends, family, and influencers more than traditional advertisements. Social media platforms like YouTube and Vlogs are particularly effective in influencing travel decisions. The study concludes that tourism companies should focus on earned media marketing tools rather than conventional advertising to better engage potential tourists and build credibility.[5]

### 1.3 Social Computing In Business Marketing

"Social computing in business marketing means using social media, online communities, and collaborative tools to connect with customers, build relationships, and promote products or services. Here's how it works:

**Social Media Marketing:** Businesses use platforms like Facebook, Twitter, and Instagram to share content, run ads, and interact with customers to get more people interested in what they offer.

**Content Marketing:** Businesses create and share helpful and interesting content like blogs, videos, and infographics to attract and keep customers engaged.

**Influencer Marketing:** Businesses team up with popular social media personalities to reach new audiences and build trust.

**Community Engagement:** Businesses create online spaces where customers can chat, ask questions, and support each other, building loyalty and advocacy.

**Social Listening:** Businesses use tools to listen to what people are saying on social media, helping them understand what customers like and what they don't.

**Customer Service:** Businesses use social media to quickly respond to customer questions and concerns, building trust and loyalty.

**Data Analysis:** Businesses study social media data to learn more about their customers and how to improve their marketing strategies.

Overall, social computing in business marketing helps companies connect with customers, build their brand, and reach their goals."

### 1.4 Research Methods:

To analyze the trend, data used in this paper is collected through a survey. The online business survey used in this research paper has 16 samples and data set has 13 attributes, online shopping survey has 129 samples and 14 attributes. The dataset consist of attributes as follows shown in the following table.

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Online business Survey the attributes considered for survey includes company name, location, category of business, domain of business, use of online platform for business, online posting of information, customer feedback, communication with stakeholders, addressing queries, addressing new product, and growth in business. The graphical representation of the business survey is as shown in following fig. 1.

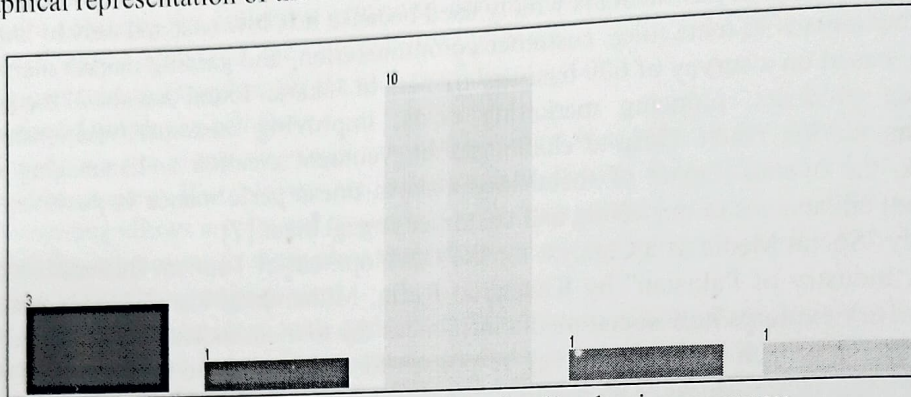


Fig 1 : Graphical representation of online business survey.

Online Shopping Survey covers information like name of person filling the online survey, location, gender, age group, family income, qualification, employment type, online purchasing, online shopping likes, frequency of purchase, experience rating, discovery of product and payment method. The graphical representation of the survey data is as shown in fig. 2

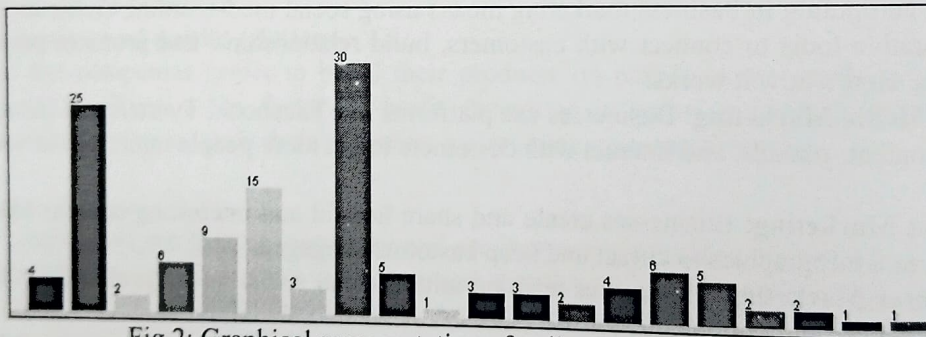


Fig 2: Graphical representation of online shopping survey

### 1.5 Results:

#### Data Model & Analysis

Weka knowledge explorer model for online shopping is as shown below.

The arff loader loads the data file and classification model is applied to generate rules on the data. The result is displayed using text viewer.

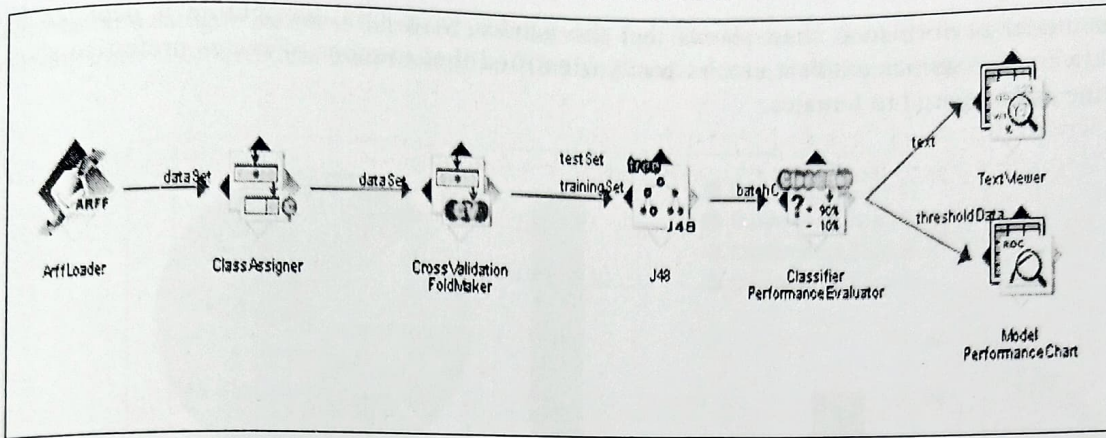


Fig3. Classifier model using knowledge flow

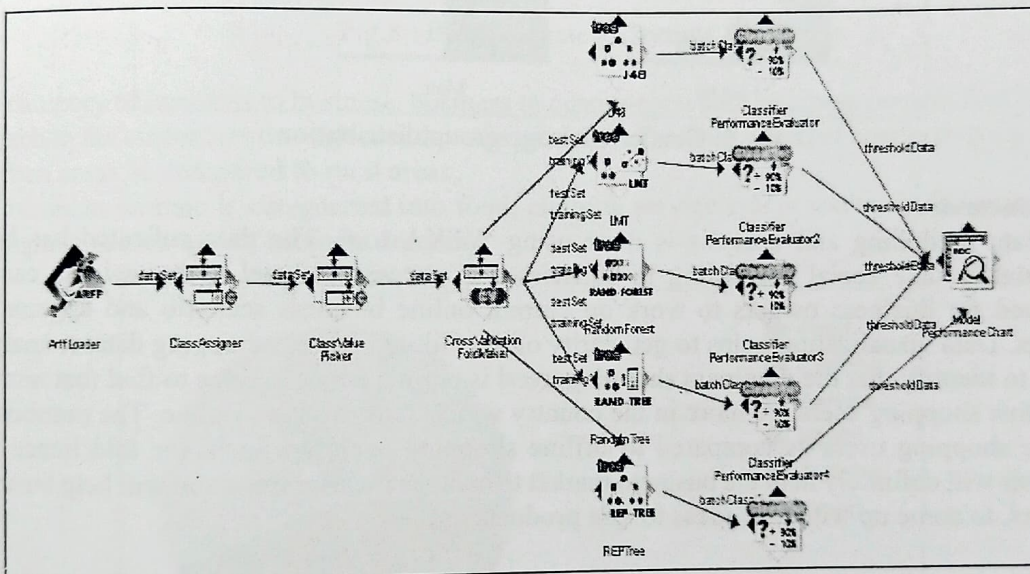


Fig 4. Model evaluation

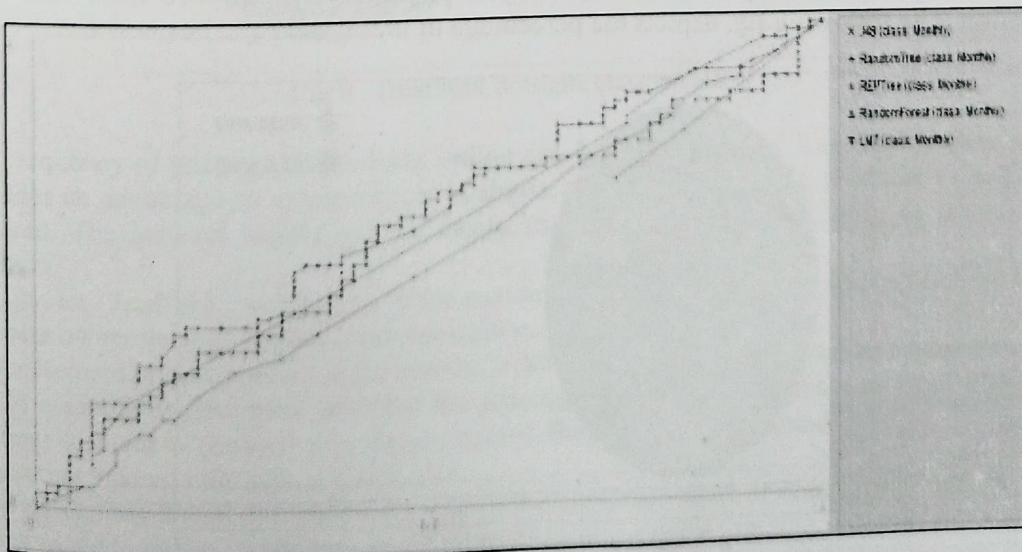


Fig 5. Model performance chart

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The model performance chart shows that the gender wise data distribution is depicted in following fig. as per graph it can be easily identified that number of males prefers to shop online as compared to females.

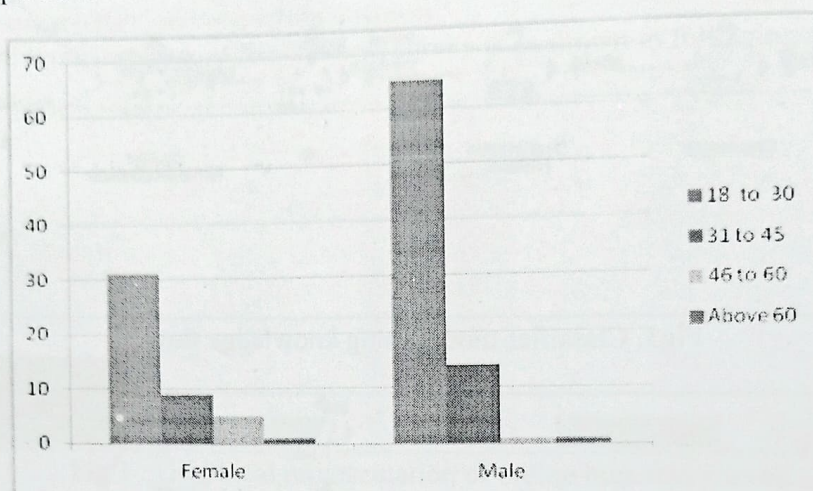


Fig 6: Gender wise age group distribution

### 1.6 Conclusion

The data modelling and analysis is done using WEKA tool. The data collected has huge potential to take social computing in businesses to successful level. Data insights can be obtained for business owners to work on current online business scenario and capture the market. Data visualization helps to get clarity of user liking. Online shopping dataset analysis helps to identify that the dominant shopping trend is online; hence it helps to find that number of online shopping users are more in the country which sells products online. The numbers of online shopping users as compared to offline shopping users are in larger fold hence this analysis will definitely help the business market to analyze the user trend and will help business owners, to come up with new ideas to sale products online.

### 1.7 Discussion

As per the business survey conducted the urban population contributed more than rural population. The following fig. depicts the percentage of urban and rural businessman.

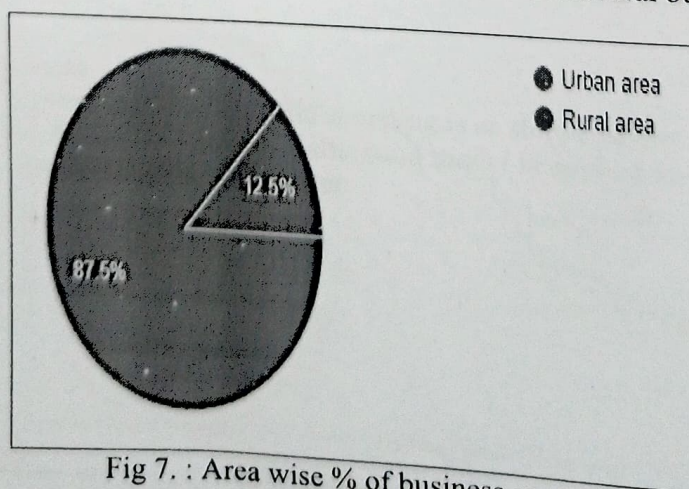


Fig 7. : Area wise % of business owners

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The business categorization is depicted in following fig. The business to customer contributors is comparatively more than business and customer to customer category.

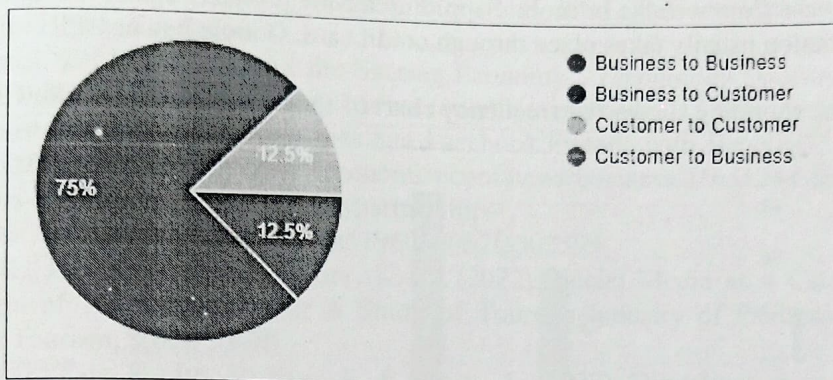


Fig.8 : Business categorization

The category of business to business, business to customers where business owners find it easy to reach to the customers through social media as usage of mobile, internet connectivity is more in urban areas as compared to rural areas.

The business domain is categorized into food, clothing service etc. is shown in following fig. the highest percentage of business domain

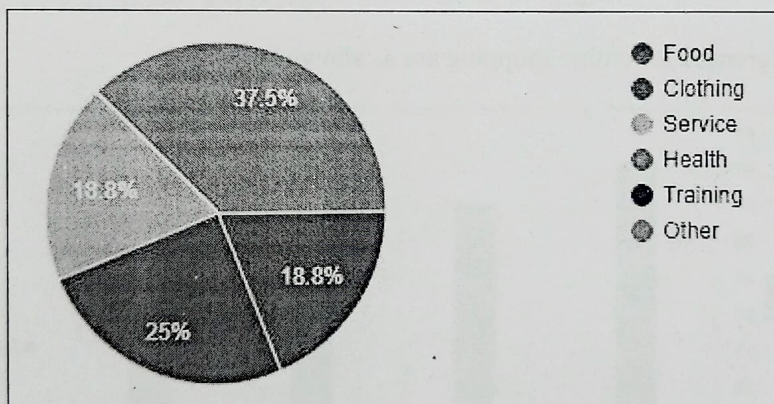


Fig 9 . Business domain classification

The frequency of posting the products online can be daily, weekly, monthly or quarterly. It provides an advantage to entrepreneur/ business owner to update the products as and when required. The demand supply can be easily managed with the flexibility to promote the products.

The queries / feedback / suggestion of the customers are addressed after every purchase by the business owner through written communication.

Advertisement of new product in the market is done using social media by the business owners. 98.3% business owners have said that the paradigm shift of doing business from traditional (offline) to modern (online) way has increased their profits levels and most of them prefer conducting business through social media.

Thus we can say social computing has brought a paradigm shift of conducting business from offline mode to online mode.



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According to the survey conducted for customers 94.6% of the people from urban areas, of different age groups between 18 to 45 years prefer online shopping. 68.3 % & 31% are post graduates and graduates respectively.

96.9% purchase from website or mobile app. Purchasing products online is convenient, saves time. Transaction usually takes place through credit card, Google Pay or UPI.

As per online shopping survey the frequency chart of shopping is listed in following fig.

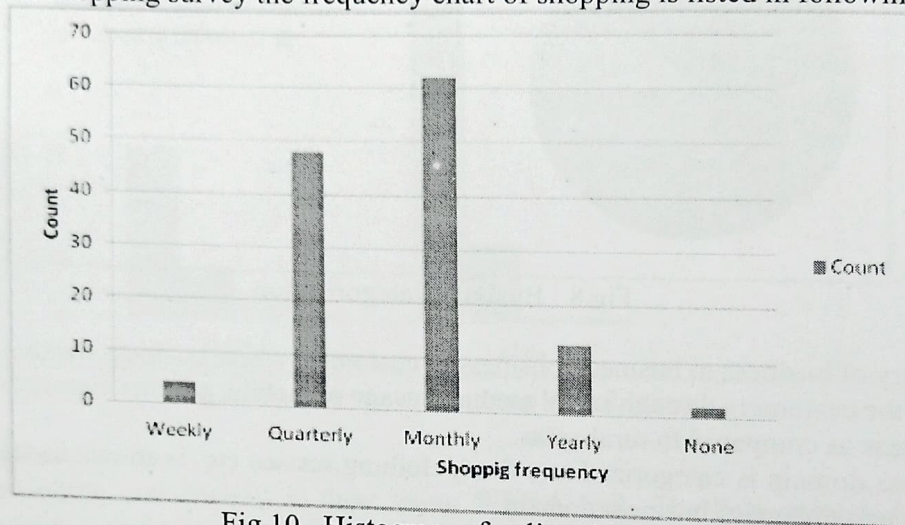


Fig 10 . Histogram of online shopping

Customer preferences for online shopping are as shown below

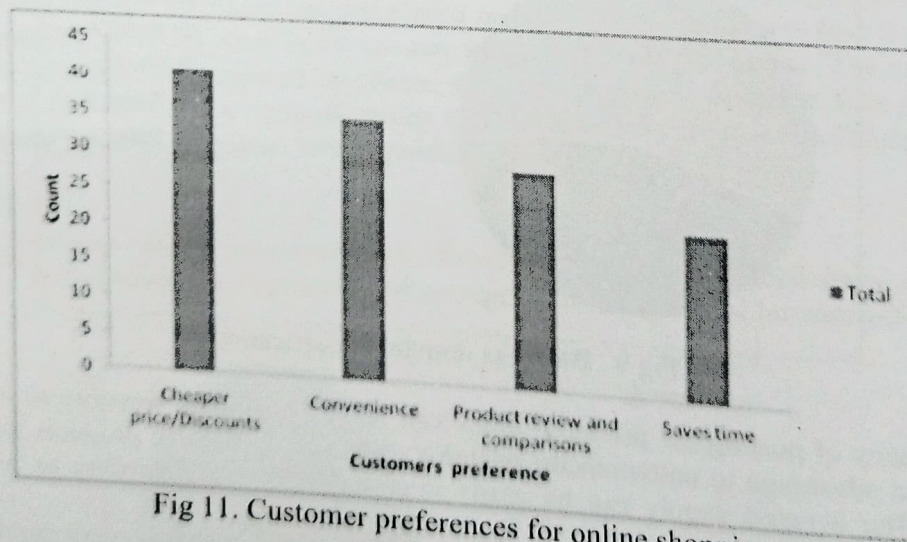


Fig 11. Customer preferences for online shopping

"Social computing is really helpful for daily tasks nowadays. [6] It's a system online that many activities use. Businesses that operate online find it super useful because social computing helps with different things. It's all done through the internet, using websites or apps to connect people.

In business, social computing is a big help. It makes processes easier and faster. And it's not just about the technology – people who manage these systems play a big role in making things run smoothly. Social computing doesn't just benefit businesses; it also helps consumers solve their problems. It's like a win-win for everyone involved!"

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### References

1. Airbnb. 2016. "Rent Unique Places to Stay from Local Hosts in 190+ Countries." Retrieved 17 January, 2016, from [www.airbnb.com](http://www.airbnb.com)
2. Blumberg, B., Cooper, D. R., and Schindler, P. S. 2011. *Business Research Methods*. McGraw-Hill Higher Education.
3. Economist. 2013. "All Eyes on the Sharing Economy." *Technology Quarterly* Q1 2013. Retrieved 1 February, 2014, from <http://www.economist.com/node/21572914/print>
4. Economist. 2015. "News Companies and Facebook: Friends with Benefits?" Retrieved 1 October, 2015, from <http://www.economist.com/news/business/21651264-facebook-and-several-news-firms-have-entered-uneasy-partnership-friends-benefits?zid=291&ah=906e69ad01d2ee51960100b7fa502595>
5. Rafiq, K., Lakho, M. K., & Jaffiry, K. A. (2022). Social Media as a Catalyst for the Development of Tourism Business: A Study of Tourism Industry of Pakistan. *Journal of Business & Tourism*, 8(02), 53-70.
6. Mujaya, J., Law, K., Ito, S., Sisu, J., & Grosu, A. (2023). Digitalization as a Factor for Business Survival: A Critical Analysis of Business Agility. In *Proceedings of the 16th International Management Conference*, pg (pp. 539-546).
7. Soelaiman, L., & Ekawati, S. (2022, May). The role of social media in enhancing business performance. In *Tenth International Conference on Entrepreneurship and Business Management 2021 (ICEBM 2021)* (pp. 400-404). Atlantis Press.
8. Smits, M., & Mogos, S. (2013). The impact of social media on business performance.
9. Lee, S. H., DeWester, D., & Park, S. R. (2008). Web 2.0 and opportunities for small businesses. *Service Business*, 2, 335-345.