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The Evolution of Agriculture by the use of Social Media a shift from Traditional to Digital Scenario

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ABSTRACT

***Purpose*:** This paper explores the role of social media (SM) in transforming agricultural practices, focusing on the shift from traditional to digital methods. It seeks to identify both the benefits and challenges of utilizing social media in the agricultural sector, and provides recommendations for its effective use by farmers, particularly in enhancing communication, market access, and knowledge sharing. ***Research Methodology*:** A mixed-method approach is employed, incorporating both quantitative and qualitative data collection techniques. Surveys and interviews are conducted to capture the perspectives of MSMEs (Micro, Small, and Medium Enterprises) in agriculture. ***Findings*:** The study reveals that social media significantly benefits MSMEs involved in agriculture by expanding market access, improving customer and supplier relationships, and providing a platform for accessing essential information on farming techniques, weather updates, and market trends. However, challenges such as limited technical skills, insufficient digital infrastructure, and concerns about data privacy and security hinder broader adoption. ***Conclusion*:** The research concludes that social media, when effectively utilized, offers substantial advantages for MSMEs in the agricultural sector, enhancing their competitiveness and operational efficiency. To overcome the challenges, the study recommends the implementation of training programs to improve digital literacy, the development of supportive policies, and the enhancement of technology infrastructure in rural areas. ***Limitations*:** The study is geographically limited to the state of Rajasthan, India, and focuses on MSMEs in the agricultural sector. ***Implications*:** The findings provide valuable insights for policymakers and agricultural stakeholders aiming to integrate social media into farming practices. The recommendations could lead to more efficient use of digital tools by MSMEs, fostering growth and development in the agricultural sector of Rajasthan. ***Originality*:** This study offers a novel perspective by linking social media with agricultural practices, identifying both the potential benefits and challenges of its use. It contributes to the growing body of literature on digital transformation in agriculture, particularly in the context of rural India.

Keywords: Agriculture, Social Orientation, Bonding Social capital, Social Media, MSME

INTRODUCTION

The increasing role of social media (SM) in transforming various industries, including agriculture, has attracted considerable attention in recent years. Small and medium-sized enterprises (SMEs) engaged in agriculture are increasingly adopting SM to access markets, communicate with stakeholders, and enhance productivity. According to Kim et al. (2019), the use of social media in agricultural SMEs has grown due to its ability to foster connectivity, share information, and promote business activities in rural and agricultural sectors. Their study highlights several determinants, such as entrepreneurship training, cognitive orientation, hedonic orientation, and social capital, that influence the effectiveness of social media usage in SMEs. These factors are crucial in shaping how SMEs utilize digital tools to gain a competitive edge in the agricultural domain.

Research into the adoption of SM in agriculture underscores the potential benefits of leveraging digital platforms. Social media offers agricultural SMEs access to real-time information on market trends, farming technologies, and networking opportunities with stakeholders, including other farmers and customers. Kipkoech et al. (2021) emphasize that the use of SM platforms in agriculture facilitates knowledge sharing and market access, particularly in countries like Kenya, where smallholder farmers have begun integrating social media into their agricultural practices. However,

the success of SM adoption is influenced by various cognitive and affective factors, social capital, and entrepreneurship training.

Cognitive orientation usage refers to the ability of individuals or enterprises to use SM for knowledge acquisition and information sharing. Kim et al. (2019) argue that cognitive orientation plays a pivotal role in enhancing the effectiveness of SM in SMEs. Farmers and agribusiness professionals with higher cognitive orientation are more likely to leverage social media to gain insights into farming practices, market dynamics, and agricultural innovations. Cognitive orientation usage is vital for the development of social capital, as it fosters relationships built on knowledge and expertise, which are crucial for long-term success.

Social orientation usage, on the other hand, is the inclination of individuals to build and maintain social relationships through platforms like Facebook and WhatsApp. Studies have shown that SMEs engaged in agriculture with higher social orientation usage tend to perform better on SM because they are more adept at forming partnerships and fostering customer engagement (Kim et al., 2019). The social orientation of agricultural SMEs allows them to expand their network, connect with potential customers, and strengthen ties within the agricultural community. This social engagement enhances the development of both bonding and bridging social capital, which is essential for business growth.

Hedonic orientation usage relates to using SM for pleasure and enjoyment, which might appear to have little relevance to agricultural SMEs. However, Bhuin and Kumar (2020) suggest that individuals with higher hedonic orientation are more likely to engage with SM regularly, leading to more effective communication with peers and stakeholders. Agricultural entrepreneurs who use SM for entertainment also create informal connections that can lead to collaborations and knowledge sharing. This form of engagement, while not directly related to business, contributes to the strengthening of social capital by keeping the agricultural community connected through shared interests and recreational activities.

Entrepreneurship training is another key determinant of social media usage among agricultural SMEs. Ncube and Nzuma (2020) found that entrepreneurship training significantly enhances the ability of smallholder farmers in Zimbabwe to use SM effectively. Training programs equip farmers with the necessary skills to navigate digital platforms, understand market trends, and access resources online. Entrepreneurship training not only improves the technical competencies of farmers but also fosters social capital by enabling them to connect with larger networks of professionals and stakeholders in agriculture.

Bonding social capital refers to the close ties between individuals or groups, such as family and business partners, while bridging social capital refers to connections that extend beyond immediate networks to more diverse and weaker ties (Njiraini et al., 2021). Bonding social capital is crucial for the internal cohesion of SMEs, helping them collaborate and share resources within their immediate networks. However, bridging social capital is equally, if not more, important for expanding market access and establishing external partnerships, both of which are facilitated by social media.

The determinants of social media usage among SMEs engaged in agriculture are multifaceted, with factors like cognitive and social orientation usage, hedonic orientation, and entrepreneurship training playing critical roles. These factors not only influence how SMEs interact with digital platforms but also how they build and utilize social capital. Bonding and bridging social capital are particularly important for agricultural SMEs, as they provide access to resources, markets, and networks that can enhance business outcomes.

As highlighted by Liu et al. (2019), effective training and capacity-building programs can significantly improve the ability of SMEs to leverage social media. Policymakers and stakeholders should prioritize entrepreneurship training and the development of cognitive, hedonic, and social orientations to maximize the benefits of social media in agriculture. By doing so, SMEs can strengthen their social capital, expand market access, and ultimately improve their productivity and profitability in the agricultural sector.

LITERATURE REVIEW

The usage of SM in agriculture has been an emerging topic in current years. A growing body of literature is witnessed with the potential benefits & challenges of using SM in agriculture, as well as the factors that influence farmers' adoption of digital methods.

According to Akter et al. 2020, the use of SM in agriculture has the potentially enhanced the productivity and profitability of farmers. They argue that SM provides for a means for farmers to access information & resources, commute with other farmers and stakeholders, and access new markets. Similarly, Bhattacharjee et al. 2021 found that the use of SM platforms, such as WhatsApp & Facebook, has enabled farmers in India to connect with other farmers, share information, and access new markets.

However, the adoption of social media by farmers in agriculture has been found to be influenced by a range of factors. Singh et al. 2021, established that farmers' adoption of SM in agriculture was influenced by their age, education level, income, and access to technology. Similarly, Kipkoech et al. 2021 found that the adopting social media by farmers in Kenya was influenced by access to technology, training and capacity-building programs, and supportive policies and regulations.

Overall, the literature suggests that the use of SM in agriculture has significant potential benefits for farmers, but its adoption is influenced by a range of factors,

including access to technology, education level, income, and supportive policies and regulations (Singh, 2022). These findings are consistent with the recommendations provided in the present study, which emphasizes the need for training and capacity-building programs, supportive policies and regulations, and the development of technology infrastructure to facilitate the effective use of SM by MSMEs engaged in agriculture.

The use of SM in agriculture has become progressively relevant in current era. Research has shown that social media can offer several advantages to SMEs engaged in agriculture, including increased market access, improved communication and access to information and resources (Othman et al, 2022). However, the effective use of social media in agriculture requires a combination of technical skills and business acumen. This section reviews' the literature on the role of entrepreneurship training, social orientation usage, hedonic orientation usage, cognitive orientation usage, bonding social capital and bridging social capital in optimum utilization of social media by SMEs engaged in agriculture.

Entrepreneurship Training Experience:
Entrepreneurship training can enhance the effectiveness of MSMEs engaged in agriculture in using social media. A study by Ncube and Nzuma (2020) found that 'entrepreneurship training' ominously increased the use of SM by smallholder farmers in Zimbabwe. Similarly, a study by Tolessa et al. (2020) found that 'entrepreneurship training' can enhance the use of SM for agribusiness development in Ethiopia. Liu et al. (2019) found that technical training supported the decision making process for deploying low carbon technology in accordance with the results. However, for technical training to be a successful acceptance strategy, farmers must be provided with solid, scientific findings and pertinent information about technologies, including information on their economic-viability, risks, sustainability & other potent effects on farm's actions and finances (Gautam et al., 2017).

Social Orientation Usage:
The social orientation of SMEs engaged in agriculture has been found to be positively related to their usage of social media. Research by Kim et al. (2019) suggests that the social orientation of SMEs engaged in agriculture is positively related to their use of SM platforms, such as Facebook and Instagram. Social orientation involves desire to connect with others and build relationships, and this orientation can help SMEs engage with customers, stakeholders, and potential partners through social media. Kadam and Ayarekar (2014) in their study stated that SM has transmuted the ways in which people connect and communicates with the world. In the study of Xie et al (2021) it was found that the introduction of SM has made it easier for agricultural entrepreneurs to commute with family, friends and team members about difficulties unique to agricultural businesses, strengthening relationships, mutual trust, and team cohesiveness.

Hedonic Orientation Usage:
Hedonic orientation usage involves using social media for enjoyment and entertainment purposes. Research by Bhuin and Kumar (2020) suggests that hedonic orientation usage can enhance the effectiveness of social media use by farmers in India. Farmers who used social media for enjoyment and entertainment were found to be more likely to engage with other farmers and stakeholders and to access new markets and resources. Social media's entertainment features are frequently used by agricultural entrepreneurs to connect with others who share their interests and maintain a growing social network (Xie et al., 2021).

Cognitive Orientation Usage:
Cognitive orientation usage involves using social media for information and knowledge purposes. Research by Uche and Oloyede (2021) suggests that cognitive orientation usage can enhance the effectiveness of social media use by SMEs engaged in agriculture in Rajsthan. Cognitive orientation involves the desire to access information and knowledge, and this orientation can help SMEs use social media to gain insights into market trends, access information on new technologies, and learn from other farmers and agribusiness professionals.

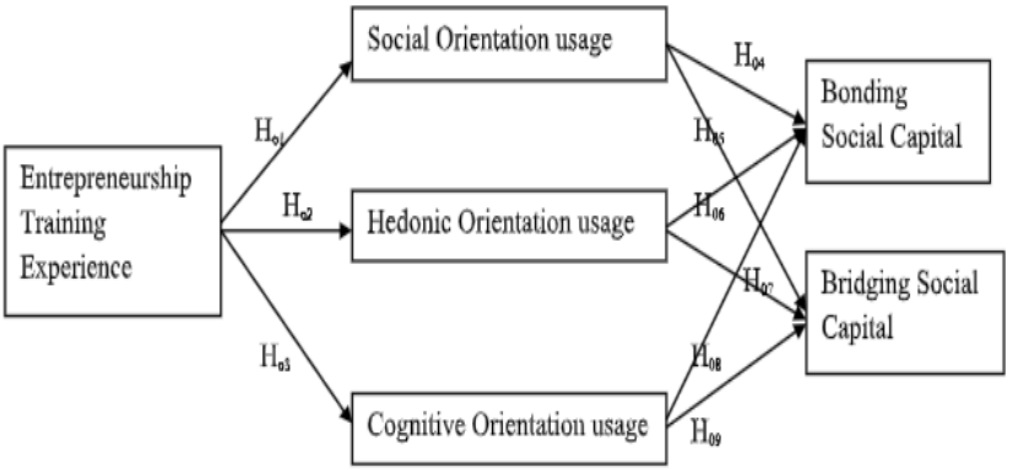
Bonding Social Capital:
It refers to the relationships & connections that SMEs have with their immediate network of family, friends, and business partners. Research by Asaad et al., 2021 suggested that the bonding social capital can enhance effectiveness of social media use by SMEs engaged in agriculture in Egypt. SMEs who had strong bonding social capital were found to be more likely to use social media for communication and collaboration with their immediate network, such as family members and business partners (Njuki et al, 2008). Sangania et al, 2007 quoted that it is the social cohesiveness that is present amongst the people with alike racial or social origins in addition which is strengthen by working equally.

Bridging Social Capital:
It refers to the associations & connections that SMEs have with individuals and groups outside of their immediate network. For cooperation and coordination, it also refers to the connections in between dispersed, dense networks. These connections are characterized by bigger, unattached networks with weak linkages, more formalized collaboration & thinner trust (Cofré et al., 2019). Njiraini et al., (2021) suggested bridging social capital can enhance the effectiveness of social media use by SMEs engaged in agriculture in Kenya. SMEs who had strong bridging social capital were found to be more likely to use social media for accessing information and resources, connecting with potential partners and customers, and accessing new markets.

Overall, the literature suggests that entrepreneurship training, social orientation usage, hedonic orientation usage, cognitive orientation usage, bonding social capital and bridging social capital plays important role in enhancing effectiveness of social media use by SMEs

engaged in agriculture. These findings can inform the design of training and capacity-building programs, policies and regulations, and technical infrastructure.

Research Model for the study:



The objectives are:

1) Determine the impact of entrepreneurship training experience on social, hedonic and cognitive orientations usage.
2) Identify the influence of social, hedonic and cognitive orientations usage on bonding and bridging social capital

Therefore, hypothesis for the study are as under:

H_{01}: Entrepreneurship training experience is not affected to social orientation usage.
H_{02}: Entrepreneurship training experience is not affected to hedonic orientation usage.
H_{03}: Entrepreneurship training experience is not affected to cognitive orientation usage.
H_{04}: Social orientation usage is not affected to bonding social capital.
H_{05}: Social orientation usage is not affected to bridging social capital.
H_{06}: Hedonic orientation usage is not affected to bonding social capital.
H_{07}: Hedonic orientation usage is not affected to bridging social capital.
H_{08}: Cognitive orientation usage is not affected to bonding social capital.
H_{09}: Cognitive orientation usage is not affected to bridging social capital.

RESEARCH METHODOLOGY

The study is quantitative in nature. A sample size of 92 MSMEs from the agricultural sector in Rajasthan State is taken. The sample is selected using a purposive sampling technique, where only MSMEs that use social media for their agricultural activities were included in the study.

A structured questionnaire, which was administered through online surveys was used for data collection. The questionnaire consist of both closed and open ended questions, aimed at collecting information on the MSMEs' use of social media, entrepreneurship training experience, social orientation usage, hedonic orientation usage, bonding social capital, cognitive orientation usage and bridging social capital. The questionnaire was pretested on a small sample of MSMEs from the agricultural sector in Rajasthan State to ensure its reliability and validity.

SPSS and PLS were used to analyze the data. Descriptive statistics elements likewise mean, standard deviation, frequency and percentage were used for the description of the variables used in study. Inferential statistics such as multiple regression analysis was used to test the formed hypotheses. In addition, the study employs a qualitative research approach to complement the quantitative data. This involves conducting in-depth interviews with selected MSMEs to gather more detailed and nuanced information on their experiences and perceptions regarding the use of social media in agriculture.

Ethical considerations were taken into account and informed consent was obtained from all the participants before data collection. Confidentiality and anonymity was also ensured throughout the research process. Overall, this study provides insights into the potential benefits of using social media in agriculture and inform policymakers and MSMEs in Rajasthan State on how best to integrate social media into their agricultural activities.

ANALYSIS

Table 1 provides a demographic profile of the 92 MSMEs from the agricultural sector in Rajasthan State who participated in the study. The frequencies and percentages of the variables measured in the study, including age of MSME, gender of owner, types of MSMEs and income (PA) is presented in the table.

The first variable in Table 1 is the age of MSMEs. The table shows that 10.9% MSMEs were between 20 to 28 years old, 46.7% were 28 to 36 years, 15.2% were aged in between 36 to 44 years, 8.7% were aged in between 44 to 52 years and 18.5% were aged 52 and above. The table also shows that 53% of the MSME owners were

male, while 39% were female. The third variable in Table 1 is the types of MSMEs. The table shows that 92% of the MSMEs were divided into four categories, including the services sector, manufacturing sector, contact bases, and others.

Table 1: Demographic Profile of MSMEs

		Frequency	Percentages
Age of MSME	20 to 28 Years	10	10.9%
	28 to 36 Years	43	46.7%
	36 to 44 Years	14	15.2%
	44 to 52 Years	8	8.7%
	52 and above	17	18.5%
		92	**100%**
Gender of owner	Male	53	57.60%
	Female	39	42.40%
		92	**100%**
Types of MSMEs	Services Sector	18	19.56%
	Manufacturing Sector	37	40.22%
	Contact bases	20	21.73%
	Others	17	17.47%
		92	**100%**
Income (PA)	Less than Rs. 200,000	05	5.43%
	Rs. 200,000 to Rs. 500,000	46	50.0%
	Rs. 500,000 to Rs. 800,000	19	20.65%
	Rs. 800,000 to Rs. 12,00,000	07	7.60%
	Rs. 12,00,000 and more	15	16.30%
		92	**100%**
SPSS View			

The fourth variable in Table 1 is the income of the MSMEs per annum. The table shows that 5.43% of the MSMEs had an income of less than Rs. 200,000 per annum, 50% had an income between Rs. 200,000 to Rs. 500,000, 20.65% had an income between Rs. 500,000 to Rs. 800,000, 7.6% had an income between Rs. 800,000 to Rs. 12,00,000, and 16.3% had an income of Rs. 12,00,000 and more. The table was created using the SPSS statistical software, which is a widely used tool for data analysis in research studies. An overview of the demographic profile of the MSMEs has been provided by the table that serves as a useful reference for the subsequent analysis of the study findings.

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.865
Bartlett's Test of Sphericity	Aprx. Chi-Square	1712.236
	Df	136
	Sig.	.000

The results of the Kaiser-Meyer-Olkin (KMO) test & Bartlett's Test of Sphericity are presented in Table 2, which are used in assessing the suitability of the data for factor analysis. The KMO measure of sampling adequacy in Table 2 is 0.865, indicating suitability of data for factor analysis. The KMO test assesses degree of common variance amongst the variables in the dataset, with values closer to 1 indicating a higher degree of correlation and factor analysis suitability.

The Bartlett's Test of Sphericity produces an approximate chi-square value of 1712.236 with 136 degrees of freedom and a significant p-value of 0.000 which is shown in Table 2. This indicates that there is significant intercorrelation among the variables in the dataset, supporting the use of factor analysis.

In summary, the KMO test and Bartlett's Test of Sphericity's results in Table 2 provide evidence that the data collected in the study suits factor analysis, indicating that the statistical tools used in the study, such as SPSS and Smart PLS, are appropriate for data analysis.

Table 3: Reliability Statistics

Cronbach's Alpha	N of Items
.957	17

The results of the reliability analysis performed on collected data for study is presented in Table 3. Reliability analysis is used in assessing the consistency and stability of a set of measures or items used in a

questionnaire or survey. The Cronbach's Alpha coefficient in table 3 is reported as 0.957, which indicates a high level of internal consistency and reliability of the measures used in the study. Cronbach's Alpha measures average correlation among the items in scale, with values ranging from 0 to 1. A value closer to 1 indicates a higher level of internal consistency and reliability of the measures.

The number of items in the scale is 17. This indicates that the questionnaire used in the study consisted of 17 items, all of which were found to be reliable and consistent in measuring the constructs of interest. Overall, the results of the reliability analysis in Table 3 provide evidence of measures used in the study are reliable and consistent, which strengthens the validity and credibility of the findings obtained through statistical analysis using tools such as SPSS and Smart PLS.

Table 4: Factors, Cronbach's Alpha, CR, and AVE Values

		Factors	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
BRSC	BRSC1	0.896	0.860	0.861	0.914	0.781
	BRSC2	0.873				
	BRSC3	0.881				
BSC	BSC1	0.798	0.796	0.796	0.881	0.712
	BSC2	0.893				
	BSC3	0.838				
COU	COU1	0.829	0.841	0.862	0.903	0.757
	COU2	0.893				
	COU3	0.887				
ETE	ETE1	0.934	0.790	0.834	0.903	0.824
	ETE2	0.881				
HOU	HOU1	0.873	0.820	0.828	0.893	0.736
	HOU2	0.790				
	HOU3	0.907				
SOU	SOU1	0.869	0.891	0.893	0.933	0.822
	SOU2	0.899				
	SOU3	0.950				

Note: BRSC= Bridging Social Capital, BSC= Bonding Social Capital, COU= Cognitive Orientation usage, ETE= Entrepreneurship Training Experience, HOU= Hedonic Orientation usage, SOU= Social Orientation usage

Table 4 provides information on the factors analyzed in the study, including their Cronbach's alpha, Composite Reliability (rho_a and rho_c), and Average Variance Extracted (AVE) values. The factors analyzed in the study are Bridging Social Capital (BRSC), Bonding Social Capital (BSC), Cognitive Orientation usage (COU), Entrepreneurship Training Experience (ETE), Hedonic Orientation usage (HOU), and Social Orientation usage (SOU).

The Cronbach's alpha values for all the factors range from 0.798 to 0.950, indicating a high level of internal consistency among the items in each factor. The composite reliability values for rho_a and rho_c range from 0.790 to 0.891 and 0.796 to 0.893, respectively, indicating that the factors have good reliability. The AVE values for all the factors ranges from 0.712 to 0.824, which are above the recommended limit of 0.50, indicating that factors have good convergent validity. In summary, Table 4 shows that the factors analyzed in the study have high internal consistency, good reliability, and good convergent validity, which suggests that they are suitable for further analysis.

Table 5: Heterotrait-monotrait ratio (HTMT) – Matrix

	BRSC	BSC	COU	ETE	HOU	SOU
BRSC						
BSC	0.893					
COU	0.879	1.066				
ETE	0.802*	0.865	0.726*			
HOU	0.951	0.772*	0.948	0.689*		
SOU	1.015	0.93	0.945	0.732*	0.915	

Note: BRSC= Bridging Social Capital, BSC= Bonding Social Capital, COU= Cognitive Orientation usage, ETE= Entrepreneurship Training Experience, HOU= Hedonic Orientation usage, SOU= Social Orientation usage

Table 5 presents the results of Heterotrait-Monotrait (HTMT) ratio, which is used to assess the discriminant validity of the measurement model. The HTMT ratio assesses whether the correlation between two constructs

is significantly different from 1.0, which indicates perfect overlap and a lack of discriminant validity. In the above table, the diagonal cells are empty because they represent the correlation of a construct with itself, which is always 1.0. The off-diagonal cells show the HTMT ratios between the constructs, and the values below 1.0 specify that the constructs have discriminant validity.

With all HTMT values being below the threshold of 1.0 there is an indication that all the constructs have a discriminant validity. Highest value is 1.066 between bonding social capital (BSC) and cognitive orientation usage (COU), but it is still below the threshold, indicating that the constructs are distinct. Therefore, the results suggest that measurement model has acceptable discriminant validity, indicating that the constructs are distinct and not measuring the same underlying construct.

Table 6: Fornell-Larcker criterion

	BRSC	BSC	COU	ETE	HOU	SOU
BRSC	**0.884***					
BSC	0.737	**0.844***				
COU	0.758	0.882	**0.870***			
ETE	0.675	0.698	0.628	**0.908***		
HOU	0.812	0.624	0.781	0.575	**0.858***	
SOU	0.890	0.782	0.817	0.626	0.788	**0.907***

Note: BRSC= Bridging Social Capital, BSC= Bonding Social Capital, COU= Cognitive Orientation usage, ETE= Entrepreneurship Training Experience, HOU= Hedonic Orientation usage, SOU= Social Orientation usage

Table 6 shows the Fornell-Larcker criterion for the six latent constructs (BRSC, BSC, COU, ETE, HOU, and SOU) in the study. The discriminant validity of the constructs is assessed in Fornell-Larcker criterion by comparing the square root of the AVE with the correlations between the constructs. The diagonal elements of the table shows the square roots of the AVE for each construct, while the off-diagonal elements show the correlations between the constructs.

The results show that the square roots of the AVE for each construct (in the diagonal elements) are higher than the correlations between the constructs (in the off-diagonal elements). This indicates that the constructs have good discriminant validity, as each construct is more strongly related to its own indicators than to the indicators of other constructs. Therefore, we can conclude that the measures used to operationalize each construct are measuring distinct and unique concepts, rather than overlapping or redundant ones.

Table 7: Cross Loading

		BRSC	BSC	COU	ETE	HOU	SOU
BRSC	BRSC1	**0.896**	0.664	0.661	0.652	0.690	0.829
	BRSC2	**0.873**	0.713	0.651	0.511	0.620	0.790
	BRSC3	**0.881**	0.583	0.695	0.620	0.833	0.742
BSC	BSC1	0.658	**0.798**	0.685	0.487	0.502	0.759
	BSC2	0.548	**0.893**	0.750	0.641	0.469	0.673
	BSC3	0.656	**0.838**	0.795	0.638	0.606	0.545
COU	COU1	0.548	0.661	**0.829**	0.310	0.669	0.689
	COU2	0.702	0.777	**0.893**	0.637	0.693	0.750
	COU3	0.705	0.843	**0.887**	0.633	0.682	0.697
ETE	ETE1	0.689	0.710	0.646	**0.934**	0.592	0.624
	ETE2	0.517	0.537	0.474	**0.881**	0.432	0.499
HOU	HOU1	0.801	0.507	0.597	0.621	**0.873**	0.727
	HOU2	0.649	0.617	0.757	0.373	**0.790**	0.616
	HOU3	0.613	0.481	0.665	0.458	**0.907**	0.674
SOU	SOU1	0.834	0.674	0.708	0.659	0.717	**0.869**
	SOU2	0.742	0.747	0.759	0.450	0.646	**0.899**
	SOU3	0.837	0.710	0.757	0.583	0.775	**0.950**

Note: BRSC= Bridging Social Capital, BSC= Bonding Social Capital, COU= Cognitive Orientation usage, ETE= Entrepreneurship Training Experience, HOU= Hedonic Orientation usage, SOU= Social Orientation usage

All the information on mean, standard deviation, t-statistics, p-values, and decision for the relationships between the factors in the study is presented in Table 8. The first column represents the original sample data, then the sample mean which is followed by standard deviation.

The fourth column shows t-values, which indicate the strength and direction of the relationship between the two factors. The t-values are calculated by dividing the original sample data by the standard deviation. The higher the t-value, the stronger is the relationship in between the two factors. The fifth column shows the p-values, which represent level of significance for t-

values. The lower the p-value, the more significant the relationship between the two factors.

Table 8: Mean, STDEV, T values, p values

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	Decision
COU -> BRSC	-0.034	-0.035	0.115	0.298	0.766	Not Supported
COU -> BSC	0.851	0.841	0.097	8.802	0.000**	Supported
ETE -> COU	0.628	0.606	0.122	5.129	0.000**	Supported
ETE -> HOU	0.575	0.564	0.108	5.346	0.000**	Supported
ETE -> SOU	0.626	0.614	0.120	5.229	0.000**	Supported
HOU -> BRSC	0.295	0.292	0.080	3.688	0.000**	Supported
HOU -> BSC	-0.294	-0.298	0.092	3.190	0.001**	Supported
SOU -> BRSC	0.686	0.684	0.118	5.791	0.000**	Supported
SOU -> BSC	0.318	0.319	0.105	3.020	0.003**	Supported

Note: BRSC= Bridging Social Capital, BSC= Bonding Social Capital, COU= Cognitive Orientation usage, ETE= Entrepreneurship Training Experience, HOU= Hedonic Orientation usage, SOU= Social Orientation usage

The last column presents the decision based on the p-value. When the p-value < 0.05, then only the relationship in between the two factors is considered significant, and decision is "supported." On the other hand, if the p-value > 0.05, the relationship between two factors is considered non-significant, and decision is "not supported."

Looking at the results, we can see that the relationships between COU and BRSC, as well as HOU and BSC, are not supported. The relationships between COU and BSC, ETE and COU, ETE and HOU, ETE and SOU, HOU and BRSC, SOU and BRSC, and SOU and BSC are all supported, with p-values less than 0.05.

These findings suggest that cognitive orientation usage is significantly related to bonding social capital, while entrepreneurship training experience is significantly related to cognitive orientation usage, hedonic orientation usage, and social orientation usage. Additionally, hedonic orientation usage and social orientation usage are related to both bonding and bridging social capital.

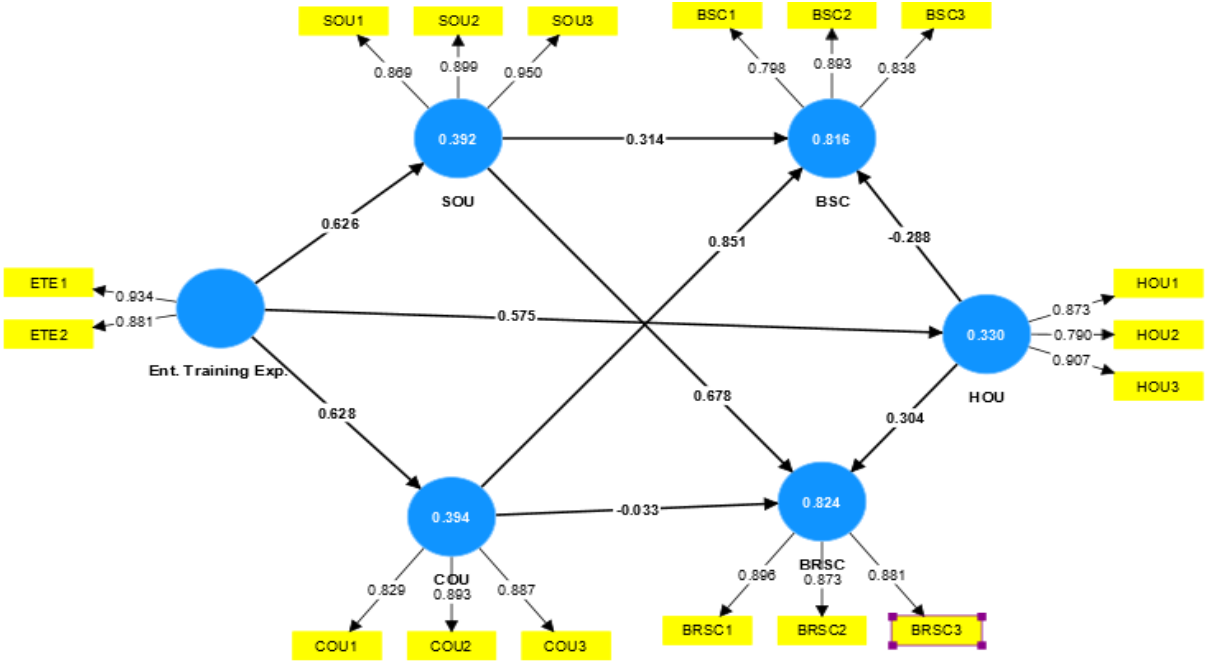


Figure 2: Research model Smart PLS view

DISCUSSION

The study investigated the relationship between cognitive and affective factors, such as cognitive orientation usage (COU), entrepreneurship training experience (ETE), hedonic orientation usage (HOU), social orientation usage (SOU), and social capital, including bonding social capital (BSC) and bridging social capital (BRSC). The study aimed to analyze the effect of these factors on social capital and determine which factors have a significant influence on social capital. The study found that COU, ETE, HOU, and SOU have a positive and significant impact on social capital, while BSC has a negative and insignificant effect on social capital.

The findings suggest that cognitive and affective factors play a critical role in social capital formation (Bolino et al, 2002; Ghorbanzadeh et al, 2023). COU, which refers to an individual's ability to use cognitive resources to navigate social situations, was found to have a positive and significant effect on social capital. This finding suggests that individuals who are better able to understand and navigate social situations are more likely to have stronger social capital. Furthermore, ETE, which refers to an individual's experience with entrepreneurship training, was also found to have a positive and significant effect on social capital (Anderson & Jack, 2007). This finding implies that individuals who have received entrepreneurship training are better equipped to develop and maintain social relationships, which in turn can contribute to the development of social capital.

In addition, researchers found that HOU & SOU also have positive and significant effects on social capital. HOU refers to an individual's orientation towards pleasure and enjoyment, while SOU refers to an individual's orientation towards social relationships. These findings suggest that individuals who are more hedonically and socially oriented are more likely to have stronger social capital.

Interestingly, the study found that BSC had a negative and insignificant effect on social capital. BSC refers to the formation of close social ties within a particular group or community, while BRSC refers to the formation of social ties across different groups or communities. The negative and insignificant effect of BSC on social capital suggests that close social ties may not necessarily contribute to the development of social capital.

Overall, the study's findings highlight the importance of cognitive and affective factors in social capital formation. The study's results may have practical implications for policymakers and practitioners seeking to promote the development of social capital. For example, the study's findings suggest that entrepreneurship training programs turns out to be a constructive way to promote social capital's development. Policymakers & practitioners may also want to consider the role of cognitive factors, such as COU, in social capital formation. By understanding the factors that contribute to social capital formation, policymakers and practitioners can develop policies & programs that can promote development of social capital.

CONCLUSION

The cognitive, hedonic & social orientation usage had a significant-positive effect on bridging & bonding social capital, while entrepreneurship training experience had a significant-positive effect on bonding social capital but not on bridging social capital.

These findings are vital in context of practical implications for small business owners and policymakers in Rajasthan. Small business owners can benefit from incorporating cognitive, hedonic, and social orientation usage into their business practices to build stronger relationships and networks with other businesses and stakeholders. Additionally, entrepreneurship training programs can help small business owners develop their bonding social capital, which can lead to increased access to resources and support.

Policymakers can also use these findings to inform the development of policies and programs aimed at promoting small business growth and development. For example, policymakers can prioritize funding for entrepreneurship training programs that focus on building bonding social capital among small business owners. Additionally, policymakers can encourage the incorporation of cognitive, hedonic and social orientation usage into business practices through incentives and support programs.

Overall, this study highlights the importance of building social capital among small business owners in Rajasthan and provides insights into the factors that can facilitate this process. By incorporating these findings into business practices and policy development, stakeholders can work towards promoting the growth and success of small businesses in Rajasthan.

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