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Journal of Agricultural Economics, Extension and Rural Development
Abbreviated Key Title: J. Agric. Econs. Extens. Rural Dev.
ISSN-2360-798X (Print) & Open Access
Vol 13: (9): Pp.: 130-143, 2025

Effect of Sociocultural and Economic factors on social capital: Trending to Business Development in Rural Ethiopia

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Accepted 5/8/2025

Abstract

Social capital is becoming a concern in development where access to financial capital is limited. It was assumed that social networks generate productive social capital that supports business activities. Using a mixed-method design, structured & semi-structured interviews were used to collect data from 300 households in Walmara district of Ethiopia. Analysis shows that education, family size, aboriginality, business training, and access to information significantly influence social capital, while landholding, livestock, income, access to information had stronger links at P<0.000 level of significance. Higher social capital, measured by network density, membership, and participation, were linked to greater social engagement. As social capital increases, reliance on rural associations for information decreases, shifting towards personal networks and digital sources. This highlights trending of social capital suggesting the socio-cultural and institutional factors to play crucial role to maintain social networks. This recommends incorporating social networking into policies and strategies that promotes rural business development.

Keywords: *Social capital, collective action, rural business, social network, Ethiopia.*

Journal of Agricultural Economics, Extension and Rural Development : ISSN-2360-798X Vol 13: (9):

1. INTRODUCTION

The concepts social capital and business activities are related as the former is implicit resource embedded in the network of people (Laurie et al, 2005); and the latter is the interaction of people in production cum marketing activities requiring various types of resources, and guarantee in the business deal, which Kate Maclean (2010) referred as a missing link in development. The development of social capital is increasingly recognized as critical component in rural business. It refers to networks, trust, norms, and social cohesion that enable individuals to work collectively (Putnam, 2000). In rural settings, where access to financial capital and infrastructure is limited, the strength of social capital influences business success, (Woolcock & Narayan, 2000).

Rural business relies on informal networks and local resources, making social capital essential for economic diversification (Flora & Flora, 2003), as it facilitates resource sharing, where formal support system is lacking (Pretty & Ward, 2001). Yet, some factors reported to contribute to social capital, including traditions, community organization, collective action, and institutions, with varying degree of influence at different business growth stages (Hitt et al., 2002). Recent studies highlight the evolving nature of social capital associated with rural infrastructure in network building (Liu et al., 2021), when limited institutional support appears the other factor necessitating informal networks for small rural businesses to sustain (Koutsou et al., 2020). The role of government and community based associations have also been underscored fostering rural innovation systems (David J.S et al, 2010). This implies how the dynamics of rural business increasingly requires both formal and informal support systems.

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Despite its significance, empirical studies exploring the specific factors contributing to social capital and its link with rural business development in Ethiopia remains scant. Few literatures state social capital synonymously with social institutions that are formed for limited social purpose. This conceptual gap is particularly due to the diverse socio-cultural landscape and business challenges confronting the society. Factors such as limited awareness, insufficient policy focus, and the nature of earlier researches in this area have contributed to a lack of comprehensive understanding of the factors that foster development of social capital; and their effect on rural business activities. This article explores factors that influence the development of social capital and its contribution to rural business, highlighting the effect of social capital dimensions and institutional support. It provides insights into how social capital can be leveraged to support sustainable business development in rural areas.

2. LITERATURE REVIEW

Social capital being in the attention of contemporary research, the concept is associated with demographic and socioeconomic variables as well as cultural traits. This review examines empirical literature to see the relationships of these factors highlighting key findings connected to social capital.

Social capital has relation with various socioeconomic and demographic variables most of which have certain associations based on the context of social setting (Bourdieu, 1986). This has shown crucial role of education in building social capital. Coleman (1988) has similar judgment focusing on civic engagement and political participation of people with higher educational attainment. These earlier studies were purposively quoted due to the fact that the scholars were pioneer in establishing theories related to social capital. From demographic variable related to social capital, family size is reported to either enhance or dilute social capital. Putnam (2000) has the perspective that families with larger size have a chance of expanding social networks; whereas Chikaodilli et al (2024) inversely reported that in rural Ethiopia.

While highlighting the multifaceted role of livestock in rural communities Bettencourt et al (2014) emphasized their significance as indicator of wealth, social status and economic security. When Behnke (2010). Complementing this idea, Adhikari (2011) reported livestock holding for having positive relationship with level of social capital which Songola et al (2024) considers as an economic resource that is intertwined with social capital for community based adaptation strategies to climate change, driving joint action. Engaging in social network to complement their land shortage for grazing through communal use of available resource was point of argument for Grootaert. Higher livestock ownership generally aligns with having stronger social capital, facilitating better use of communal grazing resources (Musoke, et al 2018). This goes with an opinion that small landholders have limited social capital. With landholding, Narayan & Cassidy (2001), favors the direct influence on social capital as larger holders have more social capital, and able to engage in social obligations.

Variables, including religious institutions provide a setting for both bonding and bridging social capital contributing to higher levels of social capital (Putnam, 2000). But Smidt, (2003) makes this relationship contextual and based on homogeneity. According to him, Protestant communities emphasize on individual level social capital; whereas, Catholic and Islamic communities foster communal level social capital. In any of the cases, the relationship between religion and social capital is mediated by norms that are valued by respective religions. Related to the earlier studies by pioneer theorists, Subchi and his colleagues (2024) identified key social capital factors and evaluated their impact on business development. Their findings highlighted the influential roles of religious institutions in leveraging social capital for business development. Nichter & Goldmark (2009) considers exposure to business training as a factor to foster social capital by sharing business opportunities, and creating access to market information.

Li et al (2022) studied how social participation affects social integration of aboriginal community into host community in China. The study found that informal participation having more significant impact in engaging migrant's adaptation to host societies. Brough and his colleagues add the effect of being immigrant to an area to limit the degree of engagement in social networks of the host community (Brough et al., 2006).

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3. METHODOLOGY

Description of study area

The study was conducted in Walmara district in Ethiopian. Selection was purposive associated with market-oriented production system and business orientation of the community. Its proximity to the central market was an assumed premise for emerging rural business activities, where social capital is assumed to drive effective business. The rural population is engaged in agriculture as the main source of livelihood, with mixed farming system that has been long staying in the area with cereals production dominating. Integrated farming system has been emerging with irrigation-based production, animal fattening, beekeeping among others (Zone Agri, 2020). These rural business activities have been emerging as copping mechanism to the shrinking farm land with increasing family size.

Research design

Mixed method research approach was adopted for complementary benefit of the qualitative and quantitative data based on Creswell (2007), who appreciates the approach to enable researchers have the notion of the social and cultural contexts of the study area; and to view events, actions, norms, and values from the perspective of the people under the study. The choice of mixed research design in this kind of study is also supported by Flick (2007) for the complementarity roles, which Bernard (2000) also stated the approach to identify, capture, codify and analyze social reality. It was based on these empirical evidences that the current study opted for mixed research design.

Data collection and analysis

Survey was used for collecting quantitative data using structured questionnaire from individual respondents; and semi structured checklist guide for Focused Group Discussion (FGD) and Key Informants Interview (KII) to address the need for qualitative data. These are commendable tools in social capital studies (Woolcock, 2001). Descriptive statistics and econometric analysis have been used for data analysis. A Chi Square test was used for dummy variables. The key output in this case is the p-values that determine whether the association appears significant. To check the mean difference of continuous (independent) variables, ANOVA was used with F-value as key output considered for interpretation.

4. RESULT AND DISCUSSIONS

4.1. Descriptive results of continuous variables.

The sample respondents for this study are people leading households, which could be male or female, widow or married who are in the business as a member of formal or informal groups. The data are therefore, a response of the persons who are assumed to be engaged in rural business practices.

Level of Education: The result indicated an average education level of respondents is the 2nd cycle (Grade 5-6) and is significantly correlated with level of social capital at 1% probability. Mean comparison across levels of social capital indicates positive association with mean levels of education increasing from 2.2 for low level social capital to the 3.13 for respondents with very high level of social capital. The *F-test* result (4.58**) shows statistically significant mean difference among levels of social capital in terms of level of education at 5% probability level. This suggests that higher education is linked to greater social capital, likely due to boarder social network and enhanced cognitive and relational aspects of social capital, such as common understanding, shared norms, and collective identity.

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Table 1: Level of Educational and family size vs level of social capital

	Level of education				Family size			
Level of Social capital	Mean	Std. Dev.	Freq.	F value	Mean	Std. Dev.	Freq.	F value
Low	2.20	1.0926981	61	4.58**	6.20	1.730	61	5.39**
Medium	2.53	1.293551	77		6.57	2.173	77	
High	2.72	1.6354759	90		6.74	2.144	90	
Very high	3.13	1.9205156	72		7.36	2.164	72	
Total	2.66	1.5614467	300		6.74	2.108	300	

Sources: *Own survey result (2023). ***,**,* means significant at 1%, 5% and 10% respectively*

Family size: An average family size of six persons per household was identified from the study area, which is significantly related with the levels of social capital at 1% probability level. Mean family size increases with levels of social capital as 6.2, 6.57, 6.74, 7.36 respectively for low, medium and high, and very high level. The implication is that larger families tend to have broader social networks and support systems, manifesting more social capital. The more social connections may also enhance bridging social capital by connecting to wider range of resources.. The *F-test* shows statistically significant difference in mean family size across social capital levels at 5% probability levels. This agrees with Putnam (2000) but contrasts Chikaodilli et al (2024) who reported family size as limiting engagement in social network.

Dependent family members: Result found an average of three dependent in the household, with mean values of 3.62, 3.53, 4 and 4.39 respectively for low, medium, high and very high-level social capital. This relationship is statistically significantly at 5% level implying that families with more dependents tend to develop higher levels of social capital. This is because the need to care for and support dependent family members often necessitates the need for strong bonding and collective responsibility. The presence of dependents encourage households to build deeper connections in the community, and rely on each other for emotional and practical supports. This engagement can help expand their bridging and linking social capital, providing chance for strong social cohesion. *F-test* confirms significant mean difference across levels of social capital. Relating dependents members in a family with level of household's social capital, while some studies (Abajobir, 2023; Nuss et al, 2021) support this link, and others (Chen and Liu, 2022; Kumi-Kyereme (2020) report a negative association, highlighting the context dependent and complex nature of relationship

Table 2. Results of dependent members and Livestock holding vs social capital

Level of Social capital	Dependents				Livestock holding			
	Mean	Std. Dev.	Freq.	F value	Mean	Std. Dev.	Freq.	F value
Low	3.62	1.65	62	4.26**	6.44	3.01	61	4.04***
Medium	3.53	2.06	76		5.82	2.82	77	
High	3.99	1.92	90		7.34	3.44	90	
Very high	4.39	1.97	72		7.40	4.09	72	
Total	3.89	1.94	300		6.78	3.44	300	

Sources: *Own survey result (2023). ***,**,* means significant at 1%, 5% and 10% respectively*

Livestock holding: This variable was measured in Tropical Livestock Unit (TLU), with an average holding of 6.78 units. This was significantly related to the levels of social capital at 1% probability level, with the mean holding of 6.34, 5.82, 7.34 and 7.40 for low, medium, high and very high social capital respectively. In rural areas,

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livestock is key indicator of wealth, social status, and economic security which leads to having broader social networks, due to engagement in communal activities like grazing and trading as also reported by earlier scholars (Bettencourt et al, 2014; Adhikari, 2011). This fosters trust, reciprocity, and shared norms, which are key elements of relational and cognitive social capital. The *F-test* (4.04) confirms statistically significant differences in livestock holding across levels of social capital. This agrees with many other scholars who have reported the smaller holdings limiting social capital and larger holdings with more social capital due to more social obligations attached to them (Songola et al 2024; Musoke et al 2018)

Land holding: An average land holding in the study area is 3.24 hectares. This value is significantly related with the levels of social capital. Mean comparison shows a mean holding of 2.51 (for low), 3.10 (for medium), 3.59 (for high) and 3.57 (for very high level of social capital). This study supports the fact that land ownership gives access to extensive social networks, fostering engagement in activities related to land resource uses. Additionally, land can provide opportunities for collective action and community-based activities, further strengthening the structural dimension of social capital. This makes land holding a meaningful proxy for rating social capital of households. The *F-test* (4.21) result shows statistically significant mean difference across the four levels of social capital at 1% probability levels.

The study aligns with Kassie et al, (2011) who reports a positive relationship between land holding and social capital; by considering the multifaceted nature of the relationship, Belay D. (2020) reported with reservation that participation and trust factors are more crucial for building social capital, than the land resource. Therefore, landholding should be viewed within broader context that includes socioeconomic and institutional factors that derive people participation in social interactions.

Land rent in: The study examined an average individuals' renting of 0.62 hectors. The mean difference in land rented across social capital levels (0.5 to 0.9 hectares) is statistically significant *F-test* (5.71***) suggesting a robust link between social capital and land rental behavior. This complements the argument made by Pretty (2003) that structural dimension of social capital facilitates economic transactions including land markets More recent studies like Jin & Deininger (2009) and Holden & Ghebru (2016) underscores the importance of informal instittuions and social networks in enabling land rental transactions, especially in settings where formal land tenure security is weak.

Land renting plays a dual role in shaping social integration with its impact heavily contxt dependent. It fosters inclusion by enabling land access and economic ability, as shown by De Janvry et al., (2001); on the other hand, t it may constrain long term investment weakening social ties (Place, 2009; Deininger and Jin, 2008; Plateau, 2000). This makes an overall influence of land rental on social capital appears to be context dependent. The study's finding that individuails with very high social capital rent less land suggests adverse effect of renting on social cohesion at the upper end of social capital spectrum. This reinforces evidence from Lawry et al (2017) and Holden et al (2016) that the effect of land rental are shaped by local tenure systems and the strength of customary instittuions making rental outcomes highly dependent on social and institutional context.

Table 3. Descriptive results of land holding and land rental of sample respondents

Level of Social capital	Land holding *(F- value=4.21***)*			Land rent *(F- value=5.71***)*		
	Mean	*Std. Dev.*	*Freq.*	*Mean*	*Std. Dev.*	*Freq.*
Low	2.52	1.12	61	.51	.80	61
Medium	3.11	2.11	77	.66	.78	77
High	3.59	2.21	90	.91	1.18	90
Very high	3.57	2.30	72	.32	.81	72
Total	3.24	2.07	300	.62	.95	300

Sources: *Own survey result (2023). ***,**,* means significant at 1%, 5% and 10% respectively*

Annual income: Rural household income is largely seasonal, particular to farm produce. An average annual farm income reported by respondents is Ethiopian Birr 164360 which is significantly related with the levels of

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social capital at 1% level of significance. Mean comparison across the four tiers of social capital shows a positive trend: households with low, medium, high and very high social capital respectively report mean annual income of 118724, 142690, 175006 and 213222, all units in Ethiopian Birr[1]. Wider social capital typically provides greater chance of making income through the network of people. This finding is consistent with recent empirical studies in Ethiopia. Tura et al (2023) found strong social network and participation in community were associated with increased farm income. Similarly, Fekadu and Wubshet 2023) reported that both cognitive and structural dimensions of social capital significantly improved access to agriculture technologies enhancing farm productivity. It also enables access to self-development as indicated by some of the key informants[2]. Conversely, lower-income individuals may have fewer opportunities to engage in social activities, potentially limiting their social capital. Therefore, annual income can be taken as an important factor to determine stock of social capital. The *F-test* shows statistically robust (P<0.001) relationship between social capital and income reflecting an evidence for its meaningful effect on social networking. Dejene & Negash (2013) conceptualized social capital as an informal safety net in times of economic crises; and stated social capital as not only correlates with income but also contributes to its enhancement.

Annual saving: The study found that average annual saving of households amounted to 60574 Ethiopian birr and significantly related with levels of social capital at 1% probability level. Mean comparison shows a saving of 54662, 43458, 69760 and 72442 birr for low, medium, high and very high level of social capital respectively. Similar to the findings of annual income, the wider social network appears to serve as informal financial safety net to economic shocks. This supports the findings of Duguma et al (2023) who highlighted that participation in community based associations foster financial resilience by encouraging saving through trust and collective norms. The effect of social capital on saving not only enhances individual's sense of security and stability, but also improves the connectivity of members to the diverse social and financial structures.

Table 4. Annual income and Annual Saving Vs Level of social capital

Level of Social capital	Annual Income				Annual Saving			
	Mean	Std. Dev.	Freq.	F value	Mean	Std. Dev.	Freq.	F value
Low	118724.19	89586.218	61	12.36***	54662.131	45876.613	61	7.35***
Medium	142690.79	79308.016	77		43458.961	33039.403	77	
High	175006.67	97437.831	90		69730.889	51141.286	90	
Very high	213222.22	117145.9	72		72442.917	42284.867	72	
Total	164360.00	102274.03	300		60574.667	45217.42	300	

Sources: *Own survey result (2023). ***,**,* means significant at 1%, 5% and 10% respectively*

4.2. Result of dummy variables

Religion: The study found that religion plays a significant role in shaping social capital among rural households. Protestant followers made up the majority (60.7%), followed by Orthodox Christians (31%), Muslim (5%) and Waaqeffataa[3] (3.33%). The Mean comparison across social capital levels showed notable vaariabtions in religious representation, with all Waaqeffataa adherents fell within the medium to very high level of social capital, indicating stronger group cohesion. The relationship between religion and social capital was statistically significant at 5% level.

[1] 1Birr = 0.02 USD January, 2023

[2] Key infrmants- Obbo Kuusaa and Aadde Ayyaantu, at Burkusami Gaba Robi village

[3] Waaqeffataa- is an indigenous religion in Oromoo community of Ethiopia

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Religious participation foster bonding social capital, characterized by close relationships, trust, and a shared identity, while rituals and community involvement also promote bridging social capital, enabling opportunities for diverse social interaction. This finding has conformity with earlier studies (Stark & Finke, 2000) that highlight the role of religious institutions in fostering social capital by facilitating networks that support economic and social engagements. The social capital theorist Putnam (2000) believes that religious participations promote bonding and bridging social capital.

In Walmara district, religious networks especially linked to Orthodox orientation, facilitate social capital through practices like *Sambate* (Sunday gathering) *Iqqub* (local saving), and *Iddir* (Mutual aid). These traditions help cultivate communal ties and facilitate access to social and economic resources. Consistent with Smidt (2003) the study also suggests denominational differences: Protestant community tends to build individual level social capital; while Orthodox communities foster more collective social capital. In any of the cases, the relationship between religion and social capital is mediated by norms that are valued by respective religions.

Table 5. Descriptive results of religion of sample households

Religion	Low	Medium	High	Very high	Total	Chi square
Protestant	49	39	47	47	182	18.617**
	16.33	13.00	15.67	15.67	60.67	
Orthodox	10	29	33	21	93	
	3.33	9.67	11.00	7.00	31.00	
Muslim	2	6	5	2	15	
	0.67	2.00	1.67	0.67	5.00	
Waaqeffataa[4]	0	3	5	2	10	
	0.00	1.00	1.67	0.67	3.33	
Total	61	77	90	72	300	
	20.33	25.67	30.00	24.00	100.00	

Sources: *Own survey result (2024). ***,**,* means significant at 1%, 5% and 10% respectively*

Aboriginality: Residents are categorized as original (72%) and immigrants (27%) in the study community. The attempt was to see if aboriginality appears to be factor for building social capital. Statistically significant mean comparison ($P<0.05$) showed that original residents are more likely to fall under higher levels of social capital. The result suggests that aboriginality of individuals have significant impact on building social capital, particularly in terms of engagement in social networks. Individuals with stable, long-term residency have stronger bonding social capital, as they have had more time to establish deeper relationships, inferring active participation in community matters.

Similar study (Brough et al., 2006) considered aboriginality most characterized by bonding social capital, with a tendency to limit bridging social capital. The case in Walmara indicates that the community with bonding social capital are rather encouraged to bridge with immigrants in the area. Key informants[5] have a say on this as, it is the cultural obligation to integrate new groups of people into their social system.

Extension Service use: the study depicted 46% of respondents use of agricultural extension services, with clear trend showing higher level of social capital among users. The Mean comparison indicated 7, 13, 18 and 18%

[4] *Waaqeffataa*: is an indigenous religion in Oromoo community of Ethiopia.
[5] Key informants-Burkusami Gaba Robi village, Obbo Yaadata Garbo

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of extension package users to fall in low, medium, high and very high levels of social capital respectively. This relationship was statistically significant at 1% probability levels, suggesting that engagement in the service si slinked to stronger social network and trust. While the direction of causality remains uncertain, the finding supports the idea that extension service help in building social capital by fostering interaction, information sharing and collaboration among community members and institutions involved. This aligns with Feder *et al*. (2004) who found that access to extension services correlates with increase in both bonding and bridging social capital, through enhanced networking. However, the effect of extension services in building social capital heavily depends on trust on service providers, and the type of extension approaches used. Pretty (2003) has a report to state that trust based inclusive models are more effective in strengthening community ties and foster cooperative behavior.

Table 6. Descriptive results of residence status of sample households

Originality	Low	Medium	High	Very High	Total	Chi square
Original	40	53	63	62	218	8.99**
	13.33	17.67	21.00	20.67	72.67	
Immigrant	21	24	27	10	82	
	7.00	8.00	9.00	3.33	27.33	
Total	61	77	90	72	300	
	20.33	25.67	30.00	24.00	100.00	

Table 7. Descriptive results of extension package use of sample households

Extension package use	Low	medium	High	very high	Total	Chi square
Yes	22	41	56	56	175	35.16***
	7.33	13.67	18.67	18.67	58.33	
No	5	11	9	2	27	
	1.67	3.67	3.00	0.67	9.00	
Discontinued	19	17	20	9	65	
	6.33	5.67	6.67	3.00	21.67	
Have not heard about	15	8	5	5	33	
	5.00	2.67	1.67	1.67	11.00	
Total	61	77	90	72	300	
	20.33	25.67	30.00	24.00	100.00	

Sources: *Own survey result, (2023). ***,**,* means significant at 1%, 5% and 10% respectively*

Resource Share: Key resource considered in this study is the farm implements of any kind. The attempt was to see if people share resources among members in the network. Majority (82.3%) expressed their views for willingly sharing, few proportions (7%) denies due to traditional beliefs[6]. The Mean comparison of sharing resources across the levels of social capital is declining (7, 3, 3 and 3%) for those who are not sharing and inclining to the higher level of social capital (13, 22, 27 and 20%) for those who are sharing. The association was statistically significant at 1% probability levels. In this context, resource required for rural business development

[6] Traditional beliefs-in some instances considered as threat to social capital, when in other cases appear to be driving force

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can be acquired through individuals' social network, hence considered as mediating factor to influence rural business,. Conversely, those with limited practice of sharing farm equipment may have fewer opportunities to engage in community based activities, constraining their chance of using the social capital available.

Business training: Business training was found to foster social capital of individuals operating in the rural community. The result revealed 58% of respondents had received business trainings and 41% not. Those with the training were more likely to exhibit higher level of social. 21% and 13% of the sample fall in the, high and very high levels of social capital comparing to those without training. This comparison was statistically significant at 5% level suggesting a meaningful link between business training and enhanced social capital. Furthermore, skills and knowledge gained through business training can enhance individual's cognitive social capital, enabling them to better navigate on the business landscape, identify market opportunities, and wider range of business partners. As supported by early theorists Grootaert and Van Bastelaer (2002), access to knowledge and skill is key driver of social capital, especially in resource limited rural setting. Similarly, Hong (2004) emphasizes entrepreneurship training to foster not only individual capacities but also social connectivity for business success.

Table 8. Descriptive results of share of farm equipment of sample households

Do you share?	Low	Medium	High	very high	Total	Chi square
No	22	11	9	11	53	18.72***
	7.33	3.67	3.00	3.67	17.67	
Yes	39	66	81	61	247	
	13.00	22.00	27.00	20.33	82.33	
Total	61	77	90	72	300	
	20.33	25.67	30.00	24.00	100.00	

Sources: *Own survey result (2023). ***,**,* means significant at 1%, 5% and 10% respectively*

Table 9. Descriptive results of business training of sample households

Training?	Low	Medium	High	Very high	Total	
No	34	32	25	33	124	12.16**
	11.33	10.67	8.33	11.00	41.33	
Yes	27	45	65	39	176	
	9.00	15.00	21.67	13.00	58.67	
Total	61	77	90	72	300	
	20.33	25.67	30.00	24.00	100.00	

Sources*: Own survey result (2023). ***,**,* means significant at 1%, 5% and 10% respectively*

Information sources: The study found remarkable relationship between information source and social capital in rural Walmara. This aligns with existing literature in Ethiopian context. Main information sources are described with key results derived from the study.

Personal network: the study indicated 56% of respondents relay on personal connections for information, correlating with higher levels of social capital. This supports the findings of Mekonnen et al (2016) who observed the larger social network for positively influencing farmers' participation in cooperatives, enhancing social capital. The Mean comparison is significant at 5% probability level. Obtaining information from personal networks has a significant impact (positive or negative) on individual's social capital. On the positive

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side, the interactions can contribute to bonding social capital. However, sharing of incredible information can also lead to erosion of social capital as echoed by Abiche (2012).

Business associations: The study shows 70% of respondents not using formal associations as source of information. Mean comparison indicated 12, 20, 19 and 18% of household falling respectively in low, medium, high and very high levels of social capital indicating families who depend on associations are categorized under low level social capital. This may be due to limited social networking. This comparison was statistically significant at 5% level of significance.

Table 10. Descriptive results of source of business information (Relatives and Rural Associations)

Info from Personal Relatives							**Info from Rural Associations**					
	Low	Medium	High	Very high	Total	**Chi square**	**Low**	**Medium**	**High**	**very high**	**Total**	**Chi square**
No	35	37	34	25	131	8.87**	36	62	58	55	211	10.33**
	11.67	12.33	11.33	8.33	43.67		12.00	20.67	19.33	18.33	70.33	
Yes	26	40	56	47	169		25	15	32	17	89	
	8.67	13.33	18.67	15.67	56.33		8.33	5.00	10.67	5.67	29.67	
Total	61	77	90	72	300		61	77	90	72	300	
	20.33	25.67	30.00	24.00	100.00		20.33	25.67	30.00	24.00	100.00	

Sources: *Own survey result (2023). ***,**,* means significant at 1%, 5% and 10% respectively*

This finding contradicts with some old and even recent literatures (Daniel, 2020; Woolcock, 1998) that appreciate rural associations for providing structured opportunities for interaction, and information sharing. The case in Walmara is slightly different in that the more formal the association is, the more it tends to serves interests of the government than the community. Hence, that is not dependable source for rural business owners.

Market Centers: About 90% of respondents claim that market centers are potential source of business information, with higher levels of social capital associated with increased access to market place information. This association is significant at 5% probability levels. The practice of opting information from market centers facilitates bridging social capital by connecting individuals across different social groups.

Table 11. Descriptive results of personal information from market place

Infor Mkt Places	**Low**	**Medium**	**High**	**Very high**	**Total**	**Chi square**
No	56	58	73	51	238	9.87**
	18.67	19.33	24.33	17.00	79.33	
Yes	5	19	17	21	62	
	1.67	6.33	5.67	7.00	20.67	
Total	61	77	90	72	300	
	20.33	25.67	30.00	24.00	100.00	

Sources: *Own survey result (2023). ***,**,* means significant at 1%, 5% and 10% respectively*

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Journal of Agricultural Economics, Extension and Rural Development
Abbreviated Key Title: J. Agric. Econs. Extens. Rural Dev.
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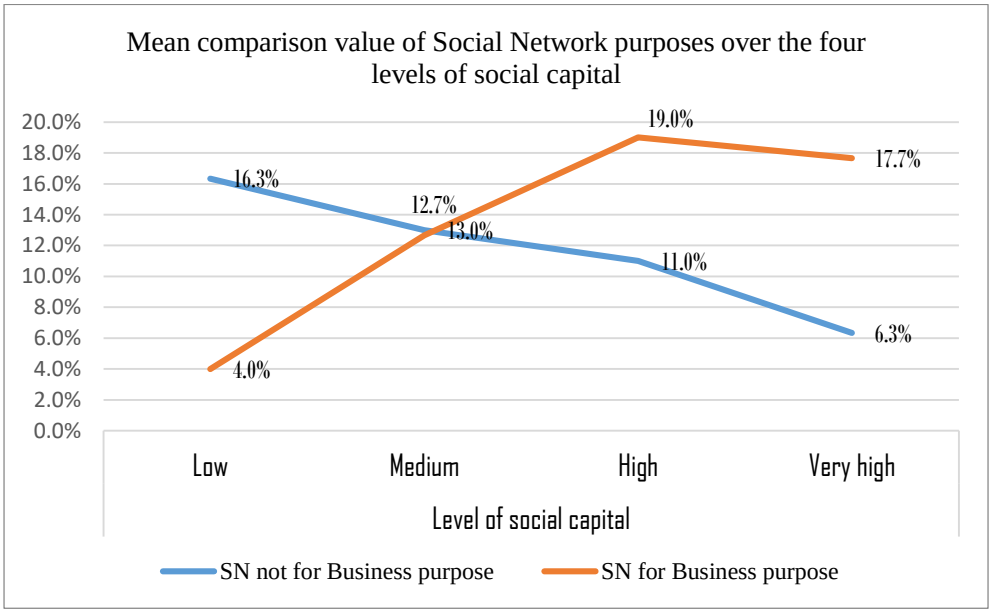
Digital media **(Radio or TV)**: The result shows 68% of the sample household to obtain information from radio/TV. The Mean comparison indicated an increasing level of social capital for those who access digital information (12, 13, 20 and 21%). The result was significant at 1% probability level. However, the impersonal nature of mass media may limit the development of bridging social capital, keeping people to their small social circle.

Table 12. Descriptive results of Mass media use verses levels of social capital

Radio/TV A	Low	Medium	high	very high	Total	Chi square
No	23	36	29	8	96	23.05***
	7.67	12.00	9.67	2.67	32.00	
Yes	38	41	61	64	204	
	12.67	13.67	20.33	21.33	68.00	
Total	61	77	90	72	300	
	20.33	25.67	30.00	24.00	100.00	

Sources: *Own survey result (2023). ***,**,* means significant at 1%, 5% and 10% respectively*



The graph illustrates how respondents secure market information from their social networks including neighbors and friends for business or social purposes. This is remarkably true as social capital is linked with bridging. As the level of social capital increases, the need for people to involve in social network tends to be for economic purpose. At the lower level of social capital, the essence for being in a social network is more for social non-economic matters. In conclusion, the study contributes to the understanding of how different information sources influence social capital in rural Ethiopia. While personal networks and market places enhance bonding and bridging social capital respectively, the role of formal associations and mass media is more complex and context dependent. Integrating these findings with literature highlights the importance of strengthening the linkages between local associations and external institutions to maximize the potential of social capital in rural development.

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4.3. Study limitations

It is unlikely to assume inclusive and complete research with respect to theoretical base , conceptual definition, methodologies and scope of analysis. When we consider the scope of the concept social capital, we imagine limitation of the study in terms of area coverage, respondent category, and type of data collected. As the concept is wider, the research could have come up with in-depth findings if more districts of different agro ecologies were considered. By the same token, there are many entities interacting in the social system that affect the social network and the business interaction in a rural community. The fact that data collection only considered rural household, left information from their business connections elsewhere. This could appear as limitation. Besides, the study was restricted to the social settings when political and economic elements do also have impact on building social capital and the engagement in business activities. This necessitates considering more components than addressed in this study. Future research would likely complement by considering formal institutions providing services for the rural community, the political hemisphere guiding the social interaction and policies that determine the business growths. Further elaboration may be required by delineating social networks initiated by local people on their common interest and those initiated by political agents, which was stated in the current study area.

5. Conclusion and recommendations

This study agrees with many related literatures to infer a contextual and multidimensional relationship between social capital and socioeconomic variables that were discussed in detail. Social capital is both influenced by and influential upon these variables, creating a dynamic interaction that varies across different social, economic, and cultural contexts. With respect to social circumstance, institutional services, exposure to trainings, and the access to information, social capital is associated with such variables as religion, Aboriginality, extension service use, resource sharing, business training, and sources of information. Whether in the form of bonding or bridging, it enhances trust, cooperation, and resource sharing across various contexts. These variables interact with social capital to promote economic development, community resilience, and collective wellbeing. The very commendable inference from this study is that understanding the relationship of these complex variables can provide valuable insights for policymakers aiming to foster social cohesion, encourage collection action and collaboration for improved economic outcomes at individual level and collective impact at community level.

Key recommendation extrapolated from this study could be the need for strategic design of rural development programs, in particular business activities in the center of social interaction that strengthen network of people from which social capital is generated. This is a capital form that is found to contribute to economic growth in often times, when financial capital and access to that is limited or unavailable. The socioeconomic and cultural factors associated to social capital in turn contributing to the rural business development activities require policy systems intervention to leverage social capital in rural development planning, as much as their focus on financial capital. Market information, Institutional support, collective action, and power of bargaining are all possible through social capital, and hence need to get policy attention in development planning.

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