

Mediating Role of Social Norms on the Relationship between Perceived Behavioral Control and Credit Utilization Intention

Alio, D.¹, Okiror, J.J.¹, Agea, J.G.¹, Mubangizi, N.¹, Twase, I.¹ & Nsereko, I.²

¹Department of Extension and Innovations studies. Makerere University, P.O. Box 7062, Kampala, Uganda

²Makerere University Business School, P.O Box 1337, Kampala, Uganda

Corresponding author: deborah.alio@yahoo.com

Abstract

Credit utilization enhances agricultural productivity to trigger rural development, but little is known about the credit utilization intention of the smallholder farmers who are the main borrowers in the areas. This study assessed the mediating role of social norms on the relationship between perceived behavioral control and credit utilization intention among borrowers under savings and credit cooperatives arrangements in Soroti district in Eastern Uganda. Results of structural equation modelling of perceptions of 257 smallholder farmers borrowers, showed up to 65% of credit utilization intention to be predicted by attitude ($\beta=.484$, $t\text{-value}=4.294$, $p<.05$) and perceived behavioural control ($\beta=.384$, $t\text{-value}=2.299$, $p<.05$). Bootstrap results indicated the mediation effect of perceived behavioral control and credit utilization intention. This leads to conclusion that attitudes and perceived behavioral control are important predictors of smallholder farmers' intention to use credit in agricultural production. It is therefore recommend that governments should incorporate social and Behavior Change campaigns as part of the credit programs.

Key words: Credit Utilization, Theory of Planned Behavior, SACCO, Uganda

Résumé

L'utilisation du crédit améliore la productivité agricole pour déclencher le développement rural, mais on en sait peu sur l'intention d'utilisation du crédit des petits exploitants agricoles qui sont les principaux emprunteurs dans les régions. Cette étude a évalué le rôle médiateur des normes sociales sur la relation entre le contrôle comportemental perçu et l'intention d'utilisation du crédit parmi les emprunteurs dans le cadre des coopératives d'épargne et de crédit dans le district de Soroti, dans l'est de l'Ouganda. Les résultats de la modélisation par équations structurelles des perceptions de 257 petits exploitants agricoles emprunteurs ont montré que jusqu'à 65 % de l'intention d'utilisation du crédit pouvait être prédite par l'attitude ($\beta=.484$, $t\text{-value}=4.294$, $p<.05$) et le contrôle comportemental perçu ($\beta=.384$, $t\text{-value}=2.299$, $p<.05$). Les résultats du bootstrap ont indiqué l'effet de médiation du contrôle comportemental perçu et de l'intention d'utilisation du crédit. Cela conduit à la conclusion que les attitudes et le contrôle comportemental perçu sont des prédicteurs importants de l'intention des petits exploitants agricoles d'utiliser le crédit dans la production agricole. Il est donc recommandé que les gouvernements intègrent des campagnes de changement social et comportemental dans le cadre des programmes de crédit.

Mots-clés: Utilisation du crédit, Théorie du comportement planifié, SACCO, Ouganda

Introduction

Credit utilization is recognized as an important component of rural development strategies for the agricultural sector. It contributes between 30 and 60 percent of the gross domestic product (GDP) for many low income countries (Jaffe *et al.*, 2019). Credit utilization has increasingly been regarded as an important tool for raising the incomes of rural populations, mainly through resources mobilization for more productive activities within the agricultural savings and credit cooperatives (SACCOs). Effective utilization of credit significantly reduces hunger, enhances food security and alleviates poverty by increasing the purchasing power of the farmers (Oladokun, 2019). As such the government of Uganda has established a number of agricultural loans through Micro finance support center, commercial banks like Post bank, centenary and other credit schemes. However, after loans disbursement many farmers continue to divert loans, deviating away from the intended loan purpose (Effiong *et al.*, 2020).

Globally, for example in Latin America, initiatives to improve provision of credit in agricultural productivity and rural development has focused on the development of SACCOs as a tool for poverty alleviation and rural development. Indeed SACCOs are the most significant channel of credit with 66% of participation compared to 34% of private banks in Latin America. SACCOs were thus established to address the inconsistencies like the long turnaround time before loan appraisal and loan disbursement in commercial banks (Rodriguez, 2019). In Rwanda, the Government has adopted an Economic Development and Poverty Reduction Strategy (EDPRS II), with Financial Sector Development as one of its key components. Measures to develop the financial sector in Tanzania have also been put in place and aligned to achieve sustainable economic growth via private sector development. Initiatives to improve credit provision have included the development of the microfinance sector, and some Non-Bank Financial Institutions (NBFIs) that include; insurance companies, pension funds, and insurance intermediaries (Musengamana, 2019). In Tanzania, Savings and credit cooperative societies play a great role in supporting the business sector as well as in national development. This resulted in the wide spread formation of SACCOs as the most appropriate financial institutions for addressing the financial needs of the rural poor. Currently, there are over 3,589 SACCOs, serving about 190 million borrowers in Tanzania (Mapunda, 2019).

For the case of Uganda, the expansion of credit programs such as SACCOs has stimulated increase in volumes of agricultural credit for rural farmers. Unfortunately, a large number of these credit programs have not met the intended purpose of increasing agricultural productivity and assisting rural poor through increasing income generating activities. This is reflected in failed programs namely; Poverty Alleviation Project (PAP), Entandikwa Credit Scheme (ECS), Youth Entrepreneurship Fund (YEF) (Muhumuza, 2013), cooperative credit scheme (CCS) (Mugabi, 2010; Peace, 2011), progressive farmers loan scheme (PFLS) and Rural Farmers Credit

Schemes - RFCS (Matovu and Luke, 2013; Muhumuza, 2013). The failure of these rural credit schemes resulted in the development of SACCOs as the most appropriate avenues to provide credit to rural farmers for enhanced agricultural productivity and achieve rural development.

However, a number of studies have indicated diversion of agricultural credit to consumption rather than productive purposes among SACCO borrowers. Factors contributing to credit diversion behaviors of rural farmers has been attributed to negative attitudes towards SACCO credit (Fiorillo, 2006; Mkomochi, 2013), influence from other actors on borrowers (Action aid, 2013) and inefficiencies in credit management within SACCOs (MOFPED, 2013; Mitei *et al.*, 2016; Gatimu *et al.*, 2018). To address credit diversion problems, corrective procedures have been instituted including; provision of fresh loans, loan rescheduling, imposition of punishing interest rates, denial of additional credit to repeat defaulters, management takeover of problem projects and legal actions. In Kenya management of loan diversion has involved the use of proper loan appraisals, timely reminders on repayment by loan borrowers and timely follow up on defaulters (Mitei *et al.*, 2016) as well as loan restructuring, use of guarantee policies, monitoring practices and use of loan recovery agencies (Gatimu *et al.*, 2018). In Tanzania, SACCOs have used credit management strategies such as assessment of loan applications, proper evaluation and recovery of pledged collateral and monitoring of borrowed funds and borrower businesses (Musengamana, 2019).

In Uganda, efforts to improve credit use among smallholder farmers has mainly been through formation of farmers' groups, use of group solidarities and screening of borrowers before credit disbursement (Muhumuza, 2013). In spite of government and SACCOs' initiatives, credit diversion remains a major challenge for most savings and credit cooperatives in most countries (Mapunda, 2019; Musengamana, 2019) including Uganda (Muhumuza, 2013; Kalule, 2013). It therefore becomes imperative to investigate factors influencing credit utilization intentions.

Many factors can influence borrowers' intentions to use credit which greatly influences its actual use (Sari and Rofaida, 2011; Mbawuni and Nimako, 2015). Intentions to use credit has been strongly linked to attitudes towards credit, subjective norm and perceived behavioral control (Kim *et al.*, 2016; Aril *et al.*, 2018; Dalila *et al.*, 2020). Besides, extant literature has explored the determinants of intentions to use credit (Sari and Rofaida, 2011; Leong *et al.*, 2013; Mbawuni and Nimako, 2015). Others instituted mobile banking (Yunus, 2014; Morosah and Defranco, 2016; Singh and Srivastava, 2018). However most of these studies have been conducted in developed countries. In addition few studies have been conducted on credit utilization intentions and those done mainly focused on online banking (Kaur and Arora, 2020) and financial inclusion (Katoroogo, 2016).

There is a growing shift towards incorporating theoretical frameworks from social psychology to improve the understanding of farmer utilization of credit to better inform policy (Schluter *et al.*, 2017; Daxini *et al.*, 2019). One such theoretical model that has received considerable interest is the Theory of Planned Behavior (TPB) (Ajzen, 1991). In Uganda, few studies (Katoroogo, 2016) have applied the TPB to examine the relationship between attitude, perceived behavioral control, social norms and credit utilization intentions. However the mediating role of social norms on the relationship between perceived behavioral control and credit utilization

intentions has not been explored. This creates a theoretical and practical intrigue given that perceived ability to use requested funds could influence user intentions and peer influence could modify perceived ability, needs and intentions (Cai *et al.*, 2014; Ntunzwenimana, 2018). Therefore this study uses the TPB to explain factors that predict credit utilization intention among SACCO borrowers. Specifically the study aimed to test the hypothesis that: *H1, perceived behavioral control positively influences social norms; H2, attitude positively influences credit utilization intentions; H3, social norms positively influences credit utilization intentions; H4, perceived behavioral control positively influences credit utilization intentions; and H5, Social norm positively mediates the relationship between perceived behavioral control and Credit utilization intentions among credit users in Soroti district.*

Materials and Methods

Data used in this study were collected in July and Sept of 2020, using a cross-section survey design, based on a mixed methods approach. This was deemed suitable for satisfying the goal of obtaining information about the perceptions regarding credit users, because perceptions are known to be situated with specific time. Eligible participants, were the 257 SACCO members who had accessed credit facilities, drawn from a sample frame of 750 members from 11eleven SACCOs suited in Soroti District in Uganda using proportionate random strategies by group. The SACCOs were purposively selected because the aim was to reach SACCOs involved in giving out agricultural loans to smallholder farmers, which was deemed to be an unevenly spread out feature among the study units.

Measurement, data collection and data analysis

Qualitative data was collected using a five-point Likert scale (*strongly disagree = 1 through strongly agree = 5*), adapted from relevant previous studies. Items for Attitude were adapted from Ajzen (1991); Liñán and Chen (2009); Shook and Bratianu (2010); Han *et al.* (2015); Palamida *et al.* (2017); Esfandiar *et al.* (2019). Those for Subjective norm were adapted from Ajzen (1991); Ham *et al.* (2015); Paul *et al.* (2017). While those for perceived behavioral control were adapted Ajzen (1991) and Han and Hyun (2017). The dependent variable, credit utilization was assessed at intention level using items adapted from Han and Hyung (2017) and Zhang *et al.* (2018).

Trained enumerators administered the questionnaire. The reliability of the data was adequate, given that the obtained Cronbach's alpha values of 0.86 for, self-interest, rationality = 0.83, decision making = 0.87, and credit utilization = 0.83, compared to the acceptable range of 0.70 and 0.90 (Taber, 2018). Hypothesis testing was done using structural equation modeling (SEM) in SPSS version 21, with the aid of AMOS version 22. SEM was chosen for its ability to simultaneously estimate data and model diagnostics along with estimating any hypothetic relationship (Mittal and Dhar, 2015).

Qualitative data were collected using focused group discussions involving 125 SACCO members and key informant interviews involving twenty two SACCO staff. The qualitative data were analyzed using content and

Results and Discussion

Diagnostic results. Results of confirmatory factor analysis indicated that the credit utilization model fitted the data well (Byrne, 2012), with a comparative fit index (CFI) of 0.975 (spec. ≥ 0.95), a Tucker–Lewis index (TLI) of 0.969 (spec. ≥ 0.95), a root mean square error of approximation (RMSEA) of 0.67 (spec. ≤ 0.08), and $\chi^2 = 146.440$, and degree of freedom (df) = 2. 0, (spec. ≤ 3). Goodness of Fit Index (GFI) of 0.92 (spec. ≥ 0.90), Normal Fit Index (NFI) of 0.95 spec. ≥ 0.90), passed the minimum standards (Byrne, 2012; Hair *et al.*, 2019) for the resultant to model to be reported.

Hypotheses testing. Table 1 summaries the path analyses, whose concern was on testing the hypothesized relationships (*H1 to H4 stated in the background*). Broadly, attention should be drawn on *column 3 and 5*. Palamida *et al.*, 2017)h attitude and perceived behavioral control had significant effect on credit use, the biggest effect was from attitude (48%), followed by perceived behavioral control (39%). This could have been due to the fact that attitude is the basis upon which perceptions related to credit utilization are formed.

Table 1. Testing the hypotheses H₁, H₂, H₃ and H₄

				S.E.	B	t-Value	P	Decision
H1	SN	<---	PBC	.075	.725	10.380	***	Yes
H2	CUI	<---	ATI	.083	.484	4.294	***	Yes
H3	CUI	<---	SN	.055	.049	0.709	.478	No
H4	CUI	<---	PBC	.112	.384	2.299	.003	Yes

*** $P \leq 0.001$

Hypothesis H₁ investigated the relationship between perceived behavioral control and subjective norms. The results show that the relationship is positive and statistically significant ($\beta = .725$, $t\text{-value} = 10.380$, $P \leq .05$) and thus the hypothesis was supported. Given that Perceived behavioral control associated with exogenous items that related with PCB4 = I am confident that if I want I can use credit well, PCB7 = It is easy for me to utilise credit and PCB8 = If I want I could easily use credit, it could imply that positive changes in Subjective norms is associated with positive changes in perceived behavioral control. This means that other people's opinions significantly increased the confidence, and easiness of SACCO members which influenced the immediate utilization of credit. The result is comparable to those in studies by (Kyer-Duodu and Yamoah (2012); Uzun and Kilis (2020). For example, Kyere-Duodu and Yamoah (2012) and Ejigu and Filatie (2020) found that subjective norms had no significant relationship with intention to adopt Internet banking. Huda *et al.*, (2012) argue that intentions are highly dependent on one's self which ultimately affects one's behavior as opposed to opinions from others around them such as parents, relatives or friends. The present result contradicts previous results reported in the financial field (Ahmed *et al.*, 2019; Bano *et al.*, 2019; Daxini *et al.*, 2019; Mercedes *et al.*, 2020) that have found social norm to be an important determinant of intentions towards behavior. Thus credit utilization decisions based on consultation with others such as parents and friends may play a crucial role in encouraging utilization of credit to non-income generating activities.

Likewise, Hypothesis H2 examined the relationship between Attitude and Credit utilization intention. The results indicated that attitude and Credit utilization intention are positively related and the association is statistically significant ($\beta=.484$, $t\text{-value}= 4.294$, $p<.05$), thus the hypothesis was supported. This indicates that positive changes in attitude are associated with positive changes in Credit utilization intention. This implies that SACCO members who have positive opinions enjoy financial reward of utilizing credit productively and consider credit utilization as a wise and good activity. This is illustrated by a participant in one of the focus group discussions as follows:

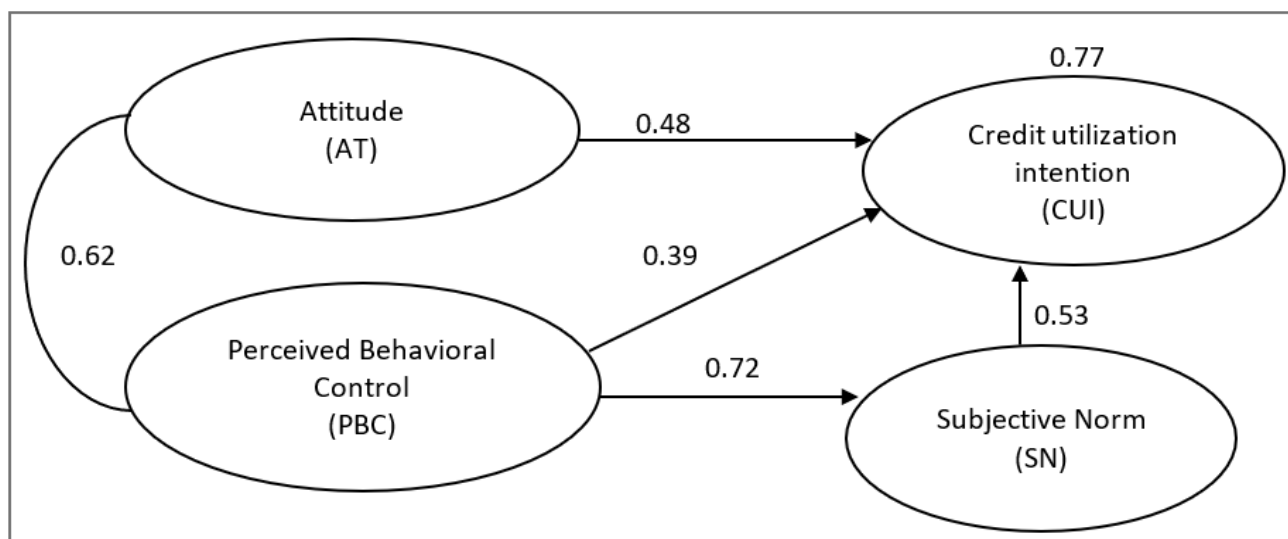
“Credit utilization is a means of getting profit and it leads to development within my home because I can use it to acquire more things like land for farming and also when I use credit properly it becomes easy for me to get another loan”. (P 9: FGD 13, 2020).

Similar results were obtained by Ahmed *et al.* (2019), Phan *et al.* (2019) and Bano *et al.* (2020) who obtained direct positive and significant impact of attitudes on intention. Furthermore, Hypothesis H3, tested the relationship between Social norms and Credit utilization intention. The results revealed that social norms and Credit utilization intention were not significantly related ($\beta=.049$, $t\text{-value}= 0.709$, $p>.05$). Therefore the hypothesis was not supported. The result is comparable to those of Kyere-Duodu and Yamoah (2012) and Uzun and Kilis (2020). Ejigu and Filatie (2020) found that subjective norms construct had no significant relationship with intention to adopt Internet banking.

Additionally, Hypothesis H4 investigated the relationship between perceived behavioral control and credit utilization intention. The results show that perceived behavioral control and credit utilization intention relationship was positive and statistically significant ($\beta=.384$, $t\text{-value}=2.299$, $p<.05$), and thus the hypothesis was supported. This implies that positive changes in perceived behavioral control are associated with positive changes in credit utilization intention. This indicates that SACCO members who have self-confidence and perceive credit utilization as an easy activity are most likely able to utilize credit within the next six months and one year. This is in line with qualitative findings. For example one participants noted that:

“The trainings I get from SACCO helps me use the credit properly and i usually get trainings on how to use credit, how to manage my business and keeping records by Enterprise Uganda”. (P 2: borrower, 2020)

This finding corroborates with Yu *et al.* (2018) who found no significant effect of subjective Norm on the intention to use. The findings are in line with the Theory of Planned Behavioral which ascertains that attitude, perceived behavioral control and subjective norms influence the person’s intention to perform an action, specifically an intention to perform a behavior of using the credit given to you well (Ajzen, 2011).



Summary of model parameters: CMIN = 146.440; df = 72; P = 0.000; CMIN/df = 2.03; GFI = 0.919; AGFI = 0.900; NFI = 0.953; TLI = 0.969, CFI = 0.975 and RMSEA = 0.067.

*** $P \leq 0.001$, ** $P \leq 0.01$, * $P \leq 0.05$

Exogenous variables. Credit utilization intention (CUI) was explained by three items; CDI= I intend to utilise credit within the next one year, CDI2 = I intend to utilise credit within the next three months and CDI3= I intend to utilise credit within the next six months. Attitude (AT) was explained by four items; AT6: I have a positive opinion about utilizing credit, AT7 = The financial reward of effectively utilizing credit at my own business is enjoyable, AT8 = In my opinion utilizing credit for the purpose I acquired it for is a good activity and AT10 = I think that utilizing credit in my business would be an interesting task.

Perceived behavioral control (PBC) was explained by three items, PCB4 = I am confident that if I want I can use credit well, PCB7 = It is easy for me to utilise credit and PCB8 = If I want I could easily use credit, Subjective norm (SN) was explained by three items, SN1 = Other SACCO members expect me to utilise credit well, SN2 = My participation in credit utilization is often influenced by how other community members want me to behave and SN3 = If I wanted to utilise credit for the purpose in I acquired it for my parents' opinions are important to me.

Figure 1 Empirical estimation of predictors of credit utilization intention

The R^2 value of 0.77 credit utilization intention, means that attitude, subjective norm and perceived behavioural control which were the specific predictors in this study explained up to 77% of the total variation of credit utilization intention of the smallholder farmer in SACCOs in Soroti district. Precisely, the Hypothesis H_5 which the bootstrap results (Table 2) indicate significant mediation effect ($\beta = .035$, $p < .05$) of Social norms in credit utilization intention. Further, the standardized indirect effect termed as index of mediation for the indirect effect of social norms was 0.35 (95 percent, CI (0.35, 0.725). This implies that credit utilization intention receives 35% of the indirect effect from perceived behavioral control through social norms, while the remaining 65% is a direct effect. This indicates that social norms can directly cause variations in credit utilization intentions without the indirect effect through perceived behavioral control. This implies that SACCO members who are confident will make effort to utilize credit well but this will depend on the support from committee members and how

they will want them to use the loans. The finding agrees with Sun *et al.*(2020) who emphasized the Mediating effects of attitude, subjective norms and perceived behavioral control for mobile payment-based hotel reservations.

Table 2. Mediation role of social norms

Standardized Total Effects		Perceived Behavioral Control	Attitude	Social norms		
Social norms		.725	.000	.000		
Credit utilization intention		.421	.484**	.049		
Standardized Direct Effects						
Social norms		.725	.000	.000		
Credit utilization Intention Diversion		.385	.484**	.049		
Standardized Indirect Effects						
Social norms		.000	.000	.000		
Credit Utilization Intention		.035	.000	.000		
Bootstrap Mediation Results						
Path		Point estimate	S.E	Lower Bounds	Upper Bounds	P
Credit Utiliza- ← tion Intention	Perceived Behavioral Control	.035	.077	.114	.710	.001

*** $P \leq 0.00$, ** $P \leq 0.01$, * $P \leq 0.05$

Conclusion and Recommendations

The study concluded that attitude of SACCO members are based on financial literacy of members and influence opinions in regard to credit utilization. It should be emphasized that SACCO members need to be sensitized on how to handle credit positively. The study also concludes that SACCO members who think the utilizing credit is beneficial for them, will keep on doing so in order to achieve their aims and objectives. The study therefore, recommends that governments should implement attitude change campaigns and preach positive attitude in all the programmes that are aimed at financing of SACCO members so that they can use the borrowed money for the intended purpose. Additionally, more emphasis should be placed on social Network formation which can be strengthened through clearly defined roles and responsibilities among different actors and provision of incentive packages such as salaries for board members to reduce on cases of fraud and corruption among SACCO officials.

Acknowledgment

This paper is an output of the post-doctoral fellowship research activities of the corresponding author, funded by the Carnegie Corporation of New York through the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM). Furthermore, this paper is a contribution to the 19th RUFORUM Annual General Meeting and Scientific Conference held in 28th October -02 November 2023 in Yaoundé, Cameroon.

References

- Ahmed, R.R., Vveinhardt, J., Streimikiene, D. and Pilinkienė, V. 2019. Application of the theory of planned behaviour model for examining customers' intentions towards Islamic hire purchase financing. *Engineering Economics* 30 (2):236-245.
- Arli, D., Tan, L.P., Tjiptono, F. and Yang, L. 2018. Exploring consumers' purchase intention towards green products in an emerging market: The role of consumers' perceived readiness. *International Journal of Consumer Studies* 42 (4):389-401.
- Borhan, M.N., Ibrahim, A.N.H. and Miskeen, M.A.A. 2019. Extending the theory of planned behaviour to predict the intention to take the new high-speed rail for intercity travel in Libya: Assessment of the influence of novelty seeking, trust and external influence. *Transportation Research Part A: Policy and Practice* 130:373-384.
- Dalila, D., Latif, H., Jaafar, N., Aziz, I. and Afthanorhan, A. 2020. The mediating effect of personal values on the relationships between attitudes, subjective norms, perceived behavioral control and intention to use. *Management Science Letters* 10 (1):153-162.
- Daxini, A., Ryan, M. O'Donoghue, C. and Barnes, A. P. 2019. Understanding farmers' intentions to follow a nutrient management plan using the theory of planned behaviour. *Land Use Policy* 85: 428-437.
- Ejigu, S.N. and Filatie, Y.S. 2020. Determinants of investment intention in micro and small enterprises among business college students in East Gojjam Zone. *Research Journal of Finance and Accounting* 11 (3):12-22.
- Gatimu, E.M., Muturi, W. and Oluoch, O. 2018. Effect of Non-Performing Loan Management Practices on Loan Recovery Performance of Deposit Taking Savings and Credit Cooperatives in Kenya. *Journal Of Humanities And Social Science* 23:1-27.
- Jaffe, J., Ketilson, L.H., Mugisha, J., Obaa, B.B. Namwanje, D. and Nimusiima, M 2019. Co-operatives, Agricultural Livelihoods, Gender, and Differentiation in Rural Uganda. *Review of International Co-operation* 02-125
- Kyere-Duodu, K. and Dankwaah-Yamoah, D. 2012. Adoption of internet banking among Ghanaian consumers: A study using decomposed theory of planned behaviour. Master's thesis. Luleå University of Technology .1-83 pp.
- Schlüter, M., Baeza, A., Dressler, G., Frank, K., Groeneveld, J. Jager, W. and Schwarz, N. 2017. A framework for mapping and comparing behavioral theories in models of social-ecological systems. *Ecological Economics* 131:21-35.
- Sun, L., Zhou, X. and Sun, Z. 2019. Improving cycling behaviors of dockless bike-sharing users based on an extended theory of planned behavior and credit-based supervision policies in China. *Frontiers in Psychology* 10: 1-13.
- Uzun, A.M. and Kilis, S. 2020. Investigating antecedents of plagiarism using extended theory of planned behavior. *Computers and Education* 144: 103700.
- Yu, Y., Yi, W., Feng, Y. and Liu, J. 2018. Understanding the intention to use commercial bike-sharing systems: an integration of TAM and TPB. In; Proceedings of the 51st Hawaii International Conference on System Sciences.