

*An Empirical Test of Dimensions That Influence Community Members' Engagement  
With a University in Uganda*

Nanyanzi Alice Sheila, Vrije Universiteit Brussel, Belgium  
Chang Zhu, Vrije Universiteit Brussel, Belgium  
Mugenyi Justice Kintu, Mountains of the Moon University, Uganda  
Kabazira Dinah, Mountains of the Moon University, Uganda  
Leo Van Audenhove, Vrije Universiteit Brussel, Belgium

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**Abstract**

There is sparse empirically supporting information on explanatory dimensions influencing community members' participation in university-community engagement. An insight into these dimensions could provide an invaluable starting point for designing suitable community development interventions. This study investigates the dimension that influences Rwenzori local community members' engagement with Mountains of the Moon university in Uganda. Community members' engagement participation was examined with three dimensions: personal factors: (tribe, gender, age, beliefs, previous engagement experience), process factors (level of involvement, engagement focus, engagement approach), and community-level factors (nature of the economic activity, community trust, access to resources). The survey was administered to (n = 100) community members engaged with Mountains of the Moon university. These were selected through simple random and purposive sampling. A Partial Least Squares- structural equation modelling analysis technique was used to test the research model using Smart PLS (v3) software. The study findings significantly supported the paths from process factors and community-level elements to community members' engagement participation. The findings, however, showed that personal factors have no significant direct effect on community members' engagement participation. Therefore, the authors recommend that universities, organisations, and policymakers pay more attention to the process factors and the community-level elements to enhance participation. Future research should investigate the variables studied with a broader sample and/or in a different context to generalise the results.

Keywords: Engagement Participation, University-Community Engagement, Rural Community Members

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## 1. Introduction

At the centre of the university community engagement (CE) mission is the collaboration between the university and its local communities. However, elements inspire community members to participate in university community involvement activities are rarely investigated. This study assesses elements that predict local community participation in university CE activities. Gaining insights into these elements has multiple benefits to the university compelled to perform community engagement.

First, the university becomes aware of which components may aid in developing more profound and meaningful relationships with their communities. This enables tailoring their engagement activities to better correspond with community needs and establish productive collaboration (Clifford and Petrescu, 2012). Perhaps more crucial for the university, understanding these elements enables them to create CE initiatives that are inclusive of varied viewpoints and needs. According to (Mirri et al., 2018; Trencher et al., 2015), understanding elements that stimulate active community participation is crucial to foster fruitful collaborations. For instance, it guarantees contextualisation of the users' requirements and improved services and relationships between the institutions and their stakeholders (Foroudi et al., 2019; Mirri et al., 2018; Zavrtnik et al., 2018).

Second, understanding the elements that support community members' participation is vital for a broader comprehension of the relevance of university CE. Scholars often emphasise the active participation of community members (Khodyakov et al., 2013). Participation is "a process in which individuals take part in decision-making in the institutions, programs, and environments that affect them" (Talò, 2018). Thus, universities ought to encourage diverse expertise and perspectives from the community to achieve common goals. Community partners are seen as essential wellsprings of information and ought to participate in the designing, execution, and dissemination of any investigation or development initiatives that influence them (MacDonald, 2012; Mirri et al., 2018). Therefore, universities often create room for active community participation in university engagement activities.

For example, in the effort to advance the CE Mountains of the Moon university in Uganda considers community interaction to be an essential component of its purpose. Recognising that a university's duty extends beyond academics, the university aims to use its resources and skills promote CE. For instance, the university prioritized CE initiatives with local farmers on research projects addressing agricultural challenges and enhancing best agricultural practices. Engaging with farmers is envisaged as an opportunity for the university to leverage this expertise and allowing communities to participate in improving their well-being. Other CE endeavours were organised by education faculty members and these involved training programs for local primary teachers to improve their teaching methods, subject knowledge, and classroom management skills. The business faculty also offered entrepreneurship training programs to community members and aspiring community entrepreneurs. However, Often, institutional efforts to advance CE initiatives have not reached their full potential. One of the key challenges is that the university lacks a comprehensive catalogue dimension that could influence community members' engagement participation.

The present research takes the initiative to assess the dimensions influencing the community to participate in university CE initiatives. Pinning down these factors underscores critical issues that should be addressed when designing CE initiatives to encourage active participation of the targeted population (Caffaro et al., 2020). Moreover, institutions could

benefit from a more defined understanding of what prompts individuals to participate in different forms of community activities. Thus, the current research findings are valuable in guiding universities and other organisations in developing effective CE strategies to encourage engagement participation.

## **1.1 Hypothesis Development**

### **The University Community Engagement Activities**

Universities frequently engage with their communities through various initiatives designed to enhance collaboration, information sharing, and mutual benefits. For instance, in terms of teaching, universities employ community-project initiatives in the curriculum, offering reciprocal learning opportunities for all partners (Suarez-Balcazar et al., 2013; Vargiu, 2014) (Brown et al., 2016). Students can collaborate with communities to gain practical skills and benefit the communities (Alice et al., 2021; Garber et al., 2010). Besides, universities implement research that recognises the community as a knowledge-rich partner. In contrast, the university's research capabilities become more accessible as a resource to respond to community needs or aspirations (Rojas et al., 2012). Community partners become involved in identifying their needs and participating in co-creating solutions (Frank and Sieh, 2016). Participating actively in these engagement activities is critical to obtaining successful university CE outcomes. To achieve mutual benefits, the university and community members should actively be involved in the engagement ventures. Therefore, drawing insights from the literature, we identified elements that could influence community members' engagement participation.

### **Relationship Between Personal Factors and Community Members' Engagement Participation**

Researchers have systematically related different personal factors to community engagement participation (Chang and Chuang, 2011). According to (Wade and Demb, 2009), personal elements such as race, gender, personal values, motivation, epistemology, and previous experience could affect engagement participation. Personal factors in our study represent tribe, gender, age, beliefs, and previous engagement experience. Regarding tribe, people's sense of belonging to a specific tribe or group can substantially influence their involvement in engagement activities (Kamal et al., 2020). A strong sense of community may inspire greater interest and commitment to participate in university CE activities.

Furthermore, gender may influence active engagement in university CE activities due to social and cultural norms (Naud et al., 2019). Certain activities may have traditionally been identified with various genders, resulting in varying degrees of interest and engagement. Gender norms, expectations, and views of gender roles in culture can all influence community members' motivation to participate in specific university CE activities.

Another personal element is that age influences engagement involvement (Demb and Wade, 2012; Naud et al., 2019). Younger people may have different tastes and interests than older people, which might influence their involvement choices. Besides, life stage, responsibilities, and available time can all impact the amount of engagement among local community individuals.

Personal values also have a significant impact on engagement participation. Individuals are more disposed to engage in activities consistent with their beliefs and ideas (Kamal et al., 2020). They are more likely to join actively if an engagement opportunity corresponds with their beliefs or promotes a cause they expect (Brunton et al., 2017; Quillinan et al., 2018).

Individuals' propensity to participate in future events is influenced by previous involvement experiences (De Weger et al., 2018; Xu, 2007). According to (Dien et al. and Pratik et al., 2008), the individual's past collaborative experience is likely to impact the success of participation. Thus, positive experiences boost motivation resulting in increased levels of engagement, while negative experiences or a perceived lack of value, on the other hand, may dissuade local individuals from engaging with universities. From this theoretical information, we formulated our first hypothesis as:

H<sub>1</sub>: Personal factors have a positive effect on community engagement participation in university community engagement activities.

### **The Relationship Between the Engagement Process and Community Members' Participation**

In this study, we anticipate that the way engagement activities are organised, structured, and carried out substantially impacts community members' participation. When community members feel engaged, valued, and included in decision-making processes, it generally fosters a sense of ownership, commitment, and motivation to participate actively (Quillinan et al., 2018). According to this research, process factors are perceived as the level of engagement, engagement focus, and engagement approach the university utilises to enhance and generate opportunities for community participation. Regarding the level of engagement, the level to which community members are actively involved in decision-making or implementation processes determines their participation (Kenny and Regan, 2021; Kohler et al., 2011). For instance, when the university offers significant opportunities for community members to contribute their ideas, skills, and expertise, they are more inclined to engage. In contrast, restricted or passive involvement might reduce participation because individuals may believe their efforts are unimportant.

On the other hand, the engagement focus or goal of the engagement may influence community members' participation. According to Dempsey (2010) and Olutokunbo et al., (2018), Community members are more likely to engage and participate actively in university CE activities if the engagement emphasis is closely related to their interests and needs. Similarly, when the university CE emphasises community concerns and aspirations, community members may understand the need for their participation to create change (Khodyakov et al., 2013).

The engagement approach includes the university's tactics, methods, and channels to encourage community participation. For instance, (Frank and Sieh, 2016) and (Mbah and Mbah, 2018) demonstrated that engagement approaches that involve face-to-face encounters, such as co-creation, enhance active participation of the community in creating, designing, building, and implementing innovations. Such an approach not only supports active community members involvement in university CE initiatives but also enables ownership of the engagement intervention and increases the possibility of staying engaged throughout and after the process (Kearney, et a., 2013). Thus, we stated our second hypothesis as:

H<sub>2</sub>: Process elements have a positive effect on community members' engagement participation.

### **The Relationship Between Community-Level Elements and Community Engagement Participation**

In the current study, community-level elements are perceived as components or conditions in the community that influence community members' participation in university CE activities. Thus, we operationalise community-level elements to include the nature of the economic activity, community trust and resource access. The type and nature of economic activity in a community can shape engagement participation. For instance, in cases where the university CE activities offer economic benefits or job training to community members, it can encourage encouraging participation. (Clifford and Petrescu, 2012). Suppose the community relies on agriculture and university CE engagement opportunities linked to agricultural issues or sustainable farming methods. In that case, community members are more likely it participates in the university CE activities (Alice et al., 2021). Establishing activities that involve farmers' participation in activities that critically makes them aware of the realities that impede the development of their fish farming enterprises enhances their participation (Bamuturaki, Keneth, Oliver Schmidt, 2018).

Access to information and technical resources influences participation in university engagement activities (Cariani, 2016). For example, community members with minimal resources may confront participation difficulties. Lack of adequate resources, like financial resources, may hinder participation as community members with limited financial means may find it challenging to attend in-person university CE events or training.

Furthermore, the literature shows community trust in the university can drive or hinder community engagement participation (Di Napoli, Dolce, and Arcidiacono, 2019; Smith et al., 2013; Zanbar and Ellison, 2019). Community trust is the community members' assessment of whether the university's CE initiatives meet their expectations (Suarez-Balcazar et al., 2013). Trust provides a sense of security, collaboration, and the idea that their perspective will be acknowledged and considered (Cook and Nation, 2016). Furthermore, the literature emphasises that community participation can only be developed based on mutual trust between people and institutions (Talò, 2018). When the community trusts the institution, community members may be willing to participate in university CE activities (Molinillo et al., 2020). (Lavery et al., 2010) suggest that a better understanding of the community-level factors is to establish engagement participation. Thus, we suggested our third hypothesis:

H<sub>3</sub>: Community-level elements have a positive effect on engagement participation.

## **2. Methodology**

A convenience sample of 100 community members from the Kabarole and Kyenjojo districts in the Rwenzori region of Uganda responded to a survey between September and October 2022. Respondents who have previously participated in Mountains of the Moon university activities were deemed eligible to participate in this survey. The survey was divided into two sections: a) evaluating respondents' socio-demographic factors, as shown in Table 1.

Variable	Classification	Frequency	Percentage
<i>Gender</i>	Male	62	62.0%
	Female	38	38.0%
<i>Age groups</i>	21-30	20	20.0%
	31-40	36	36.0%
	41-50	27	27.0%
	51-60	13	13.0%
	61+	4	4.0%
<i>Education level completed</i>	Primary	12	52.0%
	Secondary	25	20.0%
	Diploma/ Polytechnique	28	10.0%
	Bachelor's degree	30	5.0%
	Others	5	13.0%

Table 1: Demographic characteristics of respondents

The second part of the survey examined constructs that predict community members' participation in university CE activities. Items that measured personal factors included (tribe, gender, age, beliefs, and previous engagement experience), revised from (Wade and Demb, 2009); process factors included (level of involvement, engagement focus, and engagement approach) developed from Kohler et al. 2011; (Khodyakov et al., 2013). Community-level factors included (nature of the economic activity, community trust, access to resources, and community readiness) were generated from (Bamuturaki et al., 2018; Cariani, 2016; Nanyanzi et al., 2022; Zanbar and Ellison, 2019). The questions in these sections asked respondents to judge how likely they were to agree that the personal, process and community-level elements influence their engagement participation. To obtain responses, the questionnaire featured a five-point Likert scale based on (1) Strongly disagree, (2) Disagree, (3) Neither agree nor disagree, (4) Agree to (5) Strongly agree.

### 3. Data Analysis

The Smart PLS 3 program was used to analyse the gathered information using partial least squares (PLS) based on structural equation modelling. Smart-PLS has the advantage of being employed in a range of research contexts and handling components assessed using single and multi-item measures (Sarstedt et al., 2021).

We examined the measurement model with all components of the proposed model. The model is supported by high loading values from 0.50 and above indicators, according to (Hair et al., 2014). Because of low loading values, we excluded two indicators of the latent variable personal factors: age (0.454) and personal beliefs (0.262), from the subsequent analysis. In addition, we examined the significance levels of the hypothesised associations using the latent variable scores derived from smart PLS. The bootstrapping process was used to assess the t-statistics of all indicators to evaluate if the postulated associations were significant. The observed sample represents the entire population in bootstrapping (Henseler et al., 2009). Therefore, the resampling bootstrapping approach was used with 5000 samples.

## 4. Results

### 4.1: Measurement Model Testing Community Members' Engagement Participation

The criteria (Hair et al., 2012) was used to assess individual item reliability and internal consistency (composite reliability). Table 2 shows the findings of individual item reliability. Items with low factor loading were eliminated from further analysis. Furthermore, we used Cronbach's alpha and composite reliability statistics to assess the constructs' reliability (Fornell and Larcker, 1981). According to the results in Table 1, the model has appropriate reliability since the coefficients of the lowest alpha of the constructs were (0.70), and the coefficient of composite reliability of the constructs was (0.83), meaning that they all met the minimal threshold value of 0.70. Besides, it is critical to examine convergent validity (CV) and discriminant validity (DV) in this kind of analysis. CV was investigated using AVE values. According to the findings, The AVE values varied from 0.654 to 0.775, exceeding the acceptable threshold of 0.50.

Construct	Factor loadings	Cronbach's alpha value	Composite reliability	Average Variance Extracted
<b><i>Community-level factors (CLF)</i></b>		0.819	0.881	0.654
Nature of community economic activities	0.836			
Community trust in the university	0.871			
Community access to the resources	0.874			
Community readiness for engagement	0.628			
<b><i>Personal factors (PEF)</i></b>		0.717	0.873	0.775
Gender	0.835			
Age	0.454			
Personal beliefs	0.262			
Previous experience	0.923			
<b><i>Engagement process factors (EPF)</i></b>		0.805	0.886	0.722
Level of Engagement	0.896			
Engagement Focus	0.764			
Engagement approach	0.882			
<b><i>Community members' engagement participation (CEP)</i></b>		0.784	0.874	0.698
Engaged learning activities	0.824			
Engaged research activities	0.840			
Engaged service activities	0.843			

Table 2: Measurement model results

The results of the discriminant validity are shown in Table 3. Accordingly, The DV is acceptable because the square roots of AVE were all above the relations between each pair of constructions. As a result, we concluded that adequate reliability, CV, and DV were obtained.

	Engagement participation	Community-level factors	Engagement process factors	Personal factors
Engagement participation	0.835			
Community-level factors	0.701	0.809		
Engagement process factors	0.710	0.522	0.850	
Personal factors	0.323	0.362	0.229	0.880

Table 3: Discriminant validity: Fornell Larcker criterion

## 4.2 Testing the Research Hypotheses

According to the results, the hypothesised path Community level factors (CLF) and community engagement participation (CEP) is statistically significant ( $\beta = 0.434$ ,  $t = 5.364$ ,  $p < 0.014$ ) hence accepting  $H_1$ . Also, the model's hypothesised path of engagement process factors (EPF) and CEP is statistically significant ( $\beta = 0.471$ ,  $t = 7.065$ ,  $p < 0.000$ ), thus accepting  $H_2$ . However, the hypothesised relationship between personal factors (PEF) and CEP was not statistically significant ( $\beta = 0.058$ ,  $t = 0.077$ ,  $p < 0.380$ ) hence rejecting  $H_3$ .

Hypothesis	Relationship	Path coefficient	Standard Deviation (STDEV)	t-values	P Values	Decision
$H_1$	CLF -> CEP	0.434	0.081	5.364	0.014**	Supported
$H_2$	EPF -> CEP	0.471	0.067	7.065	0.000**	Supported
$H_3$	PEF -> CEP	0.058	0.077	0.878	0.380	Not supported

Table 4: Results of the hypothesised structural model

## 5. Discussion of the Results

This study investigated the elements influencing community members' participation in university engagement activities. A survey that involved 100 community members was conducted to get a better overview of this phenomenon. According to the study findings, Community level factors have a significant positive effect on community engagement participation. This finding is echoed in studies such as (Holzer et al., 2014; Lavery et al., 2010; Molinillo et al., 2020) who found that characteristics of the community's environment and dynamics influence the level of interest and participation in the university engagement activities. Thus, understanding community variables is crucial for designing strategies that encourage community members to participate in university community engagement initiatives actively.

Secondly, we found that the engagement process has a significant positive effect on community members' engagement participation. The findings suggest that universities must consider engagement process characteristics when developing engagement initiatives. For instance, the university may establish an environment that encourages active and meaningful participation by designing transparent, inclusive, and responsive processes, resulting in more impactful outcomes and a stronger feeling of community ownership of the engagement outcomes.



Finally, our results showed no significant relationship between personal elements and community members' engagement participation. On the contrary, studies such as (Naud et al., 2019) found that personal factors, for instance, gender and age have a positive effect on engagement participation. Thus, findings from our study seem surprising because, to participate in university CE activities, community members must be receptive. However, it might be claimed that when community members interact with universities, a vibrant relationship forms and that personal or individual considerations do not always disturb it.

## **6. Conclusion**

In conclusion, the interplay of community-level, process and personal elements can encourage or discourage community members from actively participating in university community engagement initiatives. Therefore, universities and community organisations should consider these factors holistically to maximise community members' engagement participation. For instance, this can be achieved through developing a culture of active participation by creating a good community atmosphere, designing effective and inclusive engagement mechanisms, and addressing individual motivations for participation.

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**Contact email:** [sheila.nanyanzi@mmu.ac.ug](mailto:sheila.nanyanzi@mmu.ac.ug)