

# Modeling Relationship between Media Literacy Competencies and Use of New Media for Civic Engagement among Youths in New Digital Media Environment

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## Abstract

There are ample theoretical positions arguing that media literacy competence are essential requirement of citizenship in the new digital environment but little research tries to confirm this position through empirical data. This study collected data from youth in both rural and urban areas of Kwara State Nigeria for the purpose of testing the relationship of media literacy competence to the use of new media for civic engagement. The results of the analysis through partial least squares PLS-SEM indicate that there is significant relationship between media literacy competencies and use of new media for civic engagement. The significant path analysis shows that ability to own or have access to gadgets and the possession of media skills have strong relationship with use of new media for civic engagement. Similar results were obtained for the media literacy competence of critical understanding and communication competences of the youths. Therefore, the outcome provides support for the theoretical positions of the relationship between media literacy and civic engagement. The implication of the findings in the context of Nigeria and other developing countries is that effective use of new media that maximise opportunities and reduced risk depends on media literacy competence.

**Keywords:** media literacy, new media, civic engagement, digital media

## 1.1 Introduction

Media literacy in being relentlessly positioned as vital requirement of citizenship in the new digital media environment. Media literacy scholars advanced the notion that resurgence in civic engagement particularly among the youths is intrinsically linked to possession of media literacy skills. Relationship of digital media platform and media literacy skills is the model through which the youths will be empowered to perform civic activities that define the responsible citizenship (Wilson & Johnson 2014; Martens and Hobbs, 2015; Hobbs 2011). This theoretical postulation are somewhat confirmed in the number of civic action by citizens involving the use of new media. Example includes the tremendous success of the use of the new media for electioneering purpose across the world, the uprising in the Middle East and North Africa. In contrast to the positive potentials of new media, some scholars are skeptical of the trend and pointed out that the youth are actually engaged in the new media activities largely for farcical purposes and hence not enough to guarantee the use of new media for civic engagement (Van Hamel, 2011) However, some scholars have empirically demonstrated that in the new media environment, a new digital media divide is emerging that is attributable to media literacy competence of the citizens. In Nigeria, there is ample evidence in the new digital media environment that illustrates the use of new media for civic participation in political and social advocacy as well as emerging issues of lack of media literacy competence among youths.

## 1.2 Statement of problem

Martens (2010) notes that media literacy scholars display the tendencies to relate their research efforts on media literacy to applied research by connecting media literacy with issue of active citizenship, civic engagement or issues of public health. Aside conceptual and theoretical postulations, there is little research that empirically measure how the media literacy dimensions relate to use of new media for civic engagement. Scholars of the media literacy assert further that effective use of new media is shaped by the level of media literacy of the users. According Celto and Tornero (2009), two dimensions of media literacy of individual competences and environmental/contextual factors affect access and use of the media generally and new media in particular. Despite the considerable conceptual postulations and empirical studies (Buckingham, 2000; Kahne, Lee, & Feezell, 2012, Livingstone, 2010; Jenkins, et al, 2006) on new media, civic engagement and media literacy, there exists gap in knowledge on the role of the individual dimensions of media literacy in relation to online civic engagement. In other words how do the factors of access and usage skills, critical understanding and communication abilities influences or relates to use of new media among the youths who are regarded as digital youths. Each of these dimensions of media literacy has different influence on exposure to and use of digital media for different purposes including civic engagement. It is pertinent to examine how each of these dimensions influences the use of new media among youths.

### 1.3 Research Questions

- What is the relationship between media literacy competencies of access and usage skills and use of new media for civic engagement among the youths?
- What is the relationship between media literacy competence of critical understanding practices and use of new media for civic engagement among the youths?
- What is the relationship between media literacy competence of communication abilities and use of new media for civic engagement among the youths?

The objective of this study is to determine the relationship of media literacy competence on use of new media for civic engagement based on the media literacy dimensions:- access/usage competence, critical understanding competence and communication competence.

### 1.4 Literature Review

#### **Media literacy, Civic engagement and New Digital media environment.**

Jenkins, Clinton, Purushotma, Robinson and Weigel, (2006), make important contribution to the understanding of the contemporary new media environment. According to them the new media environment has brought enhanced participatory culture for citizens to be part of the socio-political process. This participatory culture is a situation where there is a relatively low barrier to artistic expression and civic engagement. Participants are empowered by new media technology to create and share messages with others within immediate and far flung places. It is also an environment where participants enjoy a kind of informal mentorship whereby what is known by the most experienced gets passed along to newbies and novices. This gives rise to feelings among members that their contributions matter and assume a degree of social connection with each other, at least, to the degree to which they care what other people think about what they have created. Furthermore, the feature of this participatory culture, according to Jenkins et al. (2006) includes some form of affiliation through formal and informal membership in online communities. Their activities revolve around various forms of social media; creative self-expressions and collaborative problem solving through working together to complete task and gain new knowledge as well as circulation of messages that shape the flow of new media of podcasting and blogging.

However, van Hamel (2011) examined the transformation being brought into the contemporary world by the new digital media and concluded that “taking active role in civic activity nowadays is highly likely require skills like coordinating efforts in networked environment, producing multimedia text for an invisible audience and exerting ‘virtual’ but very real pressures on leaders” (van Hamel, 2011 p.16).

Similarly, Hobbs (2010) argues that

When people have digital and media literacy competencies, they recognize personal, corporate and political agendas and are empowered to speak out on behalf of the missing voices and omitted perspectives in our communities. By identifying and attempting to solve problems, people use their powerful voices and their rights under law to improve the world around them (Hobbs 2010, p. 17)

Furthermore, Kahne, Lee and Feezell (2010) posits that online media expands youth civic activities through self created content and engagement in dialogue. Also when youth participate in online, there is likelihood of increasing their civic acts including raising money for charity, volunteering, joining political discussion and voting.

However, online civic engagement does not come with all positive potentials. It is observed that online environment encourages participant to enter into what is referred to as ‘echo chamber’; a situation created when individual chose what they read, with whom they interact with and interact with those who share their ideological viewpoints (Kahne, Lee and Feezell, 2010). In other word, a situation that ought to encourage inter group dialogue may turn into dysfunctional activities where people talk to themselves or their group rather than interact with other towards peaceful coexistence. This indeed will be unfavorable in a heterogeneous society like Nigeria, which is where data for this study was collected.

Another issue of concern as highlighted by Haggittai (2010) is the emergence of “second level” digital divide attributed to socioeconomic and geographical location of the youths. This observation resonates with the Nigerian situation as many citizens are still excluded from participation in the new media culture, in spite of the continued penetration and popularity of the new media. The reason for this exclusion may be attributable to inability to access the technology or inadequate technical skills to use the new media.

A contemporary approach for dealing with new media saturated environment is media literacy competence which is conceived as “a critical thinking skill that enables audiences to develop independent judgments about media content” (Silverblatt 2001, p.2), and “as one of the key pre-requisite of active and full citizenship in order to prevent and diminish risk of exclusion from community life” (Ding, 2011, p.1) The interconnection of the new digital media with the media literacy lies in their potentials to empower the youths for democratic participation in civil and political process. Media literacy is connected to democracy and active citizenship in the sense that such skills help to bolster the citizens’ ability to acquire informed opinion and also to

express personal perspectives to socio-political process. Media literate citizens can better exercise civic and political rights of expressing their opinion as individual and as collective or group pursuing similar objectives. (Livingstone, Couvering & Thumim (2006). This, in effect is the kernel of the concept of online civic engagement being touted as the new outlet for citizens empowerment..

#### **1.4 Method**

The data for the study was collected through survey with questionnaire as the instrument. The sample was drawn from both rural and urban area in Kwara State Nigeria. A total of 600 questionnaires were distributed among youth yielding 503 valid responses after treating them and wielding them of missing data and outliers. This valid response represents 83% of the distributed questionnaires which is more than the recommended 30% by scholars (Hair, 2012; Sekaran, 2003) when carrying out survey.

A breakdown of the profile of respondents revealed that among them, 22 respondents representing (4.3%) are PhD holders, 36 (7.1%) have Master Degree, with 10 (2.0%) and 66 (13.0%) respondents respectively belonging to the primary and secondary school categories. The majority of the respondents 372 representing (73.5%) are in the category of Bachelor degree holders. In terms of gender, the result indicates that there is relatively even distribution of respondents with 263 representing 52% male and 243 (48%) female. Analysis of income background of the respondents shows that 35% (n=175) are middle income earner; while 20% (n=102) and 11% (n=55) belong to lower and upper income category respectively with 34% (n=174) unemployed. Based on geographical location where the youths are residing as at the time of collecting data for this study, 217 representing 43.1% are residing in the rural areas, as against 286 representing 56.9% who are in the urban centre.

#### **1.5 Measures**

##### **1.5.1 Media Literacy**

The measures for the media literacy which comprises of three variables of access and usage skills; critical understanding and communication abilities were adapted from Celot and Tonnero (2012) media literacy assessment instrument. The items contain a 5 Point Likert Scale (1 to 5) with options crafted to suit the nature of the variable. The measurement items for access and usage skills have 25 items, critical understanding has 18 items, and communication abilities have 12 items.

##### **1.5.2 Use of new media for civic engagement**

For the purpose of measuring use of new media for civic engagement, the items were adapted also from Celot and Tonnero (2012) and the Literat (2012). It has 20 items Likert scale covering four areas of civic engagement viz: political participation, community participation, social advocacy and humanitarian services. Respondents were asked to indicate how often they use the new media for various civic engagements in the online environment.

#### **1.6 Analysis and Results**

Although Partial least squares PLS is built on non parametric evaluation criteria, Hair et al 2010 had counseled that it is still desirable to assess the data meant for PLS model assessment for non violation of the assumption of linearity, normality and multicollinearity. Hence, subsequent to the main analysis, tests were carried out with regard to linearity, normality and multicollinearity assumptions to ensure the data met those requirements. Consequently, the analysis proceeded with the use of smart PLS 2.0 software for the measurement and structural model assessment. The basis for adopting the PLS as analysis tool for this study was informed by a number of reasons that are based on PLS characteristics. First, PLS works very well in assessing, simultaneously, the relationship between latent constructs in a model and between latent constructs and their corresponding indicators. PLS does not insist, as does other method, on the data meeting strict distribution assumption and normality requirement. It also makes fewer demands regarding samples size. In addition, PLS is primarily suitable for prediction oriented study as is being proposed in this study. Although, the adoption of PLS is still relatively scarce in communication studies, its usefulness and preference for multivariate analysis has been established in social sciences and management studies.

#### **1.7 Measurement model result**

The basic function of measurement model is to assess the psychometric properties of the measurement scale used for the study. The required tests are individual item reliability, internal consistency reliability, convergent validity and discriminant validity.

The individual reliability test was determined by examining the outer loading of the each of the constructs. The rule of thumb (Hair, et al, 2014, Vinzi et al 2010) is to look for items in the outer loading that are .50 and above. In line with this guide, 30 items/indicators met the criterion. All the items that were retained have loadings between .771 and .861. Table 1 contains the details

Table 1 Items, standard loadings, average variance extracted, composite reliability and cronbach alpha

Construct	Items	Standardized Loadings	AVE	Composite Reliability	Cronbach's Alpha
Access and Usage Skills	AU1.4	.664	.516	.841	.764
	AU1.5	.725			
	AU3.3	.623			
	AU3.5	.807			
	AU3.6	.759			
Critical Understanding	CU1.3	.636	.522	.765	.550
	CU1.5	.766			
	CU1.6	.759			
Communication Ability	CA10	.762	.500	.833	.749
	CA11	.730			
	CA12	.717			
	CA7	.607			
	CA9	.712			
Civic Engagement	CE10	.697	.507	.949	.942
	CE11	.703			
	CE12	.748			
	CE13	.722			
	CE14	.747			
	CE15	.736			
	CE16	.691			
	CE17	.795			
	CE18	.742			
	CE19	.789			
	CE2	.622			
	CE20	.728			
	CE3	.626			
	CE4	.568			
	CE6	.681			
	CE7	.757			
	CE8	.735			
	CE9	.694			
	Media Education	ME2			
ME3		.710			
ME5		.737			
ME6		.755			
ME7		.742			
	ME8	.721			

### 1.7.1 Internal Consistency Reliability

Cronbach alpha has been the traditional assessment procedure for internal consistency reliability. But due to observations of Chin, (1998) that Cronbach alpha, in the context of PLS, tends to underestimate internal consistency reliability of latent variable (LV) researchers have shifted emphasis from cronbach's alpha to composite reliability coefficient. The cronbach's alpha works on the assumptions that all items with one construct depict the same range and meaning or that they contribute equally. This tends to obscure individual

strength and weakness of the items and thereby either underestimate or overestimate the scale reliability. Following this observation, researchers, particularly those using the PLS approach; have been reporting the composite reliability. This composite reliability recognizes the individual loadings thereby highlighting the contribution of each item. However, both the cronbach's alpha and composite reliability use the threshold of .70 for exploratory research making the composite reliability coefficient to be interpreted the same way as the cronbach's alpha. Table 1 indicates the result of the internal consistency reliability for the main constructs of the models. The composite reliability results exceeded the threshold of 0.70 for the constructs in this study. The breakdown is as follows. Access and usage skills has 0.84; critical understanding 0.77; communication abilities has 0.83; civic engagement using the new media 0.95; media education 0.86. All of them exceeded the recommended 0.70 threshold for exploratory study using the PLS approach (Hair, et al, 2014; Pallant, 2011)

Table.2 Average variance extracted, composite reliability and Cronbach alpha for the study constructs

Constructs	AVE	Composite Reliability	Cronbach Alpha
Access and Usage skills	0.52	0.84	0.77
Critical Understanding	0.52	0.77	0.55
Communication Abilities	0.50	0.83	0.75
Use of New Media for Civic Engagement	0.51	0.95	0.94
Media Education	0.51.	0.86	0.81

### 1.7.2 Validity Test

Validity measurement of the model is aimed at decreasing errors that are attributable to measurement items. Instrument designed for a study is expected to measure what it is designed to measure. To evaluate this criterion, the instrument is subjected to convergent and discriminant validity measurements through the assessment of average variance extracted, factor analysis and latent variable correlation.

### 1.7.3 Convergent Validity

Convergent validity measures the extent to which the items to a latent construct truly reflected the latent construct of the model. Convergent validity confirms that a latent variable is able to explain more than half of the variance of its indicators on the average (Hair et al 2010). To examine the convergent validity, there is need to look at the average variance extracted of the measurement model which should be above 0.50 indicating that the latent construct correlate with the items used to measure it (Fornell & Lacker, 1981, Chin, 1988). Table 3 indicates that the Average Variance Extracted for respective constructs is above 0.50 thresholds thus confirming that the items have strong relationship with the construct they are measuring. Table 1 also shows that average variance extracted range between 0.55 and 0.65 which exceed the stipulated minimum of 0.50 (Fornell &Lacker 1981) which indicates that there is convergent validity between the latent constructs and their indicators used in this study.

### 1.7.4 Discriminant Validity

Discriminant validity is to determine that each of the latent construct measurement indicators actually represent one latent construct and do not cross load with other latent construct. To test the discriminant validity, Fornell and Lacker (1981) recommend the use of average variance extracted where the square root of average variance extracted of any construct being measured has to be greater than the latent variable correlations of all other constructs. Table 4, shows that the square roots of Average Variance Extracted for each of the construct is higher when compared to the latent variable correlations of all other constructs. Furthermore discriminant validity for the measurement indicators can be confirmed by examining the cross loading of the indicators. As shown in table 5, indicator loading, when compared with other reflective indicators loading, is greater than the corresponding cross loading of other indicators. This implies that there is discriminant validity among the constructs as well as the measurement indicators.

Table 3 Latent Variable Correlations and Square roots of Average Variance Extracted (AVE)

Constructs	AUS	CENG	COMAB	CRUND	MEDU
<b>AUS</b>	<b>0.804</b>				
<b>CENG</b>	0.311	<b>0.754</b>			
<b>COMAB</b>	0.297	0.607	<b>0.746</b>		
<b>CRUND</b>	0.171	0.162	0.180	<b>0.746</b>	
<b>MEDU</b>	0.077	0.313	0.247	0.125	<b>0.740</b>

**Note: Square roots of AVE are the values in bold**

**Key: AUS= Access &Usage, CENG= Use of new media for civic engagement; COMB=Communication Abilities; CRUND=Critical understanding;MEDU= Media education**

Table 4 Factor Analysis/cross loadings

Items	AUS	COMA	CENG	CRUND	MEDU
AU1.5	<b>.776</b>	.218	.246	.139	.049
AU1.5	<b>.776</b>	.218	.246	.139	.049
AU3.5	<b>.861</b>	.287	.284	.126	.066
AU3.5	<b>.861</b>	.287	.284	.126	.066
AU3.6	<b>.771</b>	.207	.218	.149	.069
AU3.6	<b>.771</b>	.207	.218	.149	.069
CA10	.188	<b>.788</b>	.459	.195	.190
CA10	.188	<b>.788</b>	.459	.195	.190
CA11	.221	<b>.746</b>	.441	.055	.234
CA11	.221	<b>.746</b>	.441	.055	.234
CA12	.258	<b>.734</b>	.461	.134	.122
CA12	.258	<b>.734</b>	.461	.134	.122
CA9	.223	<b>.715</b>	.452	.145	.196
CA9	.223	<b>.715</b>	.452	.145	.196
CE10	.249	.396	<b>.730</b>	.169	.202
CE12	.236	.493	<b>.745</b>	.051	.213
CE13	.202	.465	<b>.734</b>	.043	.254
CE14	.244	.417	<b>.777</b>	.173	.260
CE15	.231	.439	<b>.760</b>	.137	.206
CE17	.256	.476	<b>.778</b>	.107	.232
CE18	.211	.412	<b>.755</b>	.140	.214
CE19	.232	.490	<b>.809</b>	.148	.289
CE20	.230	.476	<b>.754</b>	.187	.265
CE7	.281	.512	<b>.731</b>	.109	.194
CE8	.205	.483	<b>.735</b>	.074	.237
CE9	.240	.437	<b>.741</b>	.113	.261
CU3.2	.148	.205	.174	<b>.705</b>	.117
CU3.2	.148	.205	.174	<b>.705</b>	.117
CU3.4	.155	.125	.124	<b>.727</b>	.125
CU3.4	.155	.125	.124	<b>.727</b>	.125
CU3.5	.105	.086	.038	<b>.720</b>	.070
CU3.5	.105	.086	.038	<b>.720</b>	.070
CU3.6	.118	.133	.114	<b>.787</b>	.054
CU3.6	.118	.133	.114	<b>.787</b>	.054
CU3.7	.107	.112	.145	<b>.785</b>	.099
CU3.7	.107	.112	.145	<b>.785</b>	.099
ME3	.039	.196	.204	.155	<b>.707</b>
ME5	.092	.186	.215	.124	<b>.735</b>
ME6	-.004	.131	.170	.144	<b>.765</b>
ME7	-.016	.158	.201	.143	<b>.753</b>
ME8	.123	.216	.314	-.029	<b>.741</b>

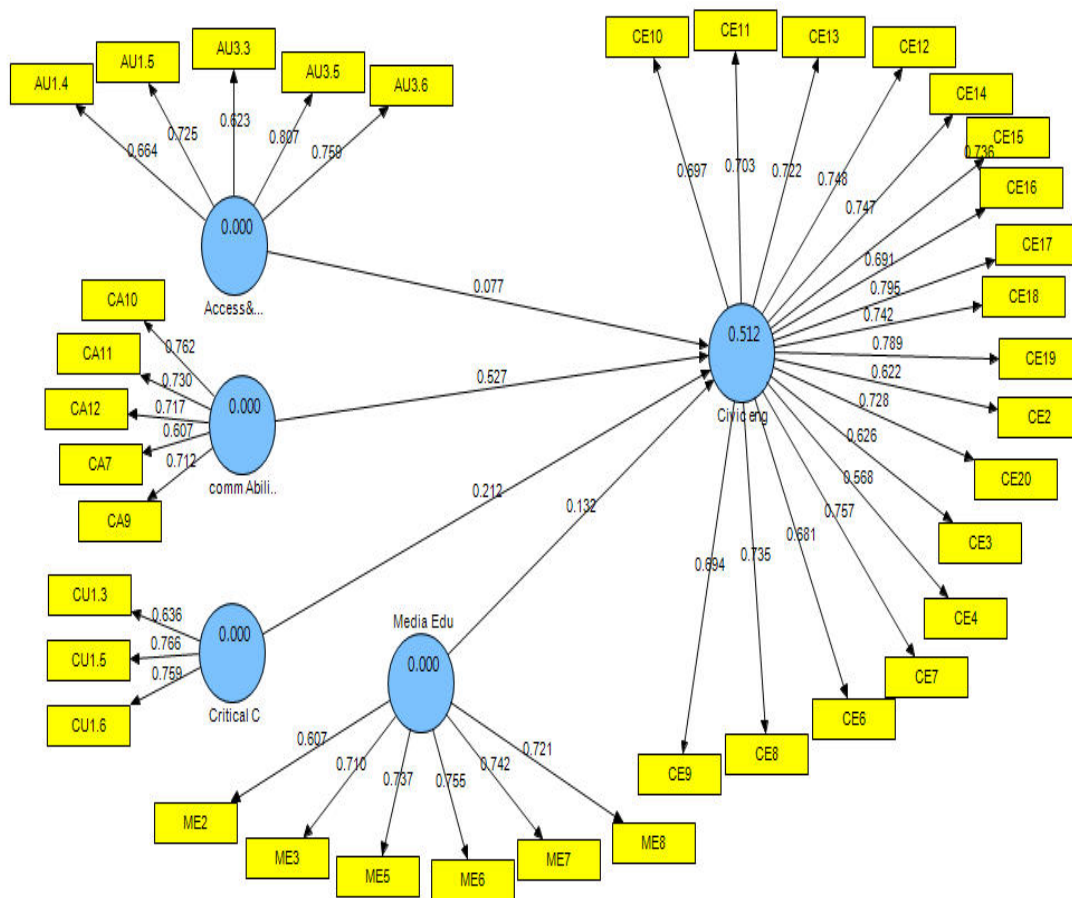


Figure 1. Measurement model for the study showing the path coefficient

### Validation of the Structural model

#### Assessment of Significance of the Structural Model

Following the recommendations of Hair et al., (2014); and Henseler et al.,(2009), the present study apply the bootstrapping procedure in PLS with bootstrap of 5000 samples to treat 503 cases for the purposes of assessing the significance of the path coefficient. Being a non parametric data analysis, PLS-SEM employs bootstrapping procedure for the purpose of testing the significance of path coefficient which reflects the strength of relationship between independent variable and dependent variables and other hypothesized relationship (Chin, (1998),

The application of bootstrapping in PLS is necessary according to Hair et al (2014) because PLS SEM does not assume the data being analysed are normally distributed. Path coefficient is interpreted as standardized beta coefficient similar to ordinary least squares regressions. The foregoing serves as guide for assessing the structural path coefficient of the relationship between the media literacy competence and use of new media for civic engagement.

Figure 2 is the graphical output of the test of the hypothesized predictive relationship between media literacy competence and use of new media for civic engagement. As a part of the model, media education is part of the larger version of the study and is used as moderator variable, though not reported here. The causal relationship of between the individual dimensions of the media literacy competence and the dependent variable of use of new media for civic engagement was tested.

Hypothesis 1 of this study states that the relationship between Access and Usage skills and use of new media for civic engagement will be significant. As in indicated in the result, this hypothesis was confirmed as access and usage is significantly related to use of new media for civic engagement ( $\beta = 0.077$ ;  $t = 2.185$ ;  $p = 0.015$ ). With these values, it can be confirmed that being in socio-economic position to own or access necessary gadgets and possessing requisite skills to use the new media are essential to effective use of new media for civic engagement.

Media literacy theorist prioritises the ability of media users to critically examine the messages and

information the users are exposed to especially in new digital media environment. Therefore, Hypothesis 2 predicts that critical understanding will be significantly related to use of new media for civic engagement. The result supports the hypothesis as revealed in this result ( $\beta = 0.212$ ;  $t = 5.888$ ;  $p = 0.000$ ). The result confirms the theoretical position that effective use of new media for civic engagement will include the critical ability among the users

Hypothesis 3 asserts that communication ability is significantly related to civic engagement in the online environment. With the result of the measurement ( $\beta = 0.527$ ;  $t = 14.857$ ;  $p = 0.000$ ) for communication abilities including knowing and having relationship skills, skill for self created contents are very significant media literacy skills for effective civic engagement through the new media. Table 6 contains the summary of the results in terms of the path coefficient, t-value and the p value while figure 2 provides graphical illustration of the significant path measurement.

Table 6  
 Hypothesis Testing

Hypothesis	Relationships	Beta value	Std. error	t value	p value	Decision
H <sub>1</sub>	Access&Usage -> Civic Eng	.077	.035	2.185	.015	Supported
H <sub>2</sub>	Critical C -> Civic Eng	.212	.036	5.888	.000	Supported
H <sub>3</sub>	Comm Abilities -> Civic Eng	.527	.035	14.857	.000	Supported

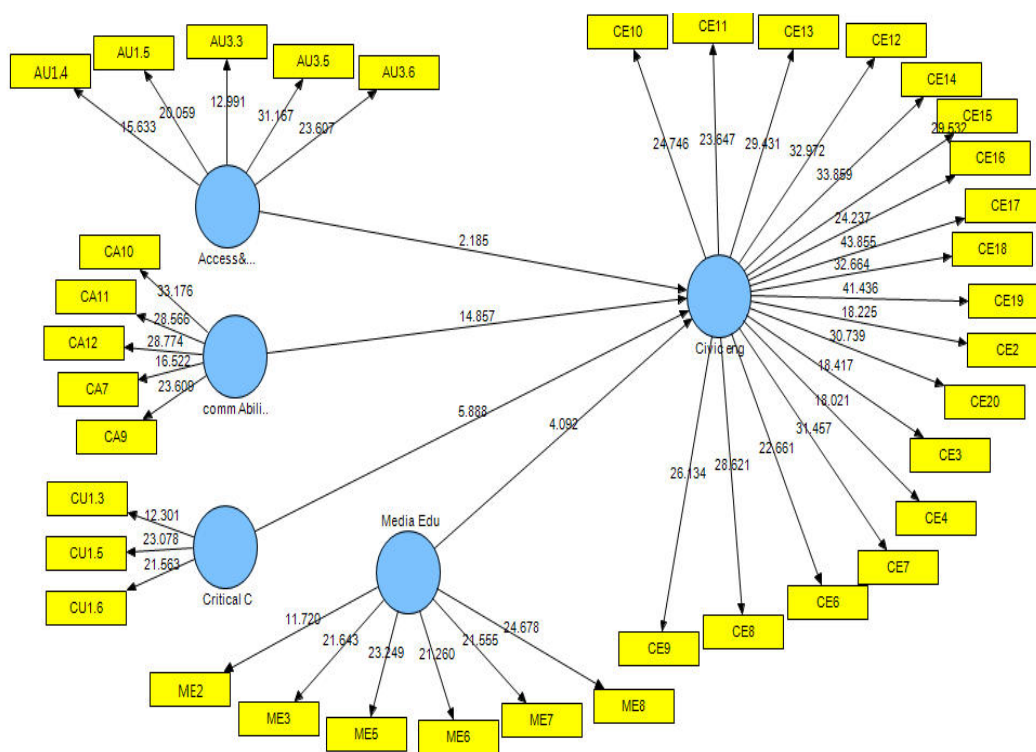


Figure 2 Structural models for the study showing the significance path

**Discussion**

This study investigated the relationship between media literacy competencies and use of new media for civic engagement among youths in Kwara State Nigeria. In recent times there is sustained interest of scholarship on the relevance and potentials of media literacy competency to rekindle and animate the dwindling interest of youths in civic activities. (Kahne, Lee & Feezeell, 2012). The result of the study indicates that the three dimensions of media literacy competence have significant relationship with the use of new media for civic engagement. Individually the statistical significance of access and usage skills to use of new media for civic engagement confirmed the theoretical assumptions that both ability to own and ability to use are basic as



requirement for other levels of media literacy competence (Vanwynsberghe, Paulussen&Verdegem;2012; Livingstone, 2004). The result of the critical media literacy as the central focus of theoretical postulation also indicates significant relevance to use of new media for civic engagement. In the same vein the analysis revealed significant result for communication abilities which include skills to create and disseminate one's message and engage in dialogue with others. As noted by Hobbs and Martens (2015), such significant relationship underlines the relevance of media literacy competence as important skills that empowers the youths to project themselves for recognition in the new digital media environment.

### Conclusions

The findings of the study empirically demonstrate that media literacy have significant strong relationship with use of new media for youths participation in public discourse and carrying out citizen responsibilities encapsulated in the concept of civic engagement. Secondly, in the context of Nigeria, there are issues of civic engagement through the platform of new media relating media literacy but little is known about the role media literacy play in the emerging scenario. However, a number of issues arise out of the youth's participation online. These issues include many youth especially female that are falling victims of online stalkers. Also the online space is filled with spreading of rumour, ethnic profiling and defamation of character in the course of youths participation in online civic engagement activities. The result further points to the practical values of media literacy which implies that the government needs to enact policies on media literacy. Presently in Nigeria there is no formal involvement of government in promotion of media literacy. The empirical result from this study is expected to inform government to change their attitude to media literacy competence because of its value to guide youths on how they use new media in a way that make them to avoid risks inherent in new media environment while maximizing opportunities.

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