Development And Validation Of Journalists’ Civic Engagement Scale

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Abstract

Civic engagement is among some most demanded skills of the decade for all professionals and there are some measures for assessing civic engagement among individuals. However, a valid measure for assessing journalist’s civic engagement is still missing in the literature. Therefore, the effort has been made to develop journalist’s civic engagement scale. Owing to the purpose, 22 items was initially constructed based on seven point Likert scale. The items were reduced to 16 after content validity estimated based on judgment of fourteen experts. The retained items were administered on 182 working journalists. Exploratory and confirmatory factor analysis were employed for construct validation of the scale and it resulted in one factor solution with 09 items. The item loads were above 0.60. Alpha reliability of the scale was estimated at 0.927. Model fit indicators such as SRMR, RMSEA, RMR, CFI, NFI, AGFI, and specifically CMIN/df were found satisfactory. The journalist’s civic engagement scale is ready and available for use.

Keywords: Scale development, factor analysis, civic engagement, and journalists.
Introduction

Academics have been striving for long to grasp the wholesome context in which masses, both collectively and individually, are engaging or prepared to involve as members of their respective communities, becoming productive participants in their civil society. The basic assumption behind the quest to pursue this question is that there is a solid link between the people’s engagement and the fabric of community life (Ferrucci, Hopp, & Vargo, 2020; Pancer, 2015). Different research areas focus on different aspects of that fabric, whether they be the economic infrastructures or political (Lewis, MacGregor, & Putnam, 2013; Verba, Schlozman, & Brady, 1995), dynamics of demography (Allen & Turner, 1997), structures and social constructions (Wellman, 1997), physical ecologies (Park, Burgess, & McKenzie, 1925; Sampson, Morenoff, & Earls, 1999), the styles of peoples’ movement between them (Castells, 2000), or cultural orientations and formations (Appadurai, 1996).

Gibson (2000) explains absence of agreement on exactly what establishes the concept of civic engagement. The Campus Compact (organization which works for promoting greater civic engagement in higher education) suggests a scientific metaphor to discuss how a lack of agreement about the meaning of this particular term can be natural and even befitting in context of the relative immaturity of this field of inquiry field: Ramaley (2000), a biologist by training and the former president of Vermont University, has noted that when scientists come across a new phenomenon or biological system, they frequently strive for a while, as they attempt to define it by agreement and find out exactly what they have found. Likewise, civic engagement is a term used to refer many different citizenship philosophies and also associated with different types of activities (Hassan, & Hamari, 2020).

Deducing from the argument of Ramaley, how one defines the term civic engagement rests on the contextual perspective and very interests of the definer. The most striking point here is how widely the different definitions cover the concept? When viewed together, the definitions assist in suggesting the variety and extent of activities which the term incorporates and also advance the understanding how to highlight some salient points of the concept. In the following step, some examples are given how to define the term civic engagement. In the first section, only those definitions are considered which are somewhat limited in scope, or one can say which address mostly a singular concept or a specific realm. Whilst in the next step, the definitions having broader scope and are more inclusive are discussed in literature review in next segment. Now see how work is related with the idea of civic engagement.

Work pressure and economic ups and downs are making professions very demanding and employment in contemporary world is becoming more and more complicated where outside factors play their roles in performance outcomes (Sonnentag & Fritz, 2015). Role of the factors such as
professionals’ capacity to meaningfully engage in civic activities outside their work domain and its impact as benefit to their well-being is widely acknowledged in previous literature (Sonnentag, Kuttler, & Fritz, 2010; Booth, Park, & Glomb, 2009; Meuris & Leana, 2015; Ryan, Huta, & Deci, 2008; Ollier-Malaterre, 2010). Career researchers also documented the role of devoting one’s time to community engagements and taking personal interest in civic problems outside work environment is crucial for one’s sustainable and strong career growth over the time period (Ng & Feldman, 2014; Greenhaus & Kossek, 2014). This paper focuses on civic engagement to capture professionals’ [journalists in this particular case] nonworking experiences. There are two reasons: firstly, prior literature on the relationship of civic engagement and work is predominantly focused on western countries; secondly, this available literature too does not do justice when inquires a person’s non-work activities and predominantly focused on family time as compared to societal or community activities. Though considerable evidence supports that people tend to engage in roles outside family, especially community roles (Keeney, Bond, Sinha, Westring, & Ryan, 2013; Haar, Russo, Sune, & Ollier-Malaterre, 2014), thus making it an overlooked research area. Somewhat effort on scale development for assessing civic engagement is evident; however, civic engagement scale for professionals particularly for journalists is still unaddressed in the literature. Therefore, the effort has been made to make journalists’ civic engagement scale.

**Literature Review**

There are some definitions of the term civic engagement which focuses upon participation of people in voluntary service for community, either as individual performing independently or in a group as participant. For instance, as explained by Ferrucci, Hopp, & Vargo, (2020), Civic engagement is the duty of an individual to accept citizenship as responsibility along with firm commitment to participate actively, in individual capacity or as a part of a group, in such activities and voluntary services which reinforce the local community.

Some definitions confine the term civic engagement to only action taken collectively for improvement of society. Take for instance, as Diller (2001) notes any activity can be considered as civic engagement when people act together in their role as citizens and civic engagement is also defined by Benshoten (2001) such as the resources through which a person, by means of collective action, impacts the greater civil society or community. Hollister (2006) and Arshad and Zaman (2020) favor the active citizenship as term to explain social relationship to civic engagement; nonetheless, his definition equally stresses the importance of cooperation with others in different venues: “Active citizenship is all about joint action more than the individuals’ behavior. It encompasses collaboration, concentrated joint activity…solving community problems through work in all social areas, not only government.”
Some definitions bound the meaning of this term only to the activities which are not only collaborative but also inherently political in nature (i.e., that includes government action): Civic engagement diverges from an individual’s ethic of service as it guides individual efforts to collective action for solving problems involving political process” (Diller, 2001). Ronan (2004) also focuses on the collective and political the political dimensions of the term arguing about the historical roots of the term: ‘civic’ is the Latin word from which the words citizen and city are derived. So it is argued that civic engagement is almost rediscovering politics, the life circle of the polis (city), where people, as citizens speak and act together. Also word civic, once linked to engagement, it infers work, working which is done publicly and profits the public, and is done in collaboration with others.

Scholars do differentiate between the civic activities and service activities and stressing upon the inclusion of a public leadership component in civic engagement. There is difference between citizen’s participation in community affairs described as civic engagement which are not same as service missions. The civic can be viewed as doing with whereas service is more inclined towards doing for. Civic offers public work and deliberations aimed at resolving a given public problem or a challenge whereas service is more concerned with meeting public needs. Civic engagement encompasses leadership and active participation in public life (Arshad et al., 2021).

Many theories in different disciplines have been developed to explain behaviours related with socio-political activism and few among them have connected these determinants to the concept of civic engagement. One such example of this relation is provided by Pancer and Pratt (1999) in which they integrate all of these determinants and explains civic engagement as whole. Their theory postulates that civic engagement occurs on two levels complimenting each other: individual and systematic. On first level, individual level, people engage in civic activities because of various factors such as resources and values, personal attributes and influences, from friends (McClurg, 2006), parents (Kelly, 2018; Youniss et al., 2002), or social leaders such as teachers (McLellan & Youniss, 2003, Ahmed & Yousaf, 2021; Arshad, Ahmed, & Zeeshan, 2021). The demographic characteristics (gender, age, geographic region, and ethnicity) do influence a person’s willingness to participate or practically join civic activities (Moy, Manosevitch, Stamm, & Dunsmore, 2005; Putnam, 2000, Uslaner, 2003). Koc-Michalska, Lilleker, and Vedel (2016) propound the element of social change as inherent in civic engagement. For him, civic engagement describes how an active citizen participates in the life of the community in order to help shape its better future. Eventually, civic engagement has to embrace the perspective of social change.

Though the above reviewed literature somehow narrows the vision behind the concept of civic engagement, some scholars have explored a wide range of possibilities for civic engagement. For instance, Smith (200) refers to the term much broadly. For him, civic disengagement is detrimental
to community life. He sees the decline, quite sharp and steady, in people’s visits to friends, club meets, church attendance, card games, committee services, philanthropic activities and voter turnout which have effects on almost all the sectors of the US society. It is evident that he refers to formal as well as informal activities. Putnam’s basic interest is “social capital”, he often refers to the set of activities as civic engagement components which builds social capital.

Van Holm (2019) also writes in favour of the broad scope of civic engagement. To him, the term is very wholesome which encompasses a variety of activities; it is the individual as well as collective deeds done to explore, identify and answer various social problems. Civic engagement can take different forms, from a person’s volunteering to an organization’s participation in electoral process. Civic engagement can comprise efforts taken to address an issue directly, working in collaboration with other people for solving problems, or interacting with government for the same. Diller (2001) very generously broadening the canvas, says civic engagement includes all the activity related to personal and societal enhancement that ends in improved human condition and human connection. He furthers this idea and more subjectively states that civic engagement is experiencing a sense of interrelatedness, connection, and naturally commitment towards all life forms, the greater community.

Deducted from the above discussion, civic engagement works in a variety of dimensions and possesses different angles and aspects with different scholars emphasizing on one or the other. Scholars have long argued that the level of civic engagement of the members of a given society defines truly how much a democratic a society is (Norris, 1999; Putnam, 2000). A lively community consisting of vibrant people adds to consolidation of democracy and good governance in different ways (Theiss-Morse & Hibbing, 2005). At first, it inculcates basic values of participatory political culture, including moderation, tolerance, and respect for difference of opinion. Secondly, it encourages political participation among masses, furthering political efficacy, and increasing democratic aptitude and awareness. Thirdly, it instills effectiveness to achieve success against collective and political challenges. Fourthly, it empowers and enables different groups, containing traditionally excluded ones such as ethnic or racial minorities to attain their rights. Finally, it controls and monitors the state power, hence holds it accountable for the protection of individuals from its abuse. Therefore, civic engagement binds citizens into the political system and integrates society together (Paxton, 2002). Keeping in view the available literature, the effort has been made to develop a scale for assessing civic engagement of journalists. The scale was developed and validated through recommended procedures and its detail is given below:

Procedures

Item Pooling
Initially 22 items were developed based on literature review. The items were developed on 7 point Likert scale from always to never. As civic engagement variable represents an action, hence all the items were constructing by focusing generic practices of journalist in researcher’s context. Kline (2010) suggests the use of minimum three indicators to measure a construct. Moreover, Linn (2008) recommends to develop double number of items than the intended ones. In this study, the researcher the finalized items are nine that fulfills the recommendation of experts. However, the detail of validation process for the scale is explained below.

**Content Validation of JCES**

For content validity, Lawshe’ (1975) criterion is most frequently used by the assessment experts. Lawshe recommended to obtain opinion of experts on three options i.e. essential, necessary and unnecessary. Judgement of 14 experts was obtained on the scale to estimate content validity ratio (CVR) and content validity index (CVI). Six items were deleted having low CVR value than .42 and CVI is estimated on the basis of retained items. The following table presents CVR for the items and CVI for the scale.

<table>
<thead>
<tr>
<th>Item No.</th>
<th>CVR</th>
<th>Item No.</th>
<th>CVR</th>
<th>Item No.</th>
<th>CVR</th>
<th>Item No.</th>
<th>CVR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.71</td>
<td>5</td>
<td>1.00</td>
<td>9</td>
<td>1.00</td>
<td>13</td>
<td>0.57</td>
</tr>
<tr>
<td>2</td>
<td>0.86</td>
<td>6</td>
<td>0.71</td>
<td>10</td>
<td>0.71</td>
<td>14</td>
<td>0.71</td>
</tr>
<tr>
<td>3</td>
<td>0.86</td>
<td>7</td>
<td>0.86</td>
<td>11</td>
<td>0.86</td>
<td>15</td>
<td>0.86</td>
</tr>
<tr>
<td>4</td>
<td>1.00</td>
<td>8</td>
<td>0.86</td>
<td>12</td>
<td>0.86</td>
<td>16</td>
<td>1.00</td>
</tr>
</tbody>
</table>

**Table 1 Content Validity Estimates**

The estimations of CVR and CVI encourages the researcher to conduct pilot testing and report construct validity results.

**Construct Validation**

The retained 16 items were piloted on 182 journalists. Journalists who participated in the study were 111 (61%) male and 71 (39%) female. Missing values were replaced with series mean score. Exploratory factor analysis (EFA) was initially conducted on SPSS before moving for confirmatory factor analysis (CFA) on AMOS. As Carpenter (2018) recommended to apply EFA and then CFA to observe linkage of variables to their main construct. Additionally, De Vellis (2016) recommended to use literature, scree plot, and parallel analysis test to determine number of items in measurement model. While applying EFA in SPSS, varimax rotation was used according to the recommendation of Tabachnick & Fidell, (2013). The following table presents KMO and Barlett’s test of sampling adequacy.
Table 2 KMO and Bartlett's Test

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Olkin Measure</td>
<td>.931</td>
</tr>
<tr>
<td>of Sampling Adequacy.</td>
<td></td>
</tr>
<tr>
<td>Approx. Chi-Square</td>
<td>1100.842</td>
</tr>
<tr>
<td>Bartlett's Test of Sphericity</td>
<td></td>
</tr>
<tr>
<td>Df</td>
<td>36</td>
</tr>
<tr>
<td>Sig.</td>
<td>.000</td>
</tr>
</tbody>
</table>

KMO and Bartlett’s test is recommended to use for assessing sampling adequacy and its significance level (Tabachnick & Fidell, 2013). The findings of the test are important before moving forward for presentation of results. If the results are not as per recommendation then the researcher is required to rethink and again proceed the steps of scale development. However, the results in this study are satisfactory as KMO measure of sampling adequacy results the value of .931 that is obviously greater than the threshold values of 0.60 (Tabachnick & Fidell, 2013). Moreover, the Bartlett’s test indicates the significant value (0.000 < 0.05) which allows the scale developer to proceed onward.

Scree Test
The cutoff in line in the graph resulted through scree test supports the scale developer to judge the hidden number of factors in the data (Preacher & MacCallum, 2002). One factor solution is obvious from the scree plot, however, Tabachnick and Fidell (2013) argues that the scree plot contains subjectivity and approximation of factors can be misleading. Therefore, after present scree plot, parallel analysis results are also presented below.
**Figure-01: Scree Plot**

**Total Variance Explained and Parallel Analysis**
Parallel analysis is stronger technique to determine number of factors as compared to scree plot. Parallel analysis compares the randomly generated eigenvalues with original eigenvalues (Tabachnick & Fidell, 2013). If the random generated eigenvalue is greater than the original value then the factor is rejected and vice versa (Kline, 2013). The following table conforms that there is only one factor solution that is acceptable because the random generated eigenvalue of second component is greater than the original eigen value of the factor. Moreover, 63.765% variance is also satisfactory (Pett, Lackey, & Sullivan, 2003).

<table>
<thead>
<tr>
<th>Sr#</th>
<th>Component Eigen Value</th>
<th>Random Eigen Values</th>
<th>Decision</th>
<th>% of Variance</th>
<th>Cumulative %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.739</td>
<td>1.3994</td>
<td>Accepted</td>
<td>63.765</td>
<td>63.765</td>
</tr>
<tr>
<td>2</td>
<td>.678</td>
<td>1.2100</td>
<td>Rejected</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

09 variables, 182 respondents, and 25 iterations

**Component Matrix**
The following table presents component matrix. To obtain this component matrix, varimax rotation was employed as this is most frequently cited technique for orthogonal rotation (Dimitrov, 2017) and it is easy to interpret (De Vellis, 2012). This procedure was conducted by suppressing values below .40 because if the scale developers are intended to apply CFA then low eigenvalues of the items may create problem. The retained items in the scale have above .40 loadings that is acceptable (Tabachnick & Fidell, 2013).

<table>
<thead>
<tr>
<th>JCES items</th>
<th>Loads in EFA</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>.821</td>
</tr>
<tr>
<td>C4</td>
<td>.853</td>
</tr>
<tr>
<td>C5</td>
<td>.860</td>
</tr>
<tr>
<td>C7</td>
<td>.841</td>
</tr>
<tr>
<td>C9</td>
<td>.647</td>
</tr>
<tr>
<td>C11</td>
<td>.706</td>
</tr>
<tr>
<td>C12</td>
<td>.721</td>
</tr>
<tr>
<td>C15</td>
<td>.897</td>
</tr>
<tr>
<td>C16</td>
<td>.805</td>
</tr>
</tbody>
</table>
Confirmatory Factor Analysis

As Carpenter (2018) recommended to apply EFA and then CFA to observe linkage of variables to their main construct. Therefore, AMOS-21 has been used to apply CFA. AMOS uses co-variance based model fit summary that is more robust than the PLS which uses variance based modeling. Owing to the EFA item loads and retained items, the following measurement model graphic has been constructing using AMOS-21. The model confirms the nine items with acceptable loads.

![Figure-2: JCES Measurement Model](image)

Abbreviations of journal civic engagement and civic engagement are JCE and C respectively. The model highlights one factor containing nine items that are excellent according to recommendation of Kline (2013) that minimum three items are required to measure a construct and five items are excellent in this regard. Moreover, there is no issue of multicollinearity and unidimentioanlity of the factors as there is only one factor in the scale. Item loads are supposed as most crucial indicators for an effective scale and value of more than 0.40 is suggested as threshold values in CFA (Hair, Ringle, & Sarstedt, 2011). The loads range from 0.60 to 0.90 for all the items. An essential step after observing the item loads is to assess model fit summary representing goodness and badness of fit indices.

Model Fit indices

Researchers suggest different model fit indicators and they prefer the fulfilment of these indicators more crucial as compared to item loads. Different researchers prefer goodness of fit indicators more important and other focus on badness of fit, whereas, few recommended the use of both. McDonald
and Hu (2002) recommended to use CFI, GFI, NNFI, and NFI, whereas, Kline (2013) suggested SRMR, RMSEA, and CFI. Moreover, Basak, Ekmekci, Bayram, and Bas (2013) embrace RMR, GFI, AGFIA, NFI, and CFI. However, Hu and Bentler (1999) alerts the experts that no hard and fast rule should be followed. However, researcher followed a pragmatic approach and presented all the indicators suggested by the experts. Moreover, the values of badness of fit indicators i.e. RMR, SRMR, RMSEA, should be below 0.80 (Hair, Ringle, & Sarstedt, 2013). Moreover, all other indicators are considered goodness of fit indicators and their values are suggested above 0.90, however, the value close to 1.00 represents a better fit (Kline, 2013).

### Table-5: Goodness and Badness Model Fit Indices of the Followership Scale

<table>
<thead>
<tr>
<th>Sr.#</th>
<th>Indicators</th>
<th>Obtained values</th>
<th>Cut off Value</th>
<th>Reference</th>
<th>Judgment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CMIN/df</td>
<td>1.909</td>
<td>Below 3.00</td>
<td></td>
<td>Supported</td>
</tr>
<tr>
<td>2</td>
<td>CFI</td>
<td>.978</td>
<td>Above 0.90</td>
<td></td>
<td>Supported</td>
</tr>
<tr>
<td>3</td>
<td>GFI</td>
<td>.944</td>
<td>Above 0.90</td>
<td></td>
<td>Supported</td>
</tr>
<tr>
<td>4</td>
<td>AGFI</td>
<td>.906</td>
<td>Above 0.90</td>
<td>Hair et al. (2011)</td>
<td>Supported</td>
</tr>
<tr>
<td>5</td>
<td>NFI</td>
<td>.955</td>
<td>Above 0.90</td>
<td></td>
<td>Supported</td>
</tr>
<tr>
<td>6</td>
<td>RMR</td>
<td>.053</td>
<td>Below .080</td>
<td></td>
<td>Supported</td>
</tr>
<tr>
<td>7</td>
<td>SRMR</td>
<td>.030</td>
<td>Below .080</td>
<td></td>
<td>Supported</td>
</tr>
<tr>
<td>8</td>
<td>RMSEA</td>
<td>.071</td>
<td>Below .080</td>
<td></td>
<td>Supported</td>
</tr>
</tbody>
</table>

All the values of model fit indicators in the table are in the range as recommended by Hair et al. (2010).

**Cronbach Alpha**

Cronbach alpha is most frequently and preferred technique for determining reliability for the scales where the items are multi chotomous (Linn, 2008). A value of above 0.70 is considered good (Karagoz, 2019), whereas, values from 0.80 to 0.95 are preferred (Hair, Matthews, Matthews, & Sarstedt, 2017). The alpha value for the scale is found 0.927 that is in the acceptable range. However, the following table presents the importance of each item and its affective the scale variance.

### Table 6: Total Item Statistics

<table>
<thead>
<tr>
<th>Scale Mean if Item Deleted</th>
<th>Scale Variance if Item Deleted</th>
<th>Cronbach's Alpha if Item Deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1 25.7088</td>
<td>71.080</td>
<td>.914</td>
</tr>
<tr>
<td>C4 25.6868</td>
<td>71.653</td>
<td>.913</td>
</tr>
<tr>
<td>C5 25.6044</td>
<td>71.246</td>
<td>.912</td>
</tr>
<tr>
<td>C7 25.7198</td>
<td>70.954</td>
<td>.913</td>
</tr>
</tbody>
</table>
The table shows that the scale mean if any of the item deleted does not influence too much to the other values and minimum and maximum value for the scale mean if item deleted ranges from 25.3077 to 25.7198. Similarly, the scale variance is also not too much dependent on a single item and the variance ranges from 68.616 to 71.906. Moreover, the Alpha values is also remain in the range of 0.80 to 0.95 (Hair et al., 2017).

**Judgment Criteria**

The judgement criteria should consider the options of the Likert scale that are seven in this measure. However, the researcher prefers ease of interpretation and categorization. Therefore, the judgement criteria contains five levels from a highly engaged to poorly engaged journalist in civic purposes. The five levels are based on division of total scale in five equal parts. The following table presents a clear picture of judgement criteria.

<table>
<thead>
<tr>
<th>Range of Scores</th>
<th>Journalist’s Civic Engagement Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>52.21 - 63.00</td>
<td>Very High</td>
</tr>
<tr>
<td>41.41 - 52.20</td>
<td>High</td>
</tr>
<tr>
<td>30.61 - 41.40</td>
<td>Moderate</td>
</tr>
<tr>
<td>19.80 - 30.60</td>
<td>Low</td>
</tr>
<tr>
<td>Below 19.80</td>
<td>Very Low</td>
</tr>
</tbody>
</table>

**Discussion and Conclusion**

The findings of this research effort points out towards successful outcome in the form of journalists civic engagement scale. JCES is one-dimensional, that is behavioural, and has shown high reliability (Linn, 2008). The content validity has been substantially good and there is valid support from data towards construct validity of JCES (Hair et al., 2017). This scale has been basically validated from the working journalists, that is, a professional field. This scale would require further testing and research to further validate and generalize this scale where context and sample would be different. Every possible effort has been made to make this instrument easy to administer in any journalistic condition. While the current research generally focuses on journalists, this instrument can be used in related and matching professional settings. JCES could be utilized to measure
different levels and behaviours of journalists about their service learning towards community participation. Being one-dimensional, it can be expanded further also. This instrument is based on self-reporting and should be revalidated in case of adaption as 360degree measure. The items are clearly stated and intention of measurement is obvious. It has been done so that the respondents could choose their response towards the questions with ease hence enabling the researcher to get a good measure of level of civic engagement. Apart from these limitations, the evidence encourages to recommend this JCES in research and educational settings to those interested in investigating the relationship of civic engagement, its relationships and impacts.

References


