Construction Of Adapted Emotional Dissonance Scale For Individuals In Service Sector

Thanesa Iyer, Dr.Jaya Yadav

Abstract: The survey report of Ministry of Statistics and Programme Implementation, 2018-19 reveal that service sector alone contributes for 54.17 per cent of India’s Gross Value Added at current price. With employers across globe focused on “Hiring smiling faces” employees in service sector are constantly forced to hide and fake their emotions. The constant faking or hiding of emotions by service sector employees give rise to the phenomenon of Emotional Dissonance. Emotional dissonance is the unease developed as a result of hiding and faking emotions at work. Researchers over years have proved the harmful effect of emotional dissonance on employee well being and organization effectiveness. Therefore it is of utmost importance to keep a check on emotional dissonance of employee by developing a emotional dissonance scale as till date there are very few scale designed to measure emotional dissonance and even fewer to designed to cater across service sector. Thus the present study aims to adapt all the available emotional dissonance scale rated on 5 point scale. For the purpose of study a sample of 130 service sector employee were chosen using simple random sampling and the scale item were chosen using exploratory factor analysis and validated using confirmatory factor analysis. The final adapted scale was unidimensional in nature and comprised of 4 item on a 5 point scale with the internal consistency coefficient 0.798 for the whole scale. Therefore the findings suggest that Adapted Emotional Dissonance Scale is sufficiently reliable and valid for individuals working across service sector organization

Index Terms: Adaptation, Adapted scale, Dissonance, Emotional Dissonance, Emotional Dissonance Scale, Instrument, Scale adaptation, ·

1. INTRODUCTION

The services sector today act as the key driver in economic growth of India. According to survey report of Ministry of Statistics and Programme Implementation, 2018-19 service sector has alone contributed to 54.17 per cent of India’s Gross Value Added at current price. While the service sector today is growing at a massive rate so is the concern of organizations across nation. As evident employees who are the heart and soul of the service industry are getting emotionally drained thereby affecting not just their personal well being but also the service which they provide to customers. As per (Ash, 1984; Peters & Austin, 1985 and Rafaeli & Sutton, 1989)(ed process) most of the employer have a strong belief that there exist a strong/high correlation between smiling faces of their employees and organization revenue. Thus displays of friendliness and enthusiasm, for example, are expected to increase customer satisfaction, improve sales of the company/organization thereby increasing business, and ultimately, leading to financial success (Hochschild, 1983; Rafaeli & Sutton, 1987; 1989). As employees working in service sector are expected to smile and do what it takes to change the situation into good experience even when faced with difficult customers. Thus employees in service sector are expected to display only positive emotions while negative emotions are strictly prohibited in most of the jobs making employees emotional display no matter a personal affair instead making it a public act which are controlled by display norms (Kay Hei-Lin Chu,2002).Therefore emotional labor today is a most prevalent practice in service industry. Emotional labor term was 1st coined by Hochschild in his book The Managed Heart by Hochschild (1983,p.7), and is defined as “the management of feeling to create a publicly observable facial and bodily display” (1983, p.7). Many studies have highlighted the harmful effect of emotional labor of which emotional dissonance is also a part.

Emotional dissonance is a component of emotional labor and can be defined as the difference between felt and expressed emotions. Emotional dissonance is a work related stressor and is very common in among employees working in service industry (Karatepe and Aleshinloye, 2009) as they have to constantly engage in display of emotions which often does not match with the emotions they actually feel(Pizam, 2004). As a result most of the employees feel burnout due to display of fake emotions resulting in employees feeling disappointed with their jobs thereby developing an intention to quit by the employees(Wong and Wang, 2009). Previous studies have found that there are many negative consequences associated with emotional dissonance such as work-stress (Tewksbury and Higgins, 2006), job dissatisfaction (Adelmann, 1989), burnout (Schabbe, 2006), and employee turnover (Moore, 2000). Even emotional dissonance was found to arouse employee turnover intention( Abraham,1999) and emotional exhaustion (Karatepe et. al.,2009) (Subhash C. Kundu and Nidhi Gaba,2017) along with its harmful effect on employee well being ( J Andrew Morris & Daniel C Feldman, 2013), employee productivity(Arnold B. Bakker & Ellen Heuven, 2006 & Cheung, Francis Yue-Lok,Tang & Catherine So-Kum,2007) as well as organization effectiveness.

Emotional dissonance have also been a leading cause behind work strain ( Francis Cheung & Catherine Tang, 2010), work exhaustion ( Paige S. Rutner, Bill C. Hardgrave & D. Harrison McKnight, 2008) and low self perception of delivery(Daniel J. Beal, John P. Trougakos, Howard M. Weiss & Stephen G. Green, 2006). Thus there is a increasing need to study the feeling state rather than stress, burnout and job satisfaction as they are the resultant of emotions felt by the employee(Subhash C. Kundu & Nidhi Gaba, 2017). Thus the present study is aimed at developing an Adapted Emotional dissonance scale specifically designed for individual working across service industry. Keeping in mind the time constraint scale adaptation was chosen over scale construction as Scale adaptation is often preferred by researchers as it is more rapid and less costly than actual scale development. Researchers has proven adaptation of scales more reliable for the studies (Hambleton and Patsula,
1998). The process of scale adaptation involves following a general design of another instrument but include adding items, removing items and making the changes in the content as per requirement. Therefore it can be stated that adapting an instrument is very much similar to developing an instrument except for requirement of generate a wide pool of items during scale construction before entering into the analysis phase(Katrina A. Korb, 2012).

2 METHOD

The literature review served as source of the scale items selection from already available 5 point likert scale instrument followed by collection of data to check its reliability and validity as detailed below:

2.1 Designing of Instrument

Total of 14 items were chosen to adapt the emotional dissonance scale. All 14 items originally were measured on 5 point likert scale. Out of 14 items: 1st four item comprised of items from Frankfurt Emotional Work scale developed by Zapf et. al., 1999 while 5th and 6th item were chosen from Dutch Questionnaire on Emotional Labor (D-QEL) (Briët, Närning, Brouwers, & van Droffelaar, 2005), extended with two newly developed subscales. The D-QEL is based on the Emotional Labor Scale (ELS) (Brotheridge & Lee, 1998) but consists of four instead of two scales. It measures surface acting (5 items), deep acting (3 items), suppression (3 items) and emotional consonance (2 items). Hence 2 items of emotional consonance were chosen which were reverse scored while measuring emotional dissonance of an individual. Further on, the 7th and 8th item were chosen from the Discrete Emotions Emotional Labor Scale (DEELS) (Briët & Lee, 1998) but consists of four instead of two scales. It measures surface acting (5 items), deep acting (3 items), suppression (3 items) and emotional consonance (2 items). Hence 2 items of emotional consonance were chosen which were reverse scored while measuring emotional dissonance of an individual. Further on, the 7th and 8th item were chosen from the Discrete Emotions Emotional Labor Scale (DEELS) ), which was developed and validated by Glomb and Tews in 2004. The DEELS scale originally consists of three subscales namely genuine expression, faking, and suppression. However, as this study aimed at measuring emotional dissonance, only two of the three subscales (faking and suppression) were utilized in the study. Both of the subscales were comprised of 14 sub-items, of which each item addressed a certain emotion ranging from irritation to enthusiasm. Then 9th to 12th item was chosen from Krumi-Geddes Emotional Labor Scale (version 3, Copyright 2004) with her due consent in which 2 items were reverse scored. While the last 2 item were chosen from revised Frankfurt Emotional Work scale(Cara Jonker,2012) developed by Zapf et. al., 1999 of which one was reverse scored item.All fourteen item which were used to measure emotional dissonance were measured by using a five point likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).The wordings were modified as per requirement during the process

2.2 Sample of Research

Simple Random sampling method was used to determine the sample of the study. The study was carried out with 125 service sector employees. Participants were aged between 19 to 55 (inclusive). Over one third of the participants were middle aged and the Data was collected by mean of offline questionnaire

2.3 Instrument and Procedures

The scale is a one-dimensional Likert-type scale containing 14 items. These items or questions aim at measuring the unease caused by difference in felt v/s expressed emotion. There are 5 reverse-coded items in the scale. All the 5 authors were contacted by e-mail before adapting their scale. Written permission to adapt the scale was received from each of them. Exploratory Factor Analysis was carried out to check the uni-dimensional of the scale followed by Confirmatory factor analysis in order to test the scales construct validity. Item analysis of the scale was carried out by the corrected item-total correlation method, and reliability was analyzed through the internal consistency method. SPSS and AMOS software programs were used in the analysis of reliability and validity.

3 FINDINGS

3.1 Scale Purification

In order to purify one measurement instrument coefficient alpha need to be computed(Churchill,1979).In order to item, the item’s corrected item-to-total correlation need to be considered. As per Churchill,1979 items with correlations less than 0.30 should be discarded (Churchill, 1979). Out of 14 items 8 items were removed by running reliability analysis as they had correlations less than .30 . Thus uni-dimensionality examination was carried out for the remaining 6 items of the scale.

3.2 Exploratory Factor Analysis

The first step in performing exploratory factor analysis begins with examining the data matrix. A sufficient correlations justifies the application of factor analysis. The basic guidelines to help check the correlations is that the substantial number of correlations among items need to be greater than .30. While other assumption include partial correlation need to be small, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy needs to be as large as possible and the barlett’s test of sphericity should be significant to ensure there is presence of correlation among variables. Thus the examination of data matrix was carried out. The examination revealed that out of 6 items 2 items failed to correlate higher than 0.3 with atleast one other item thus those items were removed. So the factor analysis was then finally performed on 4 items that were retained.

As the Kaiser-Meyer-Olkin (KMO) test considers whether or not the sample size is sufficient and the Bartlett test questions whether or not the data has multivariate distribution. When the value is 0.60-0.79 in the KMO test the sample size is assumed to be “good”; while the KMO value of 0.80-0.89 ensures the sample size is “very good”; with 0.90 or above KMO value regarded as the sample size is “perfect” (Tavascil, 2002). The KMO (Kaiser-Meyer-Olkin) value for this study was found to be 0.650 while the Bartlett test result was X^2=56.407 (p< .00).Thus the scale was found suitable for exploratory factor analysis as shown in table 1
As factor analysis is a statistical technique which aims at reducing a variable and helps in reaching a significant conceptual structures which can then be interpreted easily (Tabachnick & Fidell, 2007 and Ozdamar, 2002). After determining the scales suitable, exploratory factor analysis was conducted with varimax and principal component analysis methods and results were interpreted based on eigen value, scree plot and percentage variance explained. The analysis revealed the single factor structure of the scale as shown in Table 2.

### Table 2

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Total Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1.940</td>
<td>48.511</td>
</tr>
<tr>
<td>2</td>
<td>0.825</td>
<td>20.616</td>
</tr>
<tr>
<td>3</td>
<td>0.791</td>
<td>19.777</td>
</tr>
<tr>
<td>4</td>
<td>0.444</td>
<td>11.096</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.

According to Table 3, factor loading values of the scale items range from .804 to .563. Factor loading values that are 0.60 or over are regarded as “high”, but values of 0.30-0.59 are regarded as “medium” (Buyukozturk, 2002). The factor loading values for this study for almost all items are observed as being of a high level.

The visual examination of scree plot indicates that the scale is uni-dimensional by nature. Furtheron the total variance that the single factor of the scale explains is 48.511% as shown in Table 2. As per Buyukozturk, 2010 the variance that a scale with single factor should explain should be at least 30%. As the current scale percentage explained variance is far from required level thus it validates the single factor structure of scale as reliable.

### 3.3 Confirmatory Factor Analysis

In order to test the construct validity of the scale Confirmatory Factor Analysis was conducted by using Amos 18 software. Confirmatory factor analysis can be used in developing a new scale, to examine the psychometric features of a new or existing scale, or to question the construct validities of scales (Harrington, 2008; Brown, 2006).

For the current study the Maximum Likelihood method was preferred for the CFA. Chi-Square Goodness of Fit, χ², RMSEA (Root Mean Square Error of Approximation), GFI (Goodness of Fit Index), CFI (Comparative Fit Index), NFI (Normed Fit Index), TLI (Tucker Lewis Index) and AGFI (Adjusted Goodness of Fit Index) fit indexes were taken into consideration in this study and the values obtained regarding the single factor scale structure are shown in Table 4,5,6,7,8.
When the goodness of fit indexes of the CFA are considered, the results are as follows; relative Chi-Square (CMIN/df: 0.798), goodness of fit index (GFI: 0.992), adjusted goodness of fit index (AGFI: 0.962), comparative fit index (CFI: 1.000), normed fit index (NFI: 0.972) and Tucker-Lewis Coefficient (TLI: 1.023), root mean square error of approximation (RMSEA: 0.00). All the values are considered to be good fit rates as shown in table below. Thus “Emotional Dissonance scale” was therefore regarded as convenient to be explained with a single factor model.

<table>
<thead>
<tr>
<th>Model</th>
<th>RMSEA</th>
<th>LO 90</th>
<th>HI 90</th>
<th>PCLOSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default model</td>
<td>0.00</td>
<td>0.00</td>
<td>0.185</td>
<td>0.533</td>
</tr>
<tr>
<td>Independence model</td>
<td>0.293</td>
<td>0.227</td>
<td>0.365</td>
<td>0.000</td>
</tr>
</tbody>
</table>

The chi square associated with the model was obtained as 1.597(df=2), p value=0.450. As the p value is insignificant suggesting that proposed model is consistent with the observed data. As higher the p value associated with chi square the better the fit therefore with p value = 0.450 which is much greater that 0.05 further validates that the model is a good fit.

The track diagram drawn with the AMOS graphic from the CFA is shown in Figure 2. It is possible to observe the factor loading values of the items on the track diagram in Figure 2. As per Aytac & Ongen, 2012 all the standardized values should be below 1.00. Tabachnich and Fidell, 2007 state that when a factor loading value is below 0.30, it is not taken into consideration. As a general rule, when the factor loading value is above 0.71, it is regarded as “perfect”; when 0.63-0.70 it is “very good”; when 0.55-0.62 it is “good”; when 0.45-0.54 it is “medium”; and when 0.32-0.44 it is regarded as a weak factor loading value. Therefore as the factor loading ranged from 0.60 to 0.77 it can be regarded as a good fit over all.

### 3.4 Reliability of Scale

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Good Fit</th>
<th>Acceptable Fit</th>
<th>Present Model Fit Values</th>
<th>Inference</th>
</tr>
</thead>
<tbody>
<tr>
<td>(CMIN/df)</td>
<td>CMIN</td>
<td>RMSEA</td>
<td>NFI</td>
<td>CFI</td>
</tr>
<tr>
<td></td>
<td>&lt; 2</td>
<td>0.06-1.00</td>
<td>0.94-0.95</td>
<td>2.09</td>
</tr>
<tr>
<td></td>
<td>0.05</td>
<td>0.94-0.95</td>
<td>0.972</td>
<td>0.992</td>
</tr>
<tr>
<td></td>
<td>0.97</td>
<td>0.95</td>
<td>1.000</td>
<td>Good fit</td>
</tr>
<tr>
<td></td>
<td>0.90</td>
<td>0.99</td>
<td>0.962</td>
<td>Good fit</td>
</tr>
<tr>
<td></td>
<td>0.90</td>
<td>0.94</td>
<td>1.033</td>
<td>Good fit</td>
</tr>
</tbody>
</table>

The Cronbach Alpha coefficient for the “Adapted Emotional Dissonance Scale” is α=.798. According to Ozdamar (2004), a scale with Cronbach Alpha coefficient between 0.80 and 1.00 is considered to be highly reliable. We can therefore conclude from these findings that overall, the scale is highly reliable.

### 4 CONCLUSION AND DISCUSSION

This study was conducted in order to adapt the Emotional Dissonance Scale, originally developed by Berk et al. (2005). The process of adapting the scale included to analyze the validity and reliability of the scale for service sector employees. Even though there has been an increase in the study linked to studying the impact of emotional dissonance on individuals but there are still limited numbers of assessment instruments which are solely designed to measure emotional dissonance as most of the studies have made use of sub component of emotional labor scale which measure emotional emotional dissonance as a part of emotional labor. The purpose of this study was to adapt a reliable and valid assessment instrument in order to determine the emotional dissonance of individuals working in service sector. Hence, it could be possible now to use an instrument solely designed to measure emotional dissonance amongst individuals in service sector. Scale items from various 5 point Likert scale was used for measuring emotional dissonance were chosen based on extensive literature review. The data was collected via questionnaire comprising of 14 items using convenience sampling from a sample of 125 service sector employees who mainly belonged to professions like teachers, doctors, nurses, sales executive and front office employees. The data collected underwent validity test, with KMO (0.65) and Bartlett (X2=56.407; p<.00) test indicating that
the scale was convenient for exploratory factor analysis. The correlation of scale items with other items was examined and two item were deleted due to its low convenience level with the other items (r<.30). Factor analysis reconducted on 4 items indicated that the scale had a one dimensional structure, with factor loading values ranging from .804 to .563. The total variance that the one dimensional factor explains is 48.511%. Confirmatory factor analysis was carried out to test the construct validity of the scale and the results confirmed the one dimensional structure of the scale. When the goodness of fit indexes of the CFA are considered, the results were as follows: Relative Chi-Square (CMIN/df: 0.798), goodness of fit index (GFI: 0.992), adjusted goodness of fit index (AGFI: 0.962), comparative fit index (CFI: 1.000), normed fit index (NFI: 0.972) and Tucker-Lewis Coefficient (TLI: 1.023), root mean square error of approximation (RMSEA:0.00). All the values are considered to be good fit rates. The reliability of the scale was determined with the Cronbach Alpha coefficient. The Cronbach Alpha coefficient for the “Emotional Dissonance Scale” was α=.798. Thus making the scale highly reliable. The highest score that could be gained from this Likert-type scale with 4 items is 20 and the lowest possible score is 5. Higher scores indicate that the individuals are having emotional dissonance hence increasing chances of poor performance, burnout, stress, poor job involvement. On the basis of the analyses of the results obtained, it can be stated that the Adapted Emotional Dissonance Scale is a valid and reliable instrument for measuring emotional dissonance of individuals working in service sector.

5 LIMITATION OF THE STUDY

Due to time constraint the current study could not work on construction of emotional dissonance scale. Also Time constraint limited the researcher to choose between 5 point likert scale v/s 7 point likert scale thereby leaving a scope for research. Furtheron sample size and sampling technique may also limit the study

6 SCOPE OF FUTURE RESEARCH

This adaptation was carried out for only service sector employees hence in future the scale can be adapted for individuals across various sectors. Furtheron as the current scale only considered item on 5 point likert scale hence in future researches can work to adapt a 7 point likert scale. Also a comparative analysis of 5 point scale vs 7 point scale should be carried in future to determine the effectiveness of the scale across various sectors. Preference should be given to construct a emotional dissonance scale by taking items from all existing 5 point and 7 point instrument designed for specific profession as nature of the job decides to a large extent the questions posed

7 END SECTIONS

7.1 Appendices

<table>
<thead>
<tr>
<th>N</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I show the same feelings to clients that I feel inside</td>
</tr>
<tr>
<td>2</td>
<td>I have to cover up my true feelings when dealing with clients.</td>
</tr>
<tr>
<td>3</td>
<td>I have to suppress emotions in order to appear “neutral” on the outside when dealing with clients.</td>
</tr>
<tr>
<td>4</td>
<td>I try not to show clients the emotions I truly feel inside.</td>
</tr>
</tbody>
</table>

7.2 Acknowledgments

The author may like to thank previous scale developer as the study could not have been accomplished if the previous scale developer would have not given their permission to use their scale. Also sincere thanks to the participants of the study for filling up the questionnaire with patience.

REFERENCES