Predictors of Quality of Work Life among Teachers Working in Higher Education Sector of Kerala

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Abstract

The objective of the study is to analyse the predictors of quality of work life of teachers working in higher education sector. The study is an empirical one adopting cross sectional study design. The data required for the study has been collected from 600 teachers working in different higher education institutions in the Kerala state of India. Based on the review of related literature, seven predictors that determine the quality of work life of teachers working in higher education has been selected. They are: Autonomy in Work, Compensation and Job Security, Opportunity for Professional Development, Work Satisfaction and Recognition, Interpersonal Relationship, Stress at Work, and Work Environment. Hypotheses have been developed and tested for significance. The PLS based SEM reveals that the four factors are significant in predicting the QWL of teachers working in higher education sector.

Key words: **Quality of Work Life; Teacher; Higher Education; SEM.**

1. The Context

Quality of work life is a significant variable which determine the productivity and efficiency of any workforce. An analysis of the factors that influence the quality of work life of the key human resource employed in the higher education sector, the teachers, can serve as a substantial input into the design of policies, programmes and strategies to enhance and improve their effectiveness and it will help them to contribute to a greater level to the nation building process and development.

2. Review of Related Literature

Various researchers in the past have explored the factors that influence the quality of work life (Elizur and Shye, 1990). Although early researchers on the subject did not make a distinction between job satisfaction and quality of work life (Lawler and Porter, 1966) the term was later redefined to include factors, which lead to subjective well being too (Adhikari1979). Hackman and Oldman (1976) explored various facets and

models and studied quality of work life in relevance to psychological growth needs. Taylor (1979) took intrinsic and extrinsic factors into consideration while investigating the factors, which determine the quality of work life. Glasier (1976) evaluated the quality of work life on the basis of good working conditions, job security and adequate and fair compensation, as against Mills (1976) who connected quality of work life with quality of relationships with the employees and working environment in the wider context of human, economic and technical factors. Runcie (1980) brought perception into consideration in the study of quality of work life.

The contemporary researchers have expressed quality of work life as a function of job requirement, work environment, supervisory behaviour and ancillary programs (Sirgy et. al., 2001). Oshagbemi (1999) points out the relevance of job satisfaction to the physical and mental well-being of employees. Lowe (2000) concludes that "high quality work" is work that is respectable, meaningful and life-enhancing, and, therefore, worker centred.

A number of researchers and theorists have been paying attention in to the meaning and dimensions of the QWL concept and have tried to identify the kinds of factors that determine such an experience at work. Studies of Pruett (2001), Johnsrud (2002), Osmany, (2003), Raduan (2006) are examples. Karen Seashore Louis (2006) revealed that the way in which teachers' quality of work life contributes to their commitment to work and their sense of efficacy. Hart (2011) hypothesized that psychological distress and morale would be separate outcomes of positive and negative work experiences. Emadzadeh (2012) studied the quality of work life and its components in the primary school teachers. Areekkuzhiyil (2016) analysed the QWL of teacher working in the higher education sector of Kerala and its relationship with their knowledge sharing practices.

3. Objective of the Study

The objective of the study is to analyse the predictors of the quality of work life of teachers working in higher education sector.

4. Research Framework and Hypotheses

The research framework adopted in this work contains seven independent variables and a single dependent variable. The independent variables are (i) Autonomy in work (ii) Compensation and job security (iii) Interpersonal relationship (iv) Opportunity for professional development (v) Stress at work (vi) Work environment and (vii) Work satisfaction and recognition. The dependent variable is quality of work Life. The main objective of this study is to examine the influence of each independent variable on the dependent variable. In order to test the influence of each variable on the dependent variable, the following hypotheses have been developed.

1. Autonomy in work (AW) has a significant positive impact on the quality of work life (QWL) of teachers
2. Compensation and job security (CJS) has a significant positive impact on the quality of work life (QWL) of teachers

3. Interpersonal relationship (IR) has a significant positive impact on the quality of work life (QWL) of teachers

4. Opportunity for professional development (OPD) has a significant positive impact on the quality of work life (QWL) of teachers

5. Stress at work (SW) has a significant negative impact on the quality of work life (QWL) of teachers

6. Work environment (WE) has a significant positive impact on the quality of work life (QWL) of teachers

7. Work satisfaction and recognition (WSR) has a significant positive impact on the quality of work life (QWL) of teachers.

5. Methodology

The present study is an empirical one based on primary data. The data required for the study has been collected by using Quality of Work Life scale (Areekkuzhiyil, 2019) from a representative sample of 600 teachers working in higher education sector in the state. The Quality of Work Life scale is a five point likert type scale. The validity of the scale has been ensured by following systematic scale development procedure and it possess good reliability as evidenced by the high Chronbach alpha of 0.798.

5. Test of Normality

The normality of the distribution of the scores of quality of work life of teachers has been verified with the help of statistical tests and graphical methods. The result of Kolmogorov-Smirnov test and Shapiro-Wilk (K-S) test has been given in table 1. The Kolmogorov-Smirnov test statistic is 0.063 which is not significant (p= 0.200) and Shapiro-Wilk (K-S) test statistic is 0.984 which is also not significant (p= 0.623). It indicates that the scores are normaly distributed. The box and whisker plot, normal P-P plots and normal Q-Q plots for the variable quality of work life also indicate the normality of the distribution of scores.

Table 1

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
QWL	0.063	600	0.200*	0.984	600	0.623

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

6.   PLS Structural Equation Modelling of QWL

The conceptual model developed for the quality of work life of teachers has been evaluated using a two-step approach (i.e. inner model or measurement model and outer model or structural model) on the hierarchal basis. First, the inner-model was assessed through examining psychometric reliability and validity tests for the measurement items used.

6.1.   Analysis of the Measurement Model

To analyse the measurement model individual item reliability, internal consistence and discriminant validity are tested. These are described below.

6.1.1. Individual Item Reliability

The details of the results of the PLS analysis for the individual item loading has been presented in table 1. Individual item reliability has been tested by examining the individual loadings of the measures to see the links between measures and factors. Items with loadings of 0.7 or more imply that there is much more shared variance than error variance between the construct and its measure (Hulland, 1999) and 19 measures fill the criteria. Value higher than 0.4 (Churchill, 1979) are also recommended. The remaining measures satisfy these criteria.

Based on PLS measurement analysis, table 2 show that the absolute correlation between the construct and its measuring manifest items (i.e. factor loading) was above than the minimum threshold criterion 0.4. The factor loading was ranging from 0.471 to 0.96 and satisfied the requirements of the psychometric reliability test (Henseler et al., 2009; Churchill, 1979).

Table 2

Individual Item Reliability of the Basic Model QWL

Latent variables	Indicators	Loadings	Indicator Reliability (Loading^2)	t Statistic	P value	VIF
Autonomy in Work (AW)	AW-1	0.836	0.699	30.121	0.000	1.320
	AW-2	0.823	0.677	21.363	0.000	1.508
	AW-3	0.647	0.419	6.751	0.000	1.252
Compensations and Job Security (CJS)	CJS-1	0.768	0.59	14.498	0.000	2.336
	CJS-2	0.729	0.532	13.288	0.000	1.262
	CJS-3	0.831	0.691	16.365	0.000	2.688
	CJS-4	0.679	0.461	11.421	0.000	1.238
Interpersonal Relationship (IR)	IR-1	0.826	0.682	14.883	0.000	1.732
	IR-2	0.826	0.55	15.035	0.000	1.772
	IR-3	0.742	0.671	23.810	0.000	1.723
	IR-4	0.819	0.433	9.130	0.000	1.390
Opportunity for Professional Development (OPD)	OPD-1	0.658	0.433	12.495	0.000	1.213
	OPD-2	0.788	0.621	14.272	0.000	1.776
	OPD-3	0.737	0.543	10.790	0.000	1.514
	OPD-4	0.872	0.761	33.104	0.000	2.306
Quality of Work Life (QWL)	QWL-1	0.677	0.458	12.815	0.000	1.720
	QWL-2	0.660	0.436	12.238	0.000	1.544
	QWL-3	0.631	0.398	12.209	0.000	1.550
	QWL-4	0.656	0.43	12.378	0.000	1.679
	QWL-5	0.684	0.468	12.056	0.000	1.716
	QWL-6	0.698	0.487	12.072	0.000	2.114
	QWL-7	0.660	0.435	9.495	0.000	1.607
	QWL-8	0.776	0.602	21.168	0.000	2.664
Stress at Work (SW)	SW-1	0.738	0.544	4.622	0.000	1.111
	SW-2	0.874	0.764	9.458	0.000	1.111
Work Environment (WE)	WE-1	0.961	0.923	8.947	0.000	1.044
	WE-2	0.470	0.221	2.378	0.018	1.044
Work Satisfaction	WSR-1	0.618	0.382	11.051	0.000	1.388
	WSR-2	0.695	0.484	11.748	0.000	1.577

and Recognition (WSR)	WSR-3	0.703	0.494	12.081	0.000	1.597
	WSR-4	0.685	0.469	18.535	0.000	1.487
	WSR-5	0.816	0.665	27.686	0.000	1.944
	WSR-6	0.732	0.536	17.391	0.000	1.494

6.1.2. Indicator Validity

The indicator validity was examined by using Variance Inflation Factor (VIF) which should be higher than 0.20 but lower than 5.0 (Cassel and Hackl, 2000). Table 2 show that all the items satisfy the above criteria and hence the indicator validity has been of the items has been ensured.

6.1.3. Measurement of the Reliability (Internal Consistency)

Construct level reliability was examined by using Cronbach's alpha (α) and by composite reliability. Table 3 shows that the Cronbach's alpha (α) was higher than the required value of 0.7 (Cronbach, 1951) and composite reliability was higher than the recommended 0.7 value (Nunnally and Bernstein, 1994). The lowest value of Chronbach's alpha is 0.702 and composite reliability is 0.705 and these are for the factor work environment.

Table 3
Internal Consistency of the Model of Predictors of QWL

Latent Variables	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Autonomy in Work (AW)	0.770	0.815	0.598
Compensation and Job Security	0.747	0.840	0.569
Interpersonal Relationship (IR)	0.761	0.848	0.584
Opportunity for Professional Development (OPD)	0.763	0.851	0.590
Quality of Work Life (QWL)	0.834	0.874	0.564
Stress at Work (SW)	0.781	0.790	0.654
Work Environment (WE)	0.702	0.705	0.572
Work Satisfaction and Recognition	0.802	0.859	0.505

6.1.4. Measurement of Convergent Validity

Table 3 shows that the average variance extracted (AVE) for the each construct was higher than the required value 0.5 (50%) (Fornell and Larcker, 1981) and indicate that each construct has the capability to explain more than half of the variance to its measuring items on average.

6.1.5. Measurement of Discriminant validity

Discriminant validity at construct-level was examined using Fornell and Larcker (1981) criterion, while at item level was examined using Chin (1998) criterions. Fornell and Larcker criterion suggest that square-root of AVE for each constructs should be greater than the other construct's correlation with any other (i.e. inter-construct correlation). Table 4 shows that this criterion has been satisfied by all the constructs. Square-root of AVE has been given in bold in the diagonal.

Table 4

Fornell-Larcker Analysis for Discriminate Validity of the Model of Predictors of QWL

	AVE	AW	CJS	IR	OPD	QWL	SW	WE	WSR
AW	0.598	*0.773*							
CJS	0.569	0.379	*0.754*						
IR	0.584	0.419	0.089	*0.764*					
OPD	0.590	0.521	0.447	0.356	*0.768*				
QWL	0.564	0.677	0.531	0.450	0.613	*0.681*			
SW	0.654	0.190	0.111	0.259	0.202	0.234	*0.809*		
WE	0.572	0.309	0.228	0.290	0.354	0.383	0.268	*0.756*	
WSR	0.505	0.572	0.455	0.506	0.559	0.805	0.268	0.340	*0.711*

Source: Computed from Primary Data

6.2. Structural Model of QWL

The structural model specifies the relations between constructsand test the hypotheses of the study. Analysis of relationships between constructs and their explained variance is done by assessing path coefficients and R^2 values. The figure 1 gives the PLS SEM result for the reflective model.
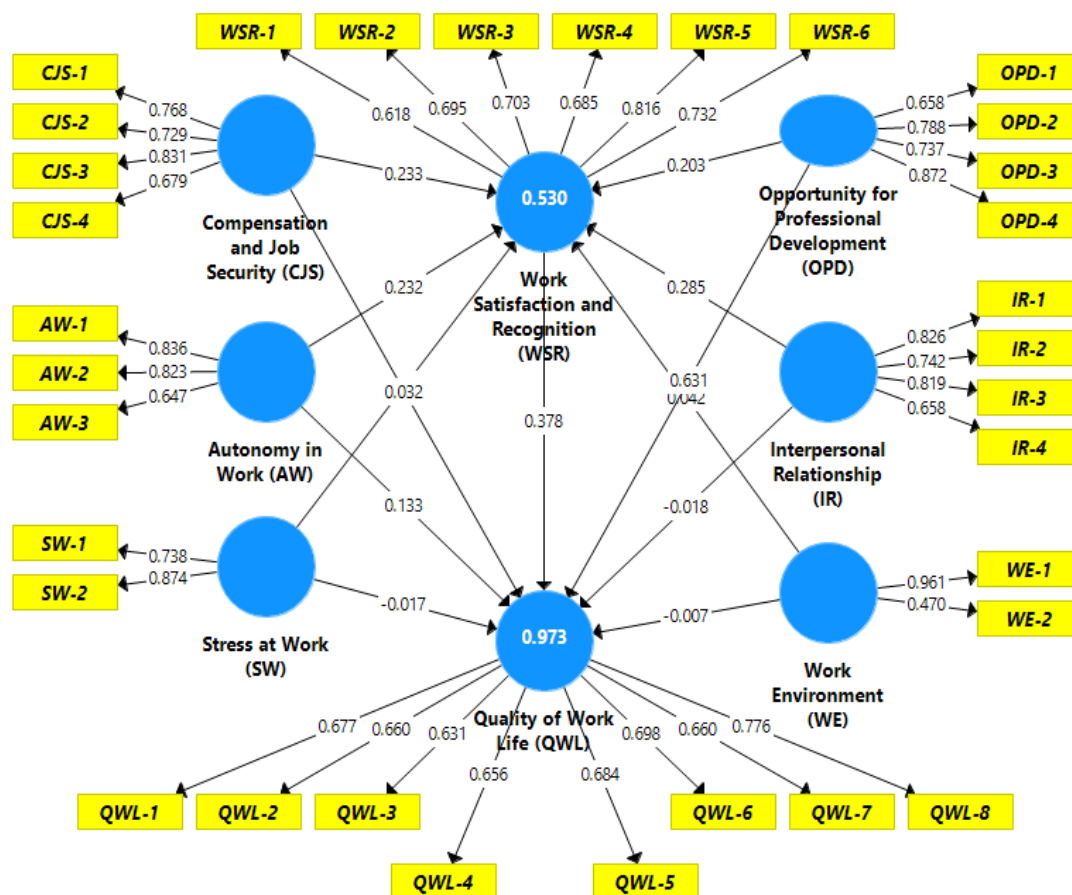

Fig.1: PLS Based Path Diagram for the Model of Predictors of QWL

6.2.1. Model Fit Summary

The model fit has been examined with the help of determination of coefficient (R^2) values. Table 5 gives the model fit summary for the model of quality of work life. The R^2 value for quality of work life is 0.975

(97.5%), which is a very high and substantial level. It indicates that these variables determine 97.5% of the quality of work life of teachers working in higher education sector.

Table 5

Determination of coefficient (R^2) of the Basic Model QWL

Variables	R Square	t Statistic	P Value
Quality of Work Life (QWL)	0.973	229.999	0.000
Work Satisfaction and Recognition (WSR)	0.530	9.144	0.000

Source: Computed from Primary Data

6.2.2. Goodness of Fit Index (GoF)

The Goodness of Fit index of the model has been computed as the geometric mean of the average communality (i.e. outer-model or measurement model) and the average of R^2 (i.e. variance explained into dependent variable). The GoF is normed between 0 to 1, where the higher value represents better path model estimation (Heneseler et al., 2009). The GoF for the present model was 0.4056 (40.56 %) (see table 6) and can be accepted at moderate level (Chin, 1998). The average communality for the model was 0.219 which suggest that variance extracted by the indicators/items towards underlying construct were significant than the shared variance compared to the others.

Table 6

Overall Review of result and Goodness of Fit of Model of Predictors of QWL

Latent Variables	Composite Reliability	R^2	Communality	Redundancy
Autonomy in Work (AW)	0.815		0.217	
Compensation and Job Security (CJS)	0.840		0.267	
Interpersonal Relationship (IR)	0.848		0.303	
Opportunity for Professional Development (OPD)	0.851		0.317	
Quality of Work Life (QWL)	0.874	0.973	0.297	0.427
Stress at Work (SW)	0.790		0.041	
Work Environment (WE)	0.705		0.014	
Work Satisfaction and Recognition (WSR)	0.859	0.530	0.298	0.246
Average		*0.751*	*0.219*	
Goodness of Fit		**0.40555**		

GoF = Goodness of Fit index $=\sqrt{Avarage R^2 x Avarege Communality}$

6.3. Path Estimation and Testing of Hypotheses

The path estimation also known as nomological validity (i.e. hypothetical relations) was performed to examine the significance of the path relations in inner-model (e.g. Chin, 1998). Each path relationship (hypotheses) presented in the study was examined though regression coefficient (β). The significance of regression coefficient (β) is based on t-value, which was obtained using PLS Bootstrap process.

The bootstrapping analysis is used to determine the confidence intervals of the path coefficients and statistical inference. It helps to perform statistical testing of hypotheses that is to accept or reject the

hypotheses. The researcher has adopted 5000 bootstrap samples. Table 7 shows the path model (hypothesis) with its respective t-values for each and every path.

Table.7

Structural Relations and Path significance of Predictors of QWL

Path Coefficients	B	Σ	t	P	f^2
AW→ QWL	0.133	0.019	7.022**	0.000	0.382
CJS→ QWL	0.032	0.015	2.067*	0.039	0.026
IR→ QWL	-0.018	0.018	0.972	0.331	0.007
OPD→ QWL	0.631	0.030	20.719**	0.000	8.467
SW→ QWL	-0.017	0.016	1.087	0.278	0.010
WE→ QWL	-0.007	0.018	0.403	0.687	0.002
WSR→ QWL	0.378	0.027	14.201**	0.000	2.491

** Significant at 0.001 level
* Significant at 0.05 level

Table 7 shows that out of seven path relations representing the hypotheses and four are significant.
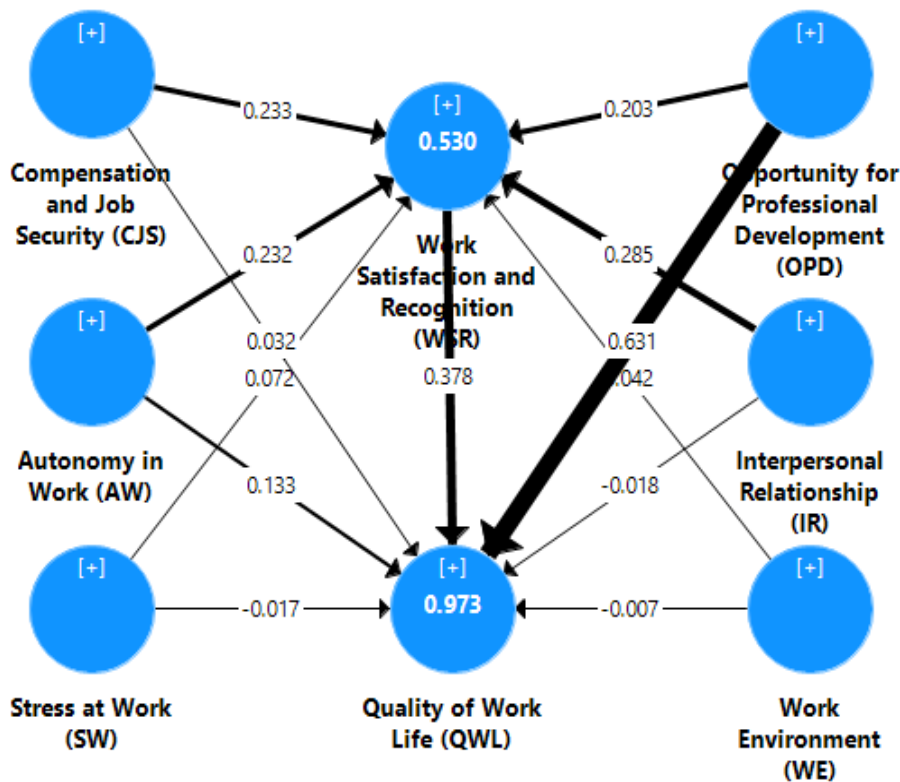

Fig.2: Relative Weight of Path Coefficients

The total effects of the paths where there is no significant coefficient values has been further analysed and the results are presented in table 8.

Table 8

Total effects and Path significance of QWL

Path Coefficients	B	σ	T	p
CJS → QWL	0.120	0.030	4.028***	0.000
Interpersonal Relationship (IR) → QWL	0.090	0.031	2.866**	0.004
Stress at Work (SW) → QWL	0.010	0.031	0.332	0.740
Work Environment (WE) → QWL	0.008	0.031	0.275	0.784

*** Significant at 0.001 level
** Significant at 0.01 level

The analysis of the total effects reveals that the path Interpersonal Relationship (IR) → QWL shows a significant total effects (t =2.866, p =0.004, significant at 0.01 level).

Discussions

The first hypothesis that autonomy in work (AW) has a significant positive impact on the quality of work life (QWL) of teachers. The result of the bootstrapping analysis reveals that autonomy in work has a significant effect on the quality of work of teachers working in higher education sector. Hence, this hypothesis has been accepted at 0.001 level (β = 0.133, t =7.022, p = 0.000).

The second hypothesis states that compensation and job security (CJS) has a significant positive impact on the quality of work life (QWL) of teachers. The path coefficient (β) for this path is 0.032, which is statistically significant at 0.05 level (t = 2.067, P = 0.039). The analysis of the total effect of the variable shows that the path is significant at 0.001 level (β = 0.120, t = 4.028, P = 0.000). It indicates that compensation and job security has a significant effect on the quality of work life of teachers. Hence the hypothesis has been accepted.

The third hypothesis states that the interpersonal relationship (IR) has a significant positive impact on the quality of work life (QWL) of teachers. The analysis of the path reveals that the direct effect of interpersonal relationship on the quality of work life of teachers is not significant (β = -0.018, t = 0.972, p = 0.331). The analysis of the total effect of the variable shows that the path is significant (β = 0.090, t = 2.866, p = 0.004). Hence the hypothesis has been accepted.

The fourth hypothesis is that the opportunity for professional development (OPD) has a significant positive impact on the quality of work life (QWL) of teachers. The analysis of the path reveals that the direct effect of OPD on QWL is statistically significant at 0.001 level (β = 0.631, t = 20.719, P = 0.000). So the hypothesis has been accepted.

The fifth hypothesis is that stress at work (SW) has a significant negative impact on the quality of work life (QWL) of teachers. The path coefficient (β) for the relation is -0.017, which is not significant (t =1.087, P = 0.278). The analysis of the total effect of this path also give a result which is not significant (β = 0.010, t = 0.332, P = 0.740). Hence, the hypothesis that stress at work (SW) has a significant negative impact on the quality of work life (QWL) of teachers has been rejected.

The sixth hypothesis is that work environment (WE) has a significant positive Impact on the quality of work life (QWL) of teachers. The result of the bootstrapping reveals that the relationship is not significant (β = -0.007, t = 0.403, P = 0.687). The analysis of the total effects also confirm the similar results (β = 0.008, t = 0.275, P = 0.784). Hence the hypothesis has been rejected.

The seventh hypothesis is that work satisfaction and recognition (WSR) has a significant positive impact on the quality of work life (QWL) of teachers. The result of the bootstrapping shows that the path is statistically significant at 0.001 level (β = 0.378, t = 14.201, P = 0.000). Hence the hypotheses that work satisfaction and recognition (WSR) has a significant positive impact on the quality of work life (QWL) of teachers has been accepted.

7. Conclusion

The study identified the various predictors of quality of work life of teachers working in higher education sector of Kerala. The impact of each factor on the QWL has been analysed and their significance has been examined. Autonomy in Work (AW), Compensation and job security (CJS), Opportunities for professional development (OPD), and Work Satisfaction and Recognition (WSR) are the significant predictors of quality of work life of teachers working in higher education sector of Kerala. The above findings are supported by many studies like Ellis and Pompli (2002), Hart (2011), Louis (1998) etc. Hence, these predictors has to be taken into account while framing policies and programme for the teachers of higher education sector in the state as it will determine the quality of work life and thereby the quality of higher education.

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