Business Sciences Review Vol. 20, N°01 Juin 2021, pp28-52
ISSN : 1112-3818 /EISSN : 2602-5396

THE IMPACT OF INFORMATION SHARING AND POWER SHARING ON EMPLOYEE INVOLVEMENT IN TOTAL QUALITY MANAGEMENT ERA CASE STUDY: CONDOR ELECTRONICS.ENGLISH

Aziza BENABBAS *
Bordj Bou Arréridj University, laboratories : LEZINRU BBA, ARUC Téluq Montreal, Algeria.
aziza.benabbas@univ-bba.dz

Abdelaziz BELAIDI
Professorat the Higher School of Commerce (ESC-Kolea), Algeria
belaidiaziz@yahoo.fr

Diane-Gabrielle TREMBLAY
Professorat Téluq University of Montreal, Canada.
diane-gabrielle.tremblay@teluq.ca

Received : 18/02/2021	*Accepted : 12/06/2021*	*Published : 03/07/2021*

Abstract:

(The main objective of this study is to show the impact of the practices of information and power sharing on the degree of employee's involvement in a total quality management context. For that, we have chosen the descriptive and analytical approach, and for collecting data we have used a questionnaire distributed on a sample of executives of the company in question, then we have analyzed the collected data, we have opted for modeling by structural equations and using partial least squares PLS method via Smart PLS software, to give us more reliable results in our case which is based on latent variables that are difficult to measure and with a small sample limited to 100 employees.

The results showed that the information and power sharing favor the employee's involvement, a positive impact was found between the information sharing and the affective, normative involvement of employees, on the other hand the power sharing negatively impacts the calculated (continuance) involvement of the executives of the company in question.

*** Author Corresponding**

Keywords: involvement, affective, continuance, normative, information sharing, power sharing, Total Quality Management.

Résumé :

Cette étude a pour objectif de montrer l'impact des pratiques du partage d'information et du pouvoir sur le degré d'implication des employés dans un contexte du management par la qualité totale. Pour cela, nous avons choisi l'approche descriptive et analytique, et nous avons utilisé pour la collecte des données un questionnaire distribué sur un échantillon des cadres de l'entreprise en question. Pour analyser les données collectées, nous avons opté pour la modélisation par les équations structurelles (la méthode des moindres carrés partiels PLS) en utilisant le logiciel Smart-Pls 3 afin de nous donner des résultats plus fiables dans notre cas qui est basée sur des variables latentes difficiles à mesurer et avec un petit échantillon limité à 100 employés.

Les résultats ont montré que le partage d'information et du pouvoir favorisent l'implication des employés, un impact positif a été trouvé entre le partage d'information et l'implication affective et normative des employés. Par contre, le partage du pouvoir impacte négativement l'implication calculée des cadres de l'entreprise en question.

Mots clés : implication, affective, calculée normative, partage d'information, partage du pouvoir, TQM.

1- Introduction:

Business world is changing rapidly. We see that companies are broadening their focus to include their employees, who eventually become their first customers.

"Employees First, Customers Second," a quote that has changed the rules of traditional management, a phrase proposed by Vineet Nayar, the ExChief Executive Officer of HCL Technologies, one of the world's largest information technology services companies, Vineet announced in February 2006 a radical new strategy to create a single organization of employees, to manage an inverted organizational structure promote transparency, responsibility and valued corporate culture. As a result of this philosophy, HCLT almost tripled its turnover by 4.2 billion in a 4year(Vineet Nayar, 2010).Nayar was nominated the best employer in Asia and became a role model at Harvard Business School.

His philosophy has turned the organizational pyramid upside down, encouraging employees, those who create value, to be the focus of the company. Nayar, to transform the HCLT, He worked mainly on the following components (Vineet Nayar, 2010):

- Creating the need for change;
- Creating a culture of change within the company centered on mutual trust between managers and employees;
- Redefining the leadership role by sharing power in the company;
- Increased transparency and information sharing.

Edward E. Lawler, on the other hand, addressed the practices of involvement in his work (1992, 1995, 1996), in which, he identified four practices: information sharing, knowledge, training, powersharing, and rewards. For this, we tried to propose a model inspired by Lawler's work. (1992, 1995, 1996).

2- Literature review:

Employees are the essence of the organization (Duck 2009, p.139). Duck highlighted the importance of employees and stated that their full involvement allows them to use their skills for the benefit of the organization.

So, what is involvement and what are its dimensions?

2-1. Definitions of employee involvemen:

Many definitions have been proposed by researchers, including that of Peter Grazier who describes the concept as follows:"It is the way in which employees, regardless of their hierarchical level in the organization, participate in steering and decision-making processes, such that many decisions can be made in a better way when the participation of those concerned and affected by the decision is sought. " (Goetsch D.L., Davis S.B.,2000).

Chaminade (2005, p.75) describes the involvement as an employee’s attitude and the psychic state towards his organization as a professional environment. So the involvement is the result of the impact that the

professional role generates in the estimation and self-development of an employee (M.Crosier, E. Feidberg, 2014, p.99).
In another definition proposed by Lawler et al., considering employee involvement as a measure of the extent to which employees, in the performance of their work, feel control, receive information, and be rewarded for the performance achieved individually or collectively in the organization (Lawler. E et al, 1992, p. 2). We can conclude from this definition the importance of information sharing and the reward system in creating and strengthening the sense of involvement and belonging among staff.

Employee involvement is a process by which members of the organization make decisions and resolve appropriate issues at the higher levels of the organization.
The logic is that people closest to a problem or opportunity are best placed to make decisions for improvement if they own the improvement process.

ISO10018 (2012, p.2) defined the concept of involvement as: "commitment to the organization and contribution to shared objectives." This commitment is moral before being expressed in a contract of employment, so it means the attachment of the individual to his work to achieve an objective.
According to Kanter (1968), calculated involvement appears when there is a profit to be gained from staying in the organization, and a cost associated with leaving. Noah (2008, p.31) defined employee involvement or participation as a special form of delegation in which subordinates gain more control and freedom to choose concerning closing the communication gap between management and employees.

Involvement is conceived as a process of developing a psychological feeling among the members of the organization and has been implemented through the participation of employees in the process of information, decision-making, and/or problem-solving (W. Kearney, 1997, p. 71).
According to Lawler (1996), employee involvement exists when employees in the company have the power to act and make decisions, the information and knowledge necessary to use their power effectively, and

are rewarded for doing so. Mowday et al defined organizational involvement as: "the relative strength of an individual's identification and participation in a particular organization" (Mowday et al., 1979, P.226).

The model of Meyer and Allen's three-dimensional involvement (1997, P.93) envisages organizational involvement as a " psychological state with an emotional dimension, a calculated dimension, and a normative dimension, and having an influence on the decision to remain a member of the organization." Allen and Meyer (1990, 1991) view organizational involvement as a psychological condition that characterizes an employee's relationship with a particular organization and impacts his or her work behavior.

They include three components: affective, continuous, and normative. They recapitulate this in the form of a model said (TCM: Three-Component Model) (Allen and Meyer, 1997, P.93).
According to this model, affective involvement refers to the employee's emotional attachment, affiliation, and participation in the company, and he has a strong desire to remain in the position and in the company. Employee with a high level of emotional involvement continue to work for the company because they want to do it. While calculated or continuous involvement refers to the expenses and costs associated with leaving the company.As employees who demonstrate the need to work, they have a high degree of continuous involvement, but, employees who have a high degree of normative involvement believe that they should continue to work with the organization. (Mayer et al., 1991, 1993).

2-2. Information sharing:

Communication is defined as the exchange of information between two or more persons or groups and the understanding of that shared information. There's no communication without feedback from the receiver, so we focus on understanding of the shared information by the recipient, to give us a feedback. (Ross E.J et al., 1999, P.48).

Subburaj Ramasamy (2012) stressed the importance of the role of seniors in communicating with juniors, considering that it is their responsibility

to inform them and align them with the vision, mission and quality policy of the company.

Information sharing involves the transmission of strategic information from the top to down in the hierarchy, but also from the bottom up. It is seen as the basis for employee engagement and mobilization. We find that the employee can become involved to the extent that he understands what is expected of him (Lawler et al., 1992; Rondeau et al., 1993).

As Randolph (1995, P.22) pointed out, "without information, people cannot act responsibly, informed, they are almost obliged to act responsibly".

According to Christine M. et al (2005), information sharing exists when employees perceive that information about the company, its objectives and plans is shared with them.

2-3. Power sharing/ Empowerment:

Empowerment or the power sharing is not just "empowering people to make decisions." Says Randolph (1995, p. 20). They already have the power to make smart decisions to help the company operate more efficiently. At their most practical level, empowerment consists in recognizing and releasing in the organization the power that people already have in their wealth of useful knowledge and internal motivation. Conger and Kanungo (1988, P. 474) conceptualized empowerment as psychological empowerment. They defined it as "a process of improving feelings of self-efficacy among the members of the company by identifying the conditions that promote impotence and by eliminating them through formal organizational practices and informal techniques in order to have effective information."
Londres (1993, p. 57) confirmed that empowerment was "to ensure that the employee has the power to do his job."

This is the traditional approach to empowerment, and it focuses on the actions of those who have the power and transfer some of their power to the less powerful.

According to Burke (1986, p. 69), leaders give power to their subordinates, providing them with a clear direction: "... But not just any orientation, but an orientation that encompasses a higher-end, a worthy

reason, an idea, and will require a collective and concerted effort." Burke also suggested stimulating employees with intellectually exciting ideas and encouraging them to take on difficult challenges, such as empowerment strategies**.**

2-4. Power sharing/ Empowerment:

Involvement practices are classified according to several authors, as Cotton et al. (1988) identified five constructs of participation, which is based on the typology proposed by Dachler and Wilpert (1978) and Locke and Schweiger (1979). The most important combinations of the five built are: Participation in decision-making, advisory participation, informal participation, representative participation, short-term participation, and employee ownership.

Claude Lévy-Leboyer (2001) refers to the notion of the four "C" to guarantee the motivation and involvement of the staff. Among the C's mentioned are: Control and autonomy which intensifies the involvement with the organization, giving it more autonomy to organize its work and to make certain decisions which affect it; communication, by putting the individual in a position of the actor by providing him with information on the objectives expected, the performances carried out and their evolutions, and even on the positions of his results with those achieved by others, we give each individual the means to situate the results of his efforts, to evaluate his chances of improving them. This promotes his initiative mind.

Wilkinson et al (1998, P.49) mentioned in their article that Lawler believes that three interrelated practices are essential: delegation of authority, training, and interpersonal communication between the different levels, to ensure better employee involvement.

Field studies have also found a positive relationship between participation in decision-making (Fiorito et al., 1997; Rodwell et al; 1998), self-employment in the workplace (Cohen et al. Dillon & Flood, 1992), and organizational commitment. The relationship between "accountability" practices and behaviors has received considerably less attention in the literature. Tremblay and his collaborators (1998), as well as Igalens and Barraud (1997), were able to highlight the existence of a significant positive relationship between the presence of relatively

autonomous working groups, the mechanisms of direct expression, and the level of mobilization in organizations. processes are disseminated at lower levels of the organization and the quality of their implementation would have a decisive effect on the level of success of the involvement. Narendar Sumukadas in his article (2006, p.145) defended Lawler's classification, among its supporting documents, that it is compatible with theoretical typologies, in particular the practices identified as higher level, called by, Power Sharing, which is long-term and involves direct participation and allows easy access. He added that classification is not limited to participation in decision-making, but includes the ordinal limits for involvement practices in the context of quality management. Lawler et al's work was itself conducted in a total quality management context.

However, there appears to be a relatively consistent relationship between communication and organizational engagement (Rodwell et al. 1998; Dillon & Flood, 1992; Caldwell et al., 1990). Information sharing would contribute to the emergence of a climate of trust and mutual respect that could foster emotional attachment. A research carried out by Igalens and Barraud (1997) with some hundred companies in France also highlighted the central role of information sharing practices in the mobilization of employees. Another research carried out in another cultural context with 325 Quebec organizations by Tremblay et al. (1998) found a significant relationship between certain information practices and employee mobilization.

3- Hypothesis and research methodology:

To provide answers to our research question, we have chosen the descriptive-analytical approach that is most useful in understanding the nature of the relationship between our study variables, and we have worked on a sample of executives from a national company in the household appliance, electronics and computer industry "CONDOR ELECTRONICS". As one of the leaders of the local market of High Tech and household electronics and which received the Algerian Quality Award in 2011, this Quality Award is intended to reward annually Algerian companies, certified according to international standards, for their efforts in terms of quality improvement and development. The

evaluation is based on a benchmark that is unexpected from the European model of excellence EFQM (European Foundation for Quality Management), allowing to assess the value of the progress made by companies in the field of quality management, through an audit of the company's activities and its managerial functions, in particular leadership, strategy and quality objectives, management of staff, resources and processes, satisfaction of clients and staff, integration into the life of the company community and organizational outcomes.

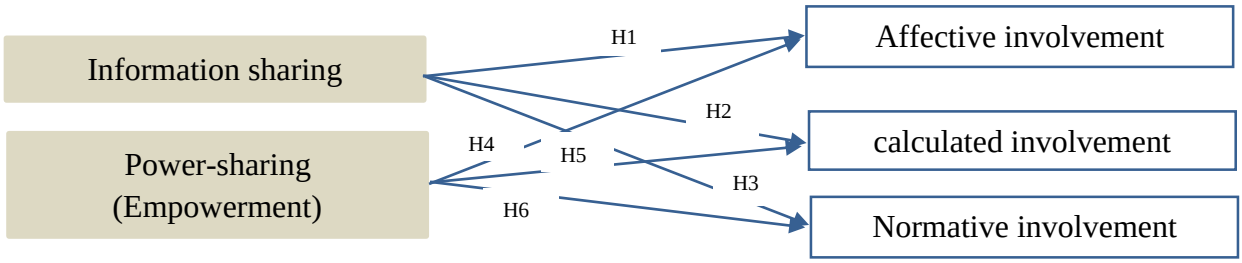
To study the relationship between independent variables and dependent variables, we opted for structural equation modeling using Smart-Plus 3, to give us more reliable results in our case of latent variables that are difficult to measure and with a sample limited to 100 employees.

The data were collected using a structured questionnaire from a population of executives of the company in question.

To determine the sample size, we chose a strata sampling method such that (number of executives compared to the overall number of employees * number of executives) the current number of executives is 833, so the sample is 111 employees, 100 respondents agreed to complete the questionnaire. Among the main characteristics of the respondents, 59.02% are male, 68.75% are under 30 years of age, 75% say they have at least 5 years of experience, and half of the executives asked would have gone to higher education. The questionnaire used is divided into six main axes: the first three axes dealing with variables: emotional, calculated, and normative involvement. They represent the dependent variables to be studied in our model. The questions about involvement are inspired by Meyer's Scale, Allen, Smith (1993) and adapted to our study context. As we have expressed emotional involvement in six items (e.g: You willingly decided to continue working in this company.), while the involvement calculated in four items(e.g: One of the reasons for staying at this company is the lack of opportunities elsewhere (opportunities for changing); and finally, the normative implication expressed in five items (e.g: you feel no obligation to stay in this company.)The fourth axis deals with the power-sharing variable in seven items and the fifth axis with the information-sharing variable in nine

items. The last axis of our questionnaire concerns the personal data of the respondents. To measure these variables, we used a Likert scale with five modalities varying from not agreeing at all (1) to completely agreeing (5). From the theoretical basis presented above, we will opt for this model which, summarizes the relationships between the study variables:

Figure 01: The Conceptual Model - Correlation Assumptions:



To answer our problem in advance: To what extent do information sharing and power-sharing promote the degree of employee involvement in the total quality management context? We felt it necessary to propose these hypotheses:

H01: information sharing positively impacts the emotional involvement of employees;

H02: information sharing has a negative impact on calculated involvement;

H03: information sharing has a positive impact on normative involvement;

H04: power-sharing positively impacts emotional involvement;

H05: power-sharing negatively impacts calculated involvement;

H06: power-sharing positively impacts normative involvement.

4- Presentation of results:

To confirm or disprove our hypotheses, we followed the modeling by partial equations. This method is considered among the best methods for estimating causal linear models between internal and external latent variables. The use of this statistical method should require a series of conditions summarized by the steps of the evaluation of the general research model.

4-1. Subtitle 1: Evaluation of the study model:

The evaluation of our study model is done in three essential steps: the first is the measurement model, i.e. the assessment of the relationship between the constructs and its measurements; the second step is used to evaluate the relationship between the constructs that make up our model, and the third step is to assess the predictive quality of the model.

4-1-1. Evaluation of the measurement model:

4-1-1.1. Internal reliability (outer loadings):

Table 01: Internal reliability (outer loadings):

Latent variable	*Item*	*outer loadings*	*Latent variable*	*Item*	*outer loadings*
Calculated involvement	IMC_1	0.767	Power-sharing	PP_1	-0.308
	IMC_2	0.772		PP_2	-0.706
	IMC_3	0.849		PP_3	0.822
	IMC_4	0.767		PP_4	-0.141
Affective involvement	IMA_1	0.879		PP_5	0.834
	IMA_2	0.889		PP_6	0.797
	IMA_3	-0.083		PP_7	0.274
	IMA_4	0.877		PP_8	0.482
	IMA_5	0.899		PP_9	0.776
	IMA_6	0.885		PP_10	0.822
Normative involvement	IMN_1	-0.420	Information sharing	PI_1	0.678
	IMN_2	0.646		PI_2	0.753
	IMN_3	0.857		PI_3	0.809
	IMN_4	0.883		PI_4	0.060
	IMN_5	0.849		PI_5	0.288
				PI_6	0.891
				PI_7	0.725
				PI_8	0.485
				PI_9	0.877

Source: Smart-Plus output.

According to Fabrigar and Wegener (2012), who discussed the minimum value required for outer loadings of measurements of the latent variable corresponding to the sample size taken in the study (in our case, the sample taken is 100 individuals.) to have good estimates with this size, the load factors must be greater than or equal to 0.70.

Based on the results mentioned in the table above, we find that the following measures: IMA_3, IMN_1, IMN_2, PP_1, PP_2, PP_4, PP_7,

PP_8, PI_1, PI_4, PI_5, PI_8, their outer loadings are lower than 0.7, which obliged us to remove these measures and repeat the test again.

Table n°02: Internal reliability (outer loadings):

Latent variable	*Item*	*Outer loadings*	*Variable latente*	*Item*	*Outer loadings*
Calculated involvement	IMC_1	0.788	Power-sharing	PP_3	0.786
	IMC_2	0.804		PP_5	0.841
	IMC_3	0.850		PP_6	0.788
	IMC_4	0.731		PP_9	0.833
Affective involvement	IMA_1	0.886		PP_10	0.855
	IMA_2	0.893	Information sharing	PI_2	0.805
	IMA_4	0.879		PI_3	0.856
	IMA_5	0.906		PI_6	0.896
	IMA_6	0.879		PI_7	0.708
Normative involvement	IMN_3	0.893		PI_9	0.879
	IMN_4	0.906			
	IMN_5	0.874			

Source : Smart-Plus output.

4-1-1.2. Construct reliability and validity:

Table n°03: Construct reliability and validity:

Latent variable	*Cronbach's Alpha*	*Rho_A*	*Composite reliability*	*AVE*
Affective involvement	0.933	0.937	0.949	0.790
Calculated involvement	0.808	0.816	0.872	0.631
Normative involvement	0.870	0.876	0.920	0.793
Information sharing	0.887	0.902	0.918	0.692
Power Sharing	0.879	0.880	0.912	0.674

Source : Smart-Plus output.

- **Cronbach's Alpha:** The traditional criterion for internal reliability is Alpha Cronbach, which provides us with an estimate of reliability, based on the intercorrelations of observed variable indicators (Hair et al. 2016).

  Alpha Cronbach assumes that all indicators are reliable at the same time (i.e. all indicators have outer loading equal to the block). But PLS-SEM prioritizes indicators according to their individual

reliability. The above table shows that the values of Alpha Cronbach for latent variables (Affective involvement, normative involvement, calculated involvement, information sharing and power-sharing) are statistically significant and acceptable, as their values are greater than 0.70 (Hulland, 1999), which corresponds with the composite reliability

- **Rho by Dillon Goldstein factor:**
  Internal reliability was measured by composite reliability also known as Rho by Dillon Goldstein or Jöreskog, proposed by (Chin, 1998). Rho is better than alpha Cronbach in modeling structural equations because it is based on loadings rather than observed correlations between the variables studied. Chin (1998) recommends that acceptable scores should be greater than 0.70; Our results were very satisfactory ranging from 0.816 to 0.937 for all our latent variables.
- **Composite reliability (CR):** Given the limits of Cronbach's Alpha in measuring the reliability of internal coherence, it is more appropriate to use another measure of reliability which is composite reliability (CR: Composite reliability).
  This measure takes into account the different external loads of the variable's indicators. Its value is between 0 and 1, as the highest values indicate higher levels of reliability (Hair et al. 2016).
  We note that all the CR coefficients are statistically significant and acceptable, as they are greater than 0.70 according to (Hulland, 1999), which means coherence between the study indicators in their measurement of latent variables, we deduce the reliability of our measurement model used.
- **Average Variance Extracted AVE**: The AVE value greater than or equal to 0.50 indicates that the construct interprets in the average more than half (50%) of the variance of its indicators (M. Sarstedt et al. 2017). We note that all AVE values are statistically significant and acceptable because they are greater than 0.50 (Fornell and Lacker's, 1981), which means that each latent variable accounts for more than half of the variances in its indicators, and therefore the reliability of convergence has been achieved in this model.

4-1-1.3. Discriminatory validity:

This is a measure of the extent to which a construct is truly distinct from other constructs. Thus, the degree to which a construct is correlated with others and the extent to which the indicators represent only one construct in the study model (Bagozzi et al., 1982).

- **Fornell-Larcker test:** The discriminant validity is based on the comparison between the square root values of the average variances extracted for each construct (√ AVE) and the values of the correlations of that construct with the other constructs of the model (Hair et al, 2016). The test results are presented in the following table:

Table 04: the discriminant validity test of Fornell-Larcker:

	IMA	*IMC*	*IMN*	*Information sharing*	*Power-sharing*
IMA	0.889				
IMC	-0.236	0.794			
IMN	0.819	-0.325	0.891		
Information sharing	0.749	-0.346	0.747	0.832	
Power-sharing	0.679	-0.404	0.658	0.821	0.831

Source : Smart-Plus output.

Based on the values presented in the table, we find that each constructs' √AVE value is greater than all its correlation values with the other constructs in our model. This explains the independence of the indicators between them, and the lack of redundancy of the measures, so we confirm the reliability of our measurement model.

- **Cross Loading**: Another discriminating validity test for block mode can be obtained by calculating the correlations between the scores of the components (indicators) of the latent variables and other indicators in addition to its own block. If an indicator loads higher with other latent variables than the one it is supposed to measure, we should expect each indicator block to load higher for its respective latent variable than the indicators for other latent variables indicators (Chin, 1998).

The following table presents the results of our research:

Table n°05 : Cross Loading :

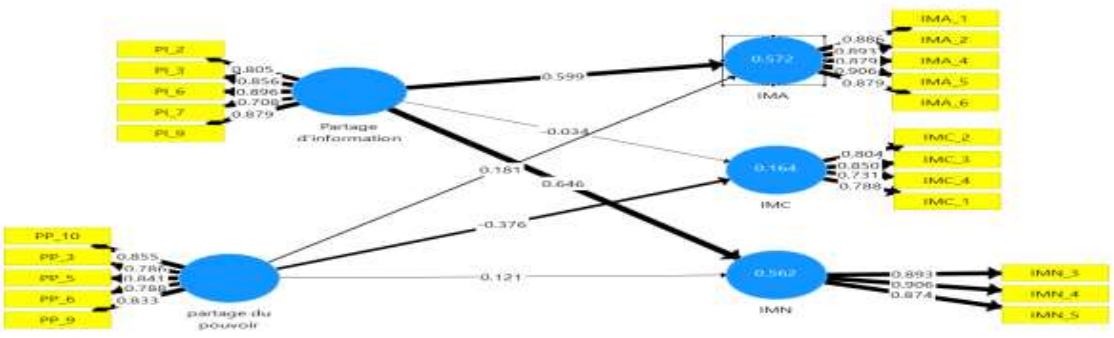
Item	*IMA*	*IMC*	*IMN*	*Information sharing*	*Power sharing*
IMA_1	0.886	-0.194	0.703	0.630	0.597

IMA_2	0.893	-0.199	0.703	0.635	0.651
IMA_4	0.879	-0.180	0.660	0.611	0.503
IMA_5	0.906	-0.227	0.796	0.757	0.610
IMA_6	0.879	-0.244	0.763	0.681	0.643
IMC_1	0.061	0.788	-0.023	-0.205	-0.233
IMC_2	-0.003	0.804	-0.135	-0.255	-0.334
IMC_3	-0.236	0.850	-0.303	-0.235	-0.268
IMC_4	-0.454	0.731	-0.466	-0.353	-0.390
IMN_3	0.768	-0.309	0.893	0.610	0.586
IMN_4	0.750	-0.317	0.906	0.721	0.686
IMN_5	0.671	-0.241	0.874	0.656	0.505
PI_2	0.709	-0.228	0.616	0.805	0.618
PI_3	0.603	-0.320	0.616	0.856	0.740
PI_6	0.639	-0.352	0.678	0.896	0.768
PI_7	0.365	-0.309	0.459	0.708	0.568
PI_9	0.729	-0.252	0.700	0.879	0.742
PP_10	0.507	-0.391	0.555	0.692	0.855
PP_3	0.495	-0.370	0.495	0.651	0.786
PP_5	0.536	-0.350	0.521	0.695	0.841
PP_6	0.646	-0.204	0.582	0.686	0.788
PP_9	0.592	-0.351	0.543	0.684	0.833

Source : Smart-Plus output.

After our confirmation of the fit quality of the measurement model, we can use the following model in our study.

Figure n°02 : The structural model of our study::



Source: developed by us using the Smart-Plus.

4-1-2. Evaluation of the structural model:

4-1-2.1. Multiple regression coefficients (Path coefficients):

Path coefficients are the regression factors in multiple regressions that relate some latent variables to others (Tenenhaus.M et al., 2005). The

values of these coefficients range from -1 to +1. Estimated values close to 1 mean strong positive correlation (vice versa for negative values). Estimated values near zero mean low correlations. The relationship is statistically significant when the error rate (P-value) is less than 5% (Hair et al. 2016).

Table 06: Path coefficients and hypothesis test

	Original Sample (O)	*SampleMean (M)*	*Standrad Deviation (STDEV)*	*T Statistics (O/STDEV)*	*P Values*	*Decision*
Information sharingAffective involvement ➡	0.599	0.612	0.165	3.641	0.000	Significant
Information sharing Calculated involvement ➡	-0.034	-0.023	0.152	0.224	0.823	Not Significant
Information sharing Normative involvement ➡	0.646	0.649	0.125	5.188	0.000	Significant
Power- sharing Affective involvement ➡	0.181	0.172	0.169	1.068	0.286	Not Significant
Power-sharing Calculated involvement ➡	-0.376	-0.400	0.132	2.849	0.005	Significant
Power-sharingNormative involvement ➡	0.121	0.123	0.115	1.056	0.291	Not Significant

Source : données sortantes du Smart-Pls.

Based on the data presented in the table above, we conclude that:

- There is a positive and statistically significant relationship between information sharing and affective involvement on the one hand, and between information sharing and normative involvement on the other.
- There is no statistically significant relationship between information sharing and calculated involvement, power sharing and affective involvement, and ultimately between power sharing and normative involvement.
- There is a negative and statistically significant relationship between power sharing and calculated involvement within the company.

Finally, we can answer our research hypotheses:

The information sharing at the SPA CONDOR ELECTRONICS positively impacts the affective and normative involvement of its employees, which confirms hypotheses 1, 3 of our study.
On the other hand, power sharing has a negative impact on the calculated involvement of CONDOR ELECTRONICS employees, which confirms hypothesis 5.

4-1-2.2. The coefficient of determination R-square:

A measure of the variance proportion of an endogenous construct that is explained by its predictor constructs (Hair et al. 2016). According to (Chin, 1998), which determines the strength of impact indicator by R^2 (low, medium, strong): R^2 greater than 0.67 (high impact), between 0.33 and 0.67 (medium impact) less than 0.33 (low impact), according to (Hair et al, 2010) and (Falk.R, Miller.N, 1992), we accept the R^2 value when it is greater than 0.10.

Table 07: The coefficient of determination (R-square, R^2):

	R Square	*R Square Adjusted*	*Explanation Rate*
Affective involvement	0.572	0.563	Medium
Calculated involvement	0.164	0.147	Low
Normative involvement	0.562	0.553	Medium

Source: Smart-Plus output

Based on the results of the above table:
We note that the R^2 values of the both latent variables (affective involvement, normative involvement) are significant and statistically acceptable, as we found that the interpretation of the both variables is acceptable (affective involvement= 0.572, Normative involvement= 0.562) but the value of the calculated involvement is low according to (Hair et al, 2010) and (Falk & Miller, 1992).

4-1-2.3. **F-square:** According to Cohen (1988), the assessment of f^2 is as follows:

・$F^2 \geq 0.35$ The impact is strong

- $0.15 \leq F^2 < 0.35$ Average impact
- $0.02 \leq F^2 < 0.15$ impact is low
- $F^2 < 0.02$ No impact

Table 08: The F-Square coefficient:

	IMA	*IMC*	*IMN*
Information sharing	0.260	0.000	0.296
Impact	Medium	No impact	Strong
Power-sharing	0.024	0.052	0.010
Impact	Low	Low	No impact

Source: made by ourselves using data from Smart-Pls.

We notice:

- the impact of information sharing on normative involvement is strong;
- The impact of information sharing on affective involvement is moderate;
- The power-sharing impact on affective and calculated involvement is minor.
- No impact of information sharing on calculated involvement and power-sharing on the normative involvement of CONDOR ELECTRONICS employees.

4-1-3. Model Quality Indicators:

4-1-3.1. Q^2prediction quality: We used the Q^2 value as an index of the predictive capacity of the model based on Geisser (1974) and Stone (1974).

Table 09 : Q2 Prediction Quality

Latent variable	*Q^2 (= 1-SSE/BSP)*
Affective involvement	0.438
Calculated involvement	0.086
normative involvement	0.432

Source: Smart-Plus output

We observe that all Q2 values are significant and statistically acceptable (Q^2 › 0), which means that the latent variables in our model have the predictive capacity (Hair et al., 2016).

4-1-3.2. The GOF (Goodness-of-fit index) adjustment quality**:** The GOF represents an operational solution to this problem as it can be considered an index to validate the PLS model globally (Tenenhaus, 2005, 173).

Table 10: The R2 and AVE values of dependent latent variables:

Latent variable	R^2	*AVE*
Affective involvement	0.572	0.790
Calculated involvement	0.164	0.631
Normative involvement	0.562	0.793
	R2= 0.433	AVE= 0.738

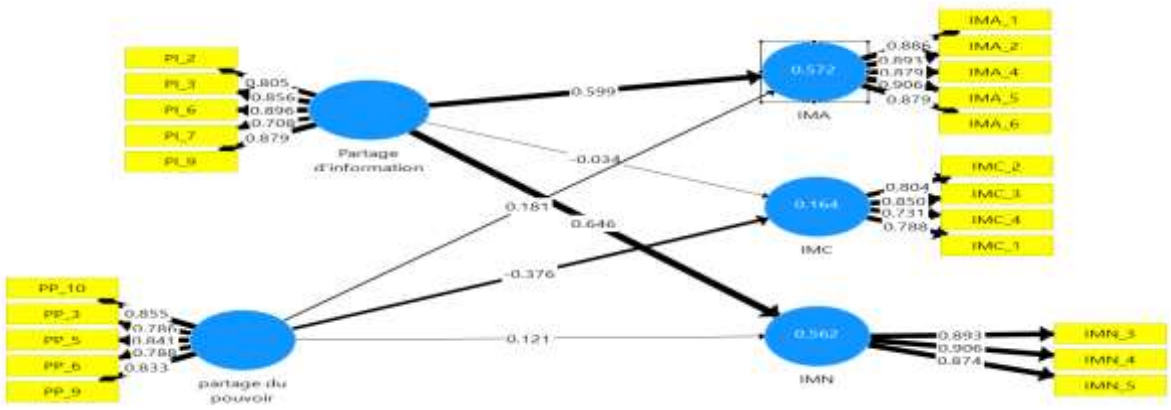
$GOF = \sqrt{R^2 * AVE} = 0.565$

Source: developed by ourselves using data from Smart-Pls.

Our GOF indicator is equal to 0.565 according to (Wetzels & van, 2009, P.187) this value is considered as average which means that the quality of fit of our model of study is good.

Finally, the model of study obtained:

Figure 03: The final model:



Source: developed by ourselves using Smart-Pls**.**

5- Results and discussion:

In order to analyze the impact of the practices of information sharing and power-sharing on the degree of employee involvement in its different

dimensions (affective, calculated, and normative) in companies in a total quality management context,we carried out this study in an Algerian industrial company in the field of electrical appliances and electronics. To achieve our research objectives, we adopted a statistical model in which, we established organized and well-oriented trajectories between our study variables.

The model evaluation showed different correlations between our variables and the results confirm this:

- The positive impact of information sharing on the affective and normative employee involvement in accordance with studies by (Lawler et al. (1992), (1995), Caldwell et al. (1990), Dillon & Flood (1992), Wilkinson et al. (1998), Rodwell et al. 1998), Igalens and Barraud (1997), Tremblay et al (1998) and Narendar Sumukadas (2006).

- The existence of a negative relationship between information sharing and calculated involvement, but the latter is not significant to the 95% confidence interval (p=0.823 which is greater than 0.05);

- Power-sharing negatively impacts the calculated involvement of employees, which refers to the expenses and costs associated with leaving the company, so employees stay in their companies because they need to do, according to Allen et al (1990, P.3). As we found from CONDOR's data analysis, employees, when they freely make decisions at their own level, are encouraged to participate in the decision-making process. Thus, when they feel a certain trust and responsibility granted by their hierarchy,they do not think about leaving the company, but they see that staying in is in their interest and not because of the lack of opportunities elsewhere.

- We found a positive and non-significant relationship between power-sharing and affective and normative involvement in our study, contrary to what is shown by the researchers (Fiorito et al (1997), Rodwell et al (1998), Cohen et al (1996), Dillon & Flood (1992)) who demonstrated the existence of a positive and significant relationship between power-sharing and employee involvement. Tremblay and his collaborators (1998), and even Igalens and Barraud (1997) were able to highlight the existence of a significant positive

relationship between the presence of relatively autonomous working groups, the mechanisms of direct expression and the level of mobilization in organizations.

6- Conclusion:

We've tried in our work to illustrate the concept of employee involvement through different perspectives from researchers and practitioners on the one hand. And on the other hand, we've well studied the factors that affect this variable in two main models, Lawler (1992, 1996) and Vineet Nayar (2010) So we concluded that information sharing positively impacts the degree of employee involvement (normative and emotional involvement) and negatively impacts calculated involvement, i.e. the more information is shared in the company the less staff thought about leaving the company.

And so for power-sharing negatively impacts calculated involvement. We have limited ourselves in our study on two variables, but we could broaden our scope by adding the variables: training and reward for a larger sample size.

Bibliography:

1. Allen N.J., Meyer J.P., *The measurement and antecedent of affective, continuance, and normative commitment to the organization*, Journal of Occupational Psychology, (63),1990,PP.1-18.
2. Bagozzi, R. P., Phillips, L. W., *Representing and testingorganizationaltheories:aholisticconstrual*. Administrative Science Quarterly, 27(3),1982.
3. Burke, W.W., *Leadership as empoweringothers*, In S. Srivastva Ed, Executive power, San Francisco:Jossey-Bass,1986,PP.51-77.
4. Caldwell, D., Chatmen, J., O'Reilly, C., "*Building Organizational Commitment: A Multifirm Study"*, Journal of Occupational Psychology,1990, PP. 245-261.
5. CANARD, F., *Management de la Qualité*, Lextenso éditions,2009.
6. Chaminade, B., *Ressources humaines et compétences dans une démarche qualité*, AFNOR, Saint Denis Laplaine, 2005.

7. Chin, W. W., *The partial least squares approach for structural equation modeling, Modern methods for business research* , Ed In G. A. Marcoulides,1998,PP.295-336.
8. Cohen, J., *Statistical power analysis for the behavioral sciences*, 2nd Ed. Lawrence Earlbaum Associates, 1988.
9. Cohens, L., Ledford, G., *Spreitzer, G. A Predictive model of Self-Managing Work Team Effectiveness*, Human Relations, 49, 5, 1996,PP.644-674.
10. Conger, J.A., Kanungo, R.N., "*The empowermentprocess:Integratingtheory and practice"*, Academy of Management Review, 13,1988,PP.471-482.
11. Cotton, J.L., *Employee Involvement: Methods for Improving Performance and Work attitudes*, SAGE Publications,1993.
12. Crosier, M., &Feidberg, E., *L'acteur et le système : les contraintes de l'action collective*, Edition seuil, 2014.
13. Dachler.P. H., Wilpert. *B, Conceptual Dimensions and Boundaries of Participation in Organizations : A Critical Evaluation*, Administrative Science Quarterly, 23(1), Mars 1978,PP.1-39.
14. Dillon, A., Flood, P., *Organizational Commitment: Do Human Resource Management Practices Make a Difference*, Irish Business and Administration Research, 13,1992, PP.48-60.
15. Fabrigar.L, Wegener.D. *Exploratory factor analysis, Understanding Statistics*, Oxford University Press, 2012.
16. Falk, F., Miller, N., *A Primer for Soft Modeling*, The University of Arkon Press, 1992.
17. Fiorito, J., Bozeman, D., Young, A., *Organizational Commitment: Human Resource Policies and Organizational Characteristics*, College of Business, Florida State University, 1997.
18. Fornell.C., Larcker.D.F., "*Evaluating Structural Equation Models with Unobservable Variables and Measurement Error"*, Journal of Marketing Research, 18(1),1981,PP.39-50.
19. Geisser, S., *A predictive approach to the random effect model*, Biometrika, 61(1), 1974,PP.101-107.
20. Goetsch, D.L., & Davis, S.B., *Quality management introduction to total quality management for production, processing, and services* (3th Ed). Prentice-Hall, INC.2000.
21. Hair, J. F. J., Hult, G. T. M, Ringle, C., &Sarstedt, M., *A Primer on Partial Least Squares Structural Equation Modeling* (PLS-SEM), 2nd Ed. SAGE Publications, 2016.

22. Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., *Multivariate Data Analysis*, 7th Ed, Pearson Ed, 2010.
23. Hulland. J., "Use *of partial least squares (pls) in strategic management research* : *a review of four recent studies*", Strategic Management Journal, 20, 1999,PP.195-204.
24. Igalens, J., Barraud, V., *Grappes de Pratiques de Ressources Humaines et Mobilisation*, GRH face à la crise, GRH en crise? M. Tremblay & B. Sire,eds, Presses HEC, 1997, PP.227-242.
25. ISO 10018 :*Management de la qualité — Lignes directrices pour l'implication et les compétences du personne*l, 1ère Ed ,ISO, 2012.
26. Kanter, R.M., "*Commitment ans social organization : A study of commitment mechanisms in Utopian communities"*, American Sociological review, (33), 1968.
27. Kearney. W. A, "*proven receipt for success: The sevenelements of world class manufacturing*", National Productivity Review, 16(4), 1997.
28. Lawler EE. *From the ground up : six principles for building the new logic corporation*, 1st Ed. Jossey-Bass Publishers, 1996.
29. Lawler, E.E ., Susan Albers Mohrman, et al. Creating High Performace Organizations: Survey of Practices and Results of Employee Involvement and TQM in Fortune 1000 Companies, Jossey Bass Business & Management Series, 2nd Ed ,1995.
30. Lawler, E.E. et al. Employee Involvement in Total Quality Management: Practices and Results in Fortune 1000 Companies, Jossey-Bass,San Francisco, 1992.
31. Lévy-Leboyer. C. *La motivation dans l'entreprise : modèles et stratégies*. Éditions d'organisation, 2000.
32. London, M., "*Relationships between career motivation, empowerment and support for career development"*, Journal of Occupational and Organizational Psychology, 66,1993,PP.55-69.
33. Meyer J.P, Allen N.J., *Commitment in the Workplace: Theory*, Research, and Application, SAGE Publications, 1997.
34. Meyer J.P., Allen N.J., "*A three-component conceptualization of organizational commitment"*, Human Resource Management Review, 1(1),1991,PP.61-89.
35. Meyer J.P., Allen N.J., & Smith C.A. "*Commitment to Organizations and Occupations : Extension and Test of a Three-Component*

Conceptualization", Journal of Applied Psychology, 78(4),1993,PP.538-551.

36. Mowday R. T,.Steers R. M,.& Porter L. W., "*The measurement of organizational commitment*" Journal of Vocational Behavior, (14), 1979, PP.224-247.
37. NarendarSumukadas. "*Employee involvement: A hierarchical conceptualisation of its effect on quality"*, International Journal of Quality & Reliability Management, 23 (2), 2006.
38. Nayar, Vineet. "*Employees First, Customers Second: Turning Conventional Management Upside Down"*, Harvard Business Press, 2010.
39. Noah Yusuf., "*A Study of Worker Participation in Management Decision Making Within Selected Establishments in Lagos"*, Journal of Social Sciences, Nigeria, 17(1),2008. 31-39.
40. Randolph, W. A., *Navigating the journey to empowerment*. Organizational Dynamics, 23(4), 1995,PP.19–32.
41. Riordan, C.M., Vandenberg, R. J., & Richardson, H.A., *Employee involvement climate and organizational effectiveness*, Human Resource Management, 44(4), Winter 2005, PP.471–488.
42. Rodwell J., Kienzle R., Shadur M., *The Relationship Away Work-Related Perceptions, Employee Attitudes, and Employee Performance: The Integral Role of Communication*, Human Resource Management, 37,1998,PP.277-293.
43. Rondeau, A., Lemelin, M., & Lauzon, N., *Les pratiques de mobilisation : vers une typologie d'activités favorisant l'implication au travail et l'engagement organisationnel. Pratique et recherche en gestion : vers une réconciliation*, Rapport du congrès annuel de la section ressources humaines de l'Association des sciences administratives du Canada. M. Tremblay et S. St-Onge, dir. Lac Louise, 14 (9), 1993,PP.98-108.
44. Ross, J. E,.& Perry, S., *Total quality management ; Text, cases and readings* (3th Ed). CRC Press LLC, 1999.
45. Sarstedt, M. *Partial Least Squares Structural Equation Modeling*, Ed,C. Homburg et al., Handbook of MarketResearch, 2017.
46. Stone, M., *"Cross-validatory Choice and Assessment of Statistical Predictions"*, Journal of the Royal Statistical Society: Series B (Methodological), 36,1974, PP.111-133.
47. Subburaj Ramasamy. *Total quality management*, Tata McGraw Hill Education Private Limited, 2012.

48. Tenenhaus .M et al.PLS path modeling, *ComputationalStatistics& Data Analysis*, 48, 2005, PP.159-205.
49. Wetzels, M., Odekerkern, G., *Using PLS Path Modeling for Assessing Hierarchical Construct Models: Guidelines and Empirical Illustration,* MIS Quarterly, 33(1),2009,PP.177-195.
50. Wilkinson, A., *Empowerment : theory and practice,* Personnel Review, 27(1),1998,PP.40-56.
51. WILS T., C. LABELLE C, G. GUÉRIN et M. TREMBLAY. Qu'est-*ce que la "mobilisation" des employés ?* Le point de vue des professionnels en ressources humaines, *Gestion*, 23, HEC Montréal,1998, PP.30-39.