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IMPORTANCE OF HERZBERG'S HYGIENE AND MOTIVATIONAL FACTORS FOR SUCCESSFUL ORGANIZATIONAL PERFORMANCE MANAGEMENT SYSTEM: AN EMPIRICAL STUDY ON INDIAN E&P COMPANY

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Abstract: Performance Management System (PMS) is basically related to maneuvering the company in the right direction by strategically planning, assigning, measuring and managing. Lot of research has been carried out however research on PMS holistic implementation is rare. In this paper an attempt has been made to study the main factors responsible for successful implementation of PMS holistically in a pure exploration, production and refining Indian company. A survey was conducted after implementation of PMS and thorough statistical analysis has been carried out, the outcome of which focuses on the importance of hygiene and motivational factors which are in line with Herzberg's Motivational Theory for a successful PMS implementation. The major factors are employee motivation, employee growth, employee incentive, timely redressal of employee grievances, system-based data analytics, strategic alignment of long-term goals and future organizational challenges. Finally, a model depicting the complex relationship between dependent and independent variables which were selected based on thorough literature review have been tested. And the major important factors impacting the implementation of PMS in the above company have been brought out in the form of a validated model. The implications for future research and limitations of the study have been depicted.

Keywords: Performance Management System (PMS), Herzberg's Motivational Theory, Balanced Scorecard model

Introduction

Performance Management system (PMS) is basically related to maneuvering the company in the right direction by strategically planning, assigning, measuring and managing. Lot of research studies have been carried out across various countries in different industries dwelling upon the success and failures of PMS models like Balanced scorecard (Kaplan and Norton, 1992), Malmi and Brown (2008) and Performance Prism (Neely et al. 2001) over a passage of time. Holistic approach in research is missing in the area of PMS (Chenhall, 2003; Dent 1990; Malmi and Brown, 2008).

Exploration and Production Indian company adopted these models consistently and therefore represent a perfect model for studying the impact of these PMS systems on the outcome of the industry. Based on thorough literature review, the major factors affecting implementation of the PMS system have been identified and their outcomes have been empirically studied and statistically tested based on a conceptual model in an integrated manner. The important factors that emerge from this study which decide the success or failure of the system are employee engagement, employee grievances, motivation, future growth challenges, linkage to strategy which is in line with 1959, Herzberg (1959), two factor theory of motivation, which covered hygiene and motivational factors,

which have major implications on PMS. At the end limitations of the study and future scope of study for researchers has also been discussed.

Literature Review

As per Robert Antony (1965), Management control system is "the process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of organization's objectives". Later PMS was defined as means used by management to implement their strategies (Simons, 1995).

Performance management system relied basically on the contingent theory of the management control system (Otley. 1980; Chenhall, 2003), hence it needs customization on a case-to-case basis (Brignall and Ballantine 2004). A new system was proposed known as balanced scorecard (BSC) which had a comprehensive framework that "Translates a company's strategic objectives into a coherent set of performance measures" (Kaplan & Norton, 1993). BSC showed no significant improvement in a study conducted by Chenhall(2008) and Neely(Neely, 2008). The implemented strategies and feedback loop are not clearly covered (Argyris and Schon, 1978; Senge, 1990).

In 1990, Robert Simons put forth a new comprehensive theory called lever of control (LOC), it had four frameworks, that is the beliefs system, boundary system, diagnostic control system and interactive system. A packaged descriptive framework for PMS was introduced by Otley (1999) and Ferreira and Otley (2005, 2009). More defined conceptual package of MCS was brought forth by Malmi and Brown (2008) which comprised five types of control.

This study tries to focus on overall PMS as a system, implemented in an integrated exploration, production and refining Indian company, as an empirical case study bringing out key success factors for making it successful.

Research problem

The Performance Management System (PMS) has evolved over a period of time based on theoretical research and practical difficulties encountered during its implementation in various organizations across the world. As exploration and production industries (E&P) companies had implemented ERP & in order to reap the benefits, were the early adopters of PMS. So one big Indian E&P company have been selected for the empirical research on specific factors affecting an PMS implementation in Indian conditions as research in this area is scarce.

Research Objective

Review of literature has led to the following research issues which are covered in this study for an E&P company in India:

1. What are the major factors that are affecting the PMS implementation?
2. Which are key factors for the PMS system to be successfully implemented?
3. How valid are these key factors affecting PMS?

Thus, these research questions lead to the research objective:

Identification of Key factors responsible for successful implementation of PMS and empirical testing on a conceptual model of PMS in an E&P company in India.

Research Methodology

From literature review the major factors that are affecting the PMS implementation and its success have been summarized and placed in Table1 below.

Table 1

Code	PMS factors	Authors
Corporate Strategic Plan-CSP		
CSP1	Linkage to vision mission and strategy	Kaplan and Norton(1999); Fleming et al. (2009)
CSP2	Improving company performance	Meekings(1995); Kaplan and Norton(1999); Bourne et al. (2002,2003)
CSP3	Linkage of individual KPI to unit level KPI	Meekings(1995); Schniederman(1999); Itner and Lanker(2003); Kaplan and Norton(1999,2000); Martinez and Kennerly(2005)
CSP4	Linkage to motivation	Eccles(1991); Kaplan and Norton (2000)
CSP5	Linkage to performance improvement	Kaplan and Norton (1996); Glimbert et al.(2010); Neely and Bourne(2000)
CSP6	Linkage to long term plans	
CSP7		
Corporate Plan Improvisation-CPI		
CPI1	Adherence to long term goals	Kaplan and Norton (1996); Glimbert et al.(2010); Neely and Bourne(2000)
CPI2	Linkage of long term goal to strategy	
CPI3	Break down of long term goals to short term annual goals	Schneider (1993); Kaplan and Norton(2000); Itner and Lanker(2003): Bourne et al. (2002); Eccles(1991)
CPI4		
CPI5	Analysis of long term plans	

	annually	
Personal Contribution Initiative -PCI		
PCI1	Alignment of individual targets to SBU	Schneider (1993); Kaplan and Norton(2000)
PCI2	Automation of data	Itner and Lanker(2003); Bourne et al. (2002); Eccles(1991)
PCI3	Assessment of individual performance to be system driven	
PCI4	Continuous feedback analysis	Kaplan and Norton(1996); Gimbert et al. (2010); Bilderbeek (1999)
PCI5	Assessment of individual performance to be system driven	Itner and Lanker(2003); Bourne et al. (2002); Eccles(1991)
PCI6	Individual initiative for skill enhancement should be rewarded	Eccles(1991); Kaplan and Norton (2000)
PCI7	Stretch work to be appropriately rewarded	
PCI8	Individual grievances should be timely addressed	
Corporate Growth Initiative-CGI		
CGI1	Characteristics of PMS	Kaplan and Norton(1999); Fleming et al. (2009)
CGI2	Strategic alignment	
CGI3	An eye on the market scenario	Meekings(1995); Schniederman(1999); Itner and Lanker(2003); Kaplan and Norton(1999,2000); Martinez and Kennerly(2005)
CGI4	Future challenges	
CGI5	Imbibing core value	Kaplan and Norton(1996)

CGI6	Dynamic business model	Meekings(1995); Schniederman(1999); Itner and Lanker(2003); Kaplan and Norton(1999,2000); Martinez and Kennerly(2005)
CGI7	Digitalization	
CGI8	Proper utilization of human resources	
CGI9	Proper grooming	Chen and Joness(2009)
Personal Motivation Initiative-PMI		
PMI1	Employee motivation	Eccles(1991); Kaplan and Norton (2000)
PMI2	Proper career planning	Kaplan and Norton (1996)
PMI3	Planned relocation of employee	
PMI4	Data analysis on individual performance	Eccles(1991); Kaplan and Norton (2000)
Enterprise Performance Enhancement-EPE		
EPE1	Grooming of leadership skills	Kaplan and Norton (1996); Glimbert et al.(2010);
EPE2	Data Analytics and Strategic inputs for quick and accurate decision making	Schneider (1993); Kaplan and Norton(2000); Itner and Lanker(2003): Bourne et al. (2002); Sushil(2010)
EPE3	Managerial skills nurtured	
EPE4	Company performance linkage to managerial performance	Eccles(1991); Kaplan and Norton (2000)
EPE5	Strategic Alignment: Company level to team level	Kaplan and Norton(1999); Fleming et al. (2009)
EPE6	Feedback and Analysis	Schneider (1993); Kaplan and Norton(2000); Itner and Lanker(2003): Bourne et al. (2002); Sushil(2010)

EPE7	Strategic Human Resources planning	Itner and Lanker(2003); Bourne et al. (2002); Eccles(1991)
EPE8	Job based Skill upgradation	Kaplan and Norton (1996)
EPE9	Employee performance, career planning and growth based on system data analytics	Eccles(1991); Kaplan and Norton (2000)
EPE10	Measuring success of PMS in an enterprise progress	Meekings(1995); Kaplan and Norton(1999); Bourne et al. (2002,2003)

An abstract model linking the two has been graphically represented in figure 2, which has been tested for its interlinkage.

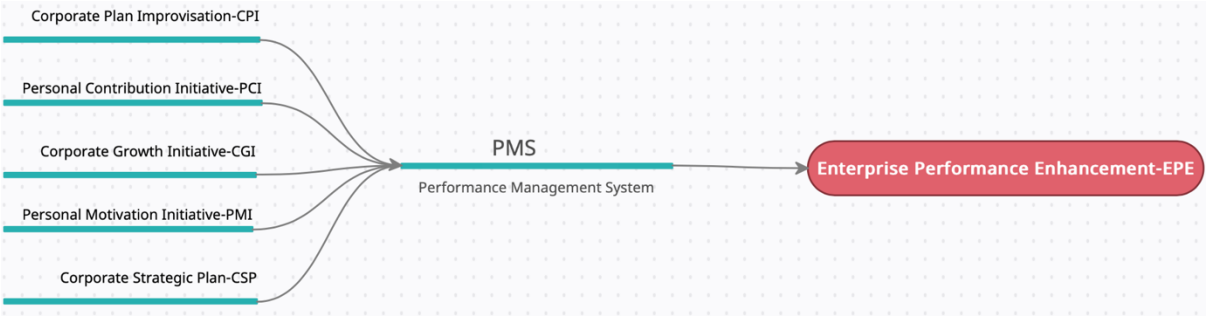


Fig 1: Conceptual model of factors affecting PMS implementation

This study was conducted in a large Indian Crude oil exploration, production and refining company after 15 years of introduction of the Balanced Scorecard model.

Hypothesis

H0: The factors affecting performance management system implementation do not result in successful implementation of PMS

H1: The factors affecting performance management system implementation result in successful implementation of PMS

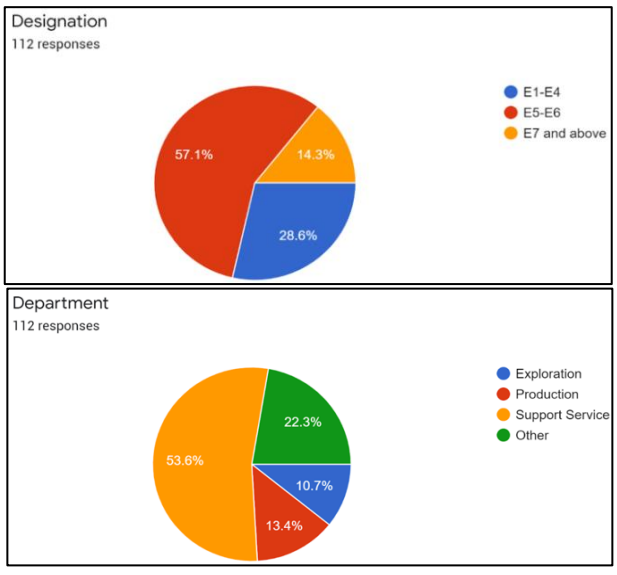
Questionnaire

A quantitative questionnaire was prepared based on the detailed literature review covering the various aspects of a performance management in a corporation and leading to its success (placed at Table 2 below).

Table 2

SNo.	Research Variable	No of questions
1	Corporate Strategic Plan-CSP	7
2	Corporate Plan Improvisation-CPI	5
3	Personal Contribution Initiative -PCI	8
4	Corporate Growth Initiative-CGI	9
5	Personal Motivation Initiative-PMI	4
6	Enterprise Performance Enhancement-EPE	10
	Total	43

As PMS basically affects all the levels in the organizational hierarchy so the questionnaire, prepared on a five-point Likert scale was circulated via snowball random sampling using google forms, to around 200 candidates at various levels, gender, age, experience with departmental segregation. Replies were received from 112 employees. The profile of the respondents is placed as fig 2.



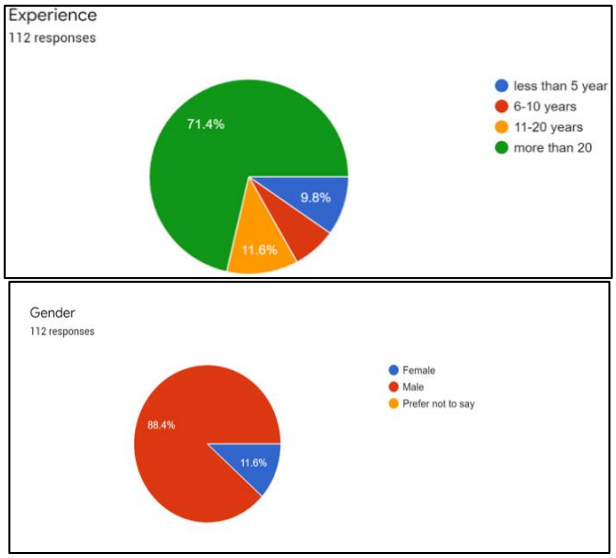


Fig 2

Data Analysis

The descriptive statistical data as per SPSS software are presented in Table 3. The mean and standard deviation for the data is also rational.

Table 3

Research Variable		Descriptive Statistics			
	SNo.	Factors	N	Mean	Std. Deviation
Corporate Strategic Plan-CSP	1	CSP1	112	4.37	1.147
	2	CSP2	112	4.54	.948
	3	CSP3	112	4.04	1.371
	4	CSP4	112	4.19	1.270
	5	CSP5	112	4.17	1.287
	6	CSP6	112	3.79	1.600
	7	CSP7	112	3.55	1.643

Corporate Plan Improvisation-CPI	1	CPI1	112	3.42	.917
	2	CPI2	112	4.10	.759
	3	CPI3	112	4.01	.811
	4	CPI4	112	4.02	.782
	5	CPI5	112	4.06	.726
Personal Contribution Initiative -PCI	1	PCI1	112	3.84	.812
	2	PCI2	112	3.91	.742
	3	PCI3	112	3.98	.771
	4	PCI4	112	3.89	.702
	5	PCI5	112	3.72	.830
	6	PCI6	112	4.03	.799
	7	PCI7	112	4.19	.678
	8	PCI8	112	4.15	.603
Corporate Growth Initiative-CGI	1	CGI1	112	4.08	.699
	2	CGI2	112	3.61	.820
	3	CGI3	112	4.14	.583
	4	CGI4	112	4.21	.699
	5	CGI5	112	4.10	.684
	6	CGI6	112	3.88	.871
	7	CGI7	112	3.72	.893
	8	CGI8	112	4.06	.797

	9	CGI9	112	4.08	.699
Personal Motivation Initiative-PMI	1	PMI1	112	3.61	.787
	2	PMI2	112	2.38	.903
	3	PMI3	112	2.39	1.017
	4	PMI4	112	3.89	.933
Enterprise Performance Enhancement-EPE	1	EPE1	112	4.25	.622
	2	EPE2	112	3.84	.754
	3	EPE3	112	4.08	.737
	4	EPE4	112	4.08	.659
	5	EPE5	112	3.74	.836
	6	EPE6	112	4.03	.636
	7	EPE7	112	3.89	.884
	8	EPE8	112	3.96	.649
	9	EPE9	112	4.01	.704
	10	EPE10	112	4.19	.742

The Cronbach's alpha was 0.853 which implies the data reliability is good as it is more than 0.8 (Table 4).

Table 4

Cronbach's Alpha	N of Items
.853	43
Reliability Statistics	

Table 5

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.796
Bartlett's Test of Sphericity	Approx. Chi-Square	2727.919
	df	903
	Sig.	.000

KMO and Bartlett's Test was conducted on the entire data and it was found to be in acceptable limits (Table 5).

Regression Analysis

Regression analysis was carried out stepwise at a probability factor of ($f<0.05$) for dependent macro variables and independent micro variables. This resulted in exclusion of 37 factors and only 6 micro variables entered the model (Table 6).

Table 6

Dependent Variable	Independent Variables	Performance Management Aspects	Area of Focus
EPE: Enterprise Performance Enhancement	PMI4	Motivation	Data analysis of individual performance
	CGI4	Growth	Future challenges
	CGI9	Growth	Proper grooming
	PCI5	Contribution	Assessment of individual performance should be system driven
	CPI2	Plan	Linkage of long-term goals to strategy
	PCI8	Contribution	Individual grievances to be timely addressed

The descriptive statistical data (Table 7) shows that mean is around 4 while maximum standard deviation is 0.93.

Table 7

Descriptive Statistics			
	N	Mean	Std. Deviation
CPI2	112	4.10	.759
PCI5	112	3.72	.830
PCI8	112	4.15	.603
CGI9	112	4.08	.699
CGI4	112	4.21	.699
PMI4	112	3.89	.933
EPE	112	4.0063	.49398
Valid N (listwise)	112		

The Cronbach's alpha was 0.673 which implies the data reliability is acceptable (Table 8).

Table 8

Reliability Statistics	
Cronbach's Alpha	N of Items
.673	7

For the variables that entered the model, correlation analysis showed a strong correlation between dependent macro variables (EPE) and independent micro variables (Table9).

Table 9

Correlations								
		EPE	CPI2	PCI5	CGI9	PCI8	CGI4	PMI4
EPE	Pearson Correlation	1	.347**	.411**	.531**	.514**	.539**	.427**
CPI2	Pearson Correlation	.347**	1	.086	.291**	.203*	.216*	.066
PCI5	Pearson Correlation	.411**	.086	1	.209*	.175	.192*	-.027
CGI9	Pearson Correlation	.531**	.291**	.209*	1	.312**	.427**	.082
PCI8	Pearson Correlation	.514**	.203*	.175	.312**	1	.331**	.285**
CGI4	Pearson Correlation	.539**	.216*	.192*	.427**	.331**	1	.089
PMI4	Pearson Correlation	.427**	.066	-.027	.082	.285**	.089	1
Correlation (2-tailed) is significant at the ** 0.01 level & * 0.05 level.								

The F value is more than the critical value found from the F table and significance value less than 0.05 and R^2 is 0.664 which is more than 0.5. Thus, T test independent variables are highly significant showing a confidence level of more than 95%. Therefore, all the independent variables must be included in the model as they are highly significant (Table 10 & 11).

These statistical results reject the null hypothesis (H0). We can conclude that the factors affecting performance management system implementation result in successful implementation of PMS.

Table 10

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics	
					R Square Change	F Change
6	.815[f]	.664	.645	.29439	.017	5.363

Table 11

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
6	Regression	17.986	6	2.998	34.588	.000[g]
	Residual	9.100	105	.087		
	Total	27.086	111			
g. Predictors: (Constant), CGI4, PMI4, PCI5, CGI9, PCI8, CPI2						

The final relationship post stepwise regression analysis is shown in Table 12. The data is also favorable showing a very low significance value of t and the lower and upper bound values at 95% confidence level as supporting the findings.

Table 12

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
EPE as dependent macro variable	PMI4	.175	.031	.331	5.588	.000	.113	.237
	CGI4	.188	.046	.266	4.106	.000	.097	.279
	CGI9	.166	.046	.235	3.583	.001	.074	.258
	PCI5	.164	.035	.276	4.699	.000	.095	.234
	CPI2	.090	.039	.138	2.316	.023	.013	.167
	PCI8	.149	.053	.181	2.826	.006	.044	.253

The outcome of the study is presented in the form of a model placed as Fig 3. The empirical analysis shows that out of 43 micro variables, only 6 micro variables successfully entered the model. They are motivation (Eccles, 1991, Kaplan and Norton, 2000), future growth challenges Meekings(1995); Schniederman(1999); Itner and Lanker(2003); Kaplan and Norton(1999,2000); Martinez and Kennerly(2005), grooming of individual employees (Chen and Joness(2009)), rational assessment of performance of individual based on system data (Itner and Lanker(2003); Bourne et al. (2002); Eccles(1991)), linkage of long term goals to strategy (Kaplan and Norton (1996); Glimbert et al.(2010); Neely and Bourne(2000)) and timely redressal of individual grievances Eccles(1991); Kaplan and Norton(2000). These factors were initially depicted in the literature review as one of the probable factors affecting the PMS in the fully integrated crude oil exploration and production company of India with interests in the refining sector. This model is in line with the studies conducted in this area.

This model depicts the importance of the right level of motivation with due incentives, proper and timely redressal of issues of the employees of the company, their proper grooming and dissemination of information about the PMS are an important area which is missed out in the majority of PMS implementations. They are the key to successful PMS implementation along with future growth challenges and linkage of long-term goals to strategy.

The linkage of individual sub- factors is shown in the figure 4, in the form of linkage of factors affecting the PMS implementation success in cause-effect relationship.

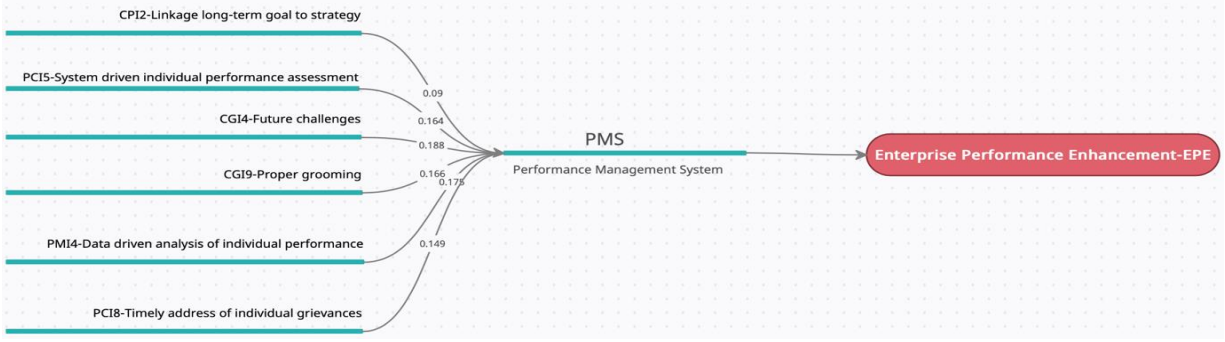


Fig 3: Final model of factors affecting PMS implementation

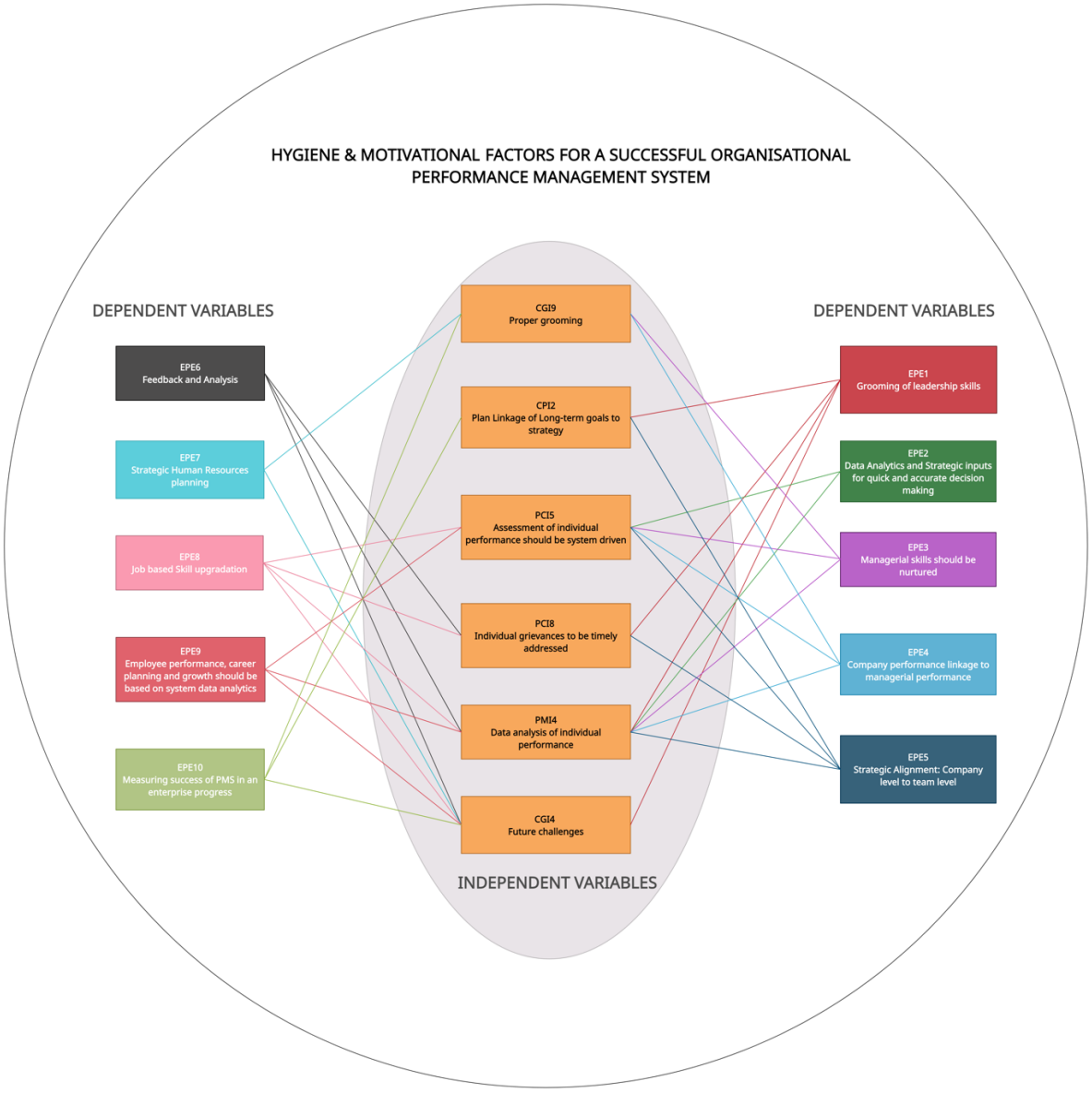


Fig 4

Implications of Finding

Various attempts by researchers and scholars were made to identify factors that enabled the success or failure of PMS in any enterprise. Armstrong (2009), asserted that motivation is the major factor that drives a PMS system success as achievement of goal leads to reward. Weiss and Hartle (1997) showed that recognition and feedback motivates the employee. Wang et al. (2010) in a study proved that extrinsic factors like pay produced higher motivation. Cotton and Tuttle (1986); Weinburg and Gould (2011) also proved this analogy. Manzini and Shumba (2014), depicted that training can be a positive reinforcement as long as it follows constructive feedback and reinforces its requirement for job execution. "Employees who are highly-motivated tend to be more productive, dedicated and cooperative whilst non-motivated workers are less-productive, resistant to change and generally inflexible or lazy." (Hiriyappa 2010).

The validated model for an Indian E&P company has been represented in figure 3 and figure 4, after empirical study and testing of the model statistically. This research highlights the importance of factors like employee motivation, employee growth, incentive and management of employee common grievances along with strategic alignment of long-term goals, future growth and challenges being crucial for success of PMS in any enterprise.

Limitations of study

This study was conducted in an Indian environment and specific E&P company, so the findings are based on their practical experiences and observations. Generalization of the model for successful implementation of PMS can be done after thorough research across different sectors of the industries to test its reliability and utility.

Conclusion

This study has uncovered the importance of the hygiene and motivational factors like employee motivation, growth and their grievances (incentives, recognition and other hygiene needs) being important factors for a successful PMS implementation. The reward & incentives "informs and reminds employees about the desired result areas and motivates them to achieve and exceed the performance targets" (Merchant and Van der Stede 2007). They further stated that "primary goal of incentive is motivation" (Merchant et al. 2003). Moreover, the study reemphasized that strategic linkage of long-term plans and future challenges are very crucial but on their own they can't sail the ship. Therefore, incentives should be linked to organizational strategy so that managers are motivated to achieve it (Govindarajan and Gupta 1985; Kerr 1985; Simons 1995). The above result supports the two-factor motivation theory that included hygiene (pay, company policy, fringe benefit, status, working condition, interpersonal skills, job security) and motivational factors (recognition, growth, responsibility, meaningful work) (Herzberg, 1959). The above findings also support research and literature existing in this field and it would benefit future researchers/implementers, who desire to delve further in this area.

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