KPI's, leadership and psychosocial work environment

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Keywords: KPI's, Leadership, Psychosocial work environment.

1. Introduction

Key performance indicators (KPIs) are the few important measures that managers use to evaluate performance of individuals and/or organizational units. KPI's are an integral part of a performance management system which collect data and serve as a basis for decision support and managerial action. KPI's can be perceived as top-level management's technological instrument to control all employees directly. When an employee is not performing the performance management system will highlight the problem and invite action from management.

From this perspective performance management systems should reduce variation in employees' performance and reduce the importance of first line managers.

This paper presents findings from a longitudinal study of a large Danish financial institution.

2. Methods

We measured psychosocial work environment in 2005, 2007 and 2010 using the COPSOQ instrument (Pejtersen et al. 2010). We collected data on financial performance and the performance management system from 2005 to 2011. The unit of analysis was the customer centers because they are quite uniform and we were interested at effects at the group level. The customer centers are all located in Denmark and are placed all over the country. The customer centers have similar organizations with a manager, assistant manager and a number of financial workers. Size of the customer centers range from 7 to 23 employees and they use the same IT-systems, same sales process and sell the same products. 48 customer centers out of 48 centers participated in a questionnaire based survey and 12 were selected for interviews based on an extreme case approach. The 12 extreme cases were selected for having the most extreme changes in leadership evaluation and productivity between 2005 and 2007. Manager interviews and employee group interviews were done in each customer center in both 2009 and 2011.

From the questionnaire based survey, we selected four variables to represent the psychosocial work environment: 1) Leadership, 2) Vertical social capital, 3) Horizontal social capital and 4) Well-being at work. Social capital was spilt into a horizontal and vertical dimension to differentiate between effects from management and colleagues. Vertical social capital and Horizontal social capital was not measured in 2005.

Productivity was calculated as activity profit divided by total customer center salary. Activity profit was a key measure for the financial corporation and always watched closely by top management. The main component in activity profits was real estate loans and because the average costs for real estate varies a lot between regions in Denmark, this variable had to be adjusted. Activity profit was adjusted for the average cost per square meter in each municipality. The average square meter cost for each zip code in Denmark was obtained from the Danish Bankers Association. Activity profit was further adjusted for number of employees on maternity leave because Danish law requires a company to pay full salary for 6 month of maternity leave.

Cross sectional linear regression analyses were done between the four individual variables and activity profit for each of the years 2005, 2007 and 2010.

3. Context

The financial corporation has changed strategy in the period from 2005 to 2010 and much so. 2005 marked a turning point where the financial corporation implemented a performance management system that tracked each individual employee. The performance management system linked tracked 8 KPI's and linked the performance in these KPI's to a bonus system. The system was referred to as "sales follow-up" and obliged the managers to follow-up on each employee. This was a complete change for the staff who perceived themselves as banking advisers and not sales people.

Between 2005 and 2009 the KPI's gradually changed from focusing on individual products to more focusing on profit. The system still had elements of specific products e.g. salary accounts and allowing individuals to get bonus if they we top performers.

But it was not until 2010 that system changed completely to a very simple performance management system that focused mainly on overall activity profit for a customer center.

4. Results

As can be seen in table 1 there are strong and significant correlations between the independent variables and activity profit. However, the correlations have very different strength in each of the tree years.

The first realization is methodological in the sense that simple cross sectional studies in just one year is far from sufficient. It seems that the time period has a profound effect of that associations between psychosocial work environment and the activity profit.

The second realization is that leadership is quite important in all years. Despite the use of a strict KPI based performance management system there is still a much variation between the customer centers.

The betas for 2010 are quite different from the previous two years. It appears that the three variables vertical social capital, horizontal social capital and wellbeing at work suddenly becomes very important and have great effect. While we cannot statistically infer anything about the direction of the correlation the qualitative interviews indicate that indeed the causality goes from the three variables to activity profit.

The interviews indicated that the changes to the performance management system in 2010 allowed colleagues to actually corporate and specialize in areas of interest. The earlier performance management system tracked at the individual level requiring all personal to deliver the same results despite different interests and competences. The effect is that in 2010 vertical social capital, horizontal social capital and wellbeing at work becomes a productive resource because employees can organized accordingly.

Table 2: Cross sectional analysis of the correlation between our four independent variables and activity profit. The betas show how much the productivity index increases with an increase in all of the items of the independent scales of one step e.g. changing response from "agree" to "highly agree".

Year	Independent variable	Activity profit		
		Beta*	*P*	R^2
2005	Leadership	0,600	0,000	0,245
	Vertical social capital	N/A	N/A	N/A
	Horizontal social capital	N/A	N/A	N/A
	Wellbeing at work	0,177	0,008	0,171
2007	Leadership	0,359	0,000	0,364
	Vertical social capital	0,281	0,000	0,313
	Horizontal social capital	0,184	0,000	0,289
	Wellbeing at work	0,211	0,000	0,297
2010	Leadership	0,568	0,000	0,329
	Vertical social capital	0,628	0,000	0,361
	Horizontal social capital	0,804	0,000	0,420
	Wellbeing at work	0,904	0,000	0,440

*Crude Beta.

KPI's are strong instruments that direct employees' behavior. However, even though the KPI's measure individual performance, first line managers play an important role in translating KPI's into behavior. KPI's measuring individual employee performance can be perceived as a means to bypass leadership and management. When employees have a clear goal (KPI), there is no need for management.

This study finds that KPI's direct behavior but leadership is still important and needed to transform effort into output. The role of leadership is important and we measure a significant correlation between leadership and performance across changing market conditions and KPI's.

Acknowledgement

This study was funded by the Danish Work Environment Fund.

References

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