

MOTIVATING KNOWLEDGE WORKERS: THE DILEMMA OF HRM'S CONTRIBUTION TO KNOWLEDGE MANAGEMENT IN THE CONSTRUCTION INDUSTRY

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ABSTRACT: There is a general acceptance that knowledge management (KM) and its exploitation is vital for efficient working in projects. Knowledge is 'power', both to the organisation and individual employees. This paper examines how knowledge workers can be motivated by HRM practices, policies and associated challenges. The natural tendency for knowledge workers is towards "hoarding" their knowledge with the intention of securing their employment within the organisation. The traditional method of motivating workers is likely not to accomplish the sustained high level performance and contributions of knowledge workers. The paper also explores the interplay between motivation, commitment and trust. Trust is seen as key and the currency of motivational transaction. It is recommended that construction organisations should implement a competency-based pay and praise knowledge workers for their unique contributions. They should also develop a suitable promotion system that retain knowledge workers within their area of expertise and build a 'blame-free' culture.

Keywords - Human Resource Management, Knowledge management, Motivation

1. INTRODUCTION

An organisation's ability to acquire, synthesise, manipulate and exploit knowledge has been deemed paramount to efficient working in projects and for improving organisational performance (Egbu, 1999; Scarbrough *et al.*, 1999; Wiig, 1997; Nonaka and Takeuchi, 1995). The management of this process, known as knowledge management (KM), has become the focus of construction industry in recent times. One viewpoint of knowledge management deals with the process of converting the tacit knowledge embedded in the organisation's workforce into explicit knowledge for the benefit of securing the competitive advantages of the organisation (Polanyi, 1962; Davenport and Prusak, 1998).

Any organisation that wants to continue enjoying this competitive edge through their know-how would be increasingly dependent on the workers who supply such know-how (Reich, 1991). The function of knowledge workers within this structure is seen as strongly associated with the motivational practices inside the organisation (Newell *et al.*, 2002). To successfully exploit the skills and retain this group of workers, organisations must specially cater for their needs and operations (Scarbrough *et al.*, 1998). But there are challenges that human resource management (HRM) practitioners will encounter in attempting to motivate knowledge workers.

Knowledge is 'power', both to the organisation and individual employees; with the ability to confer competitive advantage on the possessor. Knowledge could also be seen as the bargaining power of workers, most especially knowledge workers. The natural tendency for knowledge workers is towards "hoarding" their knowledge with the intention of maintaining their competitive advantage and thereby securing or retaining their employment within the organisation. Behaviour that is rewarded gets repeated. Making KM a high value and high

payoff activity should ensure the contribution of knowledge workers to organisational performance improvement.

It is commonly observed that traditional HRM initiatives in motivating employees are incompatible with the expectations of knowledge workers (Tampoe, 1993). New HRM initiatives are needed to minimise the problems of motivating knowledge workers. The responsibility of the organisational HRM policies and practices should be to provide the context within which high level motivation can be achieved. This would involve providing incentives and rewards, satisfying work, and opportunities for learning and growth by making use of motivational methods such as pay, praise, promotion and punishment. Central to this, is the issue of building trust and encouraging commitment

2. AIM OF THE PAPER

This paper draws from an on-going doctoral study entitled ‘Capitalising on the Human Resource Aspects of Knowledge Management for Performance Improvements in Construction Organisations’. The aims and objectives of this study are:

- To explore and document the challenges associated with effectively managing HR for KM improvements in construction organisations.
- To identify the main factors of HRM that promote and inhibit successful KM initiatives.
- To identify and document the level of education and training needs/requirements of managers and staff, which is necessary for improved understanding of HRM contribution to KM initiatives; with the purpose of developing an appropriate training programme to be used for continuing professional development (CPD).
- To develop and test a conceptual framework (and a prototype) “Productivity Measurement Criteria Applicator (PMCA)” which would attempt to measure the relative impact of human resource issues on knowledge management performance in organisations and how they contribute to organisational process improvement.

Most of what is put forward in this paper is through a thorough review of extant literature and discussions with academic/practitioner experts in the field of KM and HRM, as this study is still in its early stage. This paper examines some of the motivational issues that are to be considered by organisations in their dealings with knowledge workers for improved organisational performance, together with the main challenges they face in this regard. Except knowledge workers are well motivated, gaining their commitment and trust can be a daunting task. This paper elucidates some of the challenges that are most likely to be encountered when traditional method of motivation is applied on knowledge workers and how this can be minimised. Of paramount importance is the subject of pay, praise, promotion and punishment. The proposed methodology chosen for the ongoing research is also briefly discussed.

3. METHODOLOGY

In achieving the aims and the objectives of this research, a robust methodology is being employed. This research is focused on how to capitalise on the human resource aspects of knowledge management for the purpose of improving performance in construction organisation. A thorough review of extant literature is on-going in the areas of knowledge management, human resource management, organisational learning, process improvement practices and performance management initiatives. Good sources have been identified in Journals, books, internet databases, periodicals and conference proceedings. The next stage of

this research would be to embark on pilot study. This will take the form of semi-structure interviews. Both qualitative and quantitative research methods would be applied during the main study using semi-structured interviews, postal questionnaires and case studies. The use of questionnaires and interviews will be as investigative mechanisms to identify the key human resource factors that inhibit and promote knowledge management. Appropriate software packages including Statistical Package for Social Sciences (SPSS) will primarily be used to analyse the quantitative data collected, while Non-numerical Unstructured Data Indexing Searching and Theorizing (NUD*IST) would be employed for the analysis of qualitative data. Using the information deduced from the data collection phase, a framework will be developed to assess the relative impact of human resource issues on knowledge management performance in organisations and how they contribute to organisational process improvement. The validation of the framework will form the basis of the conclusion and recommendations of this study.

4. KNOWLEDGE WORKERS: WHO ARE THEY?

Knowledge is gradually becoming the distinctive asset for achieving a competitive edge within the global market place and its management is viewed by organisations as being of critical importance to retaining competitive advantage and accomplishing excellence in service delivery. Knowledge tends to connote possession of experienced “know-how” as well as possession of factual information or where to get it. Uniquely, the human capability of making meaning out of information is deemed very important to knowledge (Miller, 1999).

Most scholars agree that the knowledge that resides in the organisation, especially the tacit knowledge that resides in employees is the most important source of these hard-to-imitate resources which gives competitive advantages (Wong and Radcliffe, 2000). It is the employees themselves who are adding value to the organisation through their creativity, commitment and skills (Love *et al*, 2003). Employees own knowledge. They can sell it, trade it, or give it away and still own it (Allee, 1997).

Experts have pointed out that human resources will become the final source of competitive advantage (Choi and Varney, 1995). They argued that the competitive advantage that will differentiate one firm from another will be the level of knowledge and creativeness of workers in the organisation. Therefore, organisations need to develop a greater appreciation for their intangible human assets, captive in the minds and experiences of their knowledge workers (Malhotra, 1998).

The implication of this is that organisations must address the needs of workers who supply the knowledge if they are to successfully exploit their skills. They should be suitably rewarded to reflect their values (Druker *et al*, 1996). The way organisations motivate their employees and coordinate their activities for knowledge management is still largely unexplained (Osterloh *et al.*, 2002).

The industrial era widened the gap between those who conceptualised, organised and directed tasks and those who carried them out. This has led to the increased value of college-educated labour over routine labour. The advent of the knowledge-based economy has further widened this gap. While industrial era gave more relevance to white-collar jobs more than blue-collar jobs, the new era of knowledge has produced the ‘gold-collar’ jobs with even more relevance. The ‘gold-collar’ workers do work which is knowledge and information based. These new types of work are now being performed by new types of workers, and both of these phenomena are poorly understood.

The term 'knowledge worker' was coined by Peter Drucker in 1959 to represent those who work for a living at the task of developing or using knowledge. This leaves the definition of knowledge worker rather imprecise and shadowy.

The construction industry employs an extremely diverse range of people from a wide range of occupational cultures and background, including people in unskilled, craft, managerial, professional and administrative positions (Loosemore *et al*, 2003). These workers are further sub-divided into 'core' and 'periphery' (Hendry, 1995). The core workers, drawn from the primary labour market, have permanent contracts and offer functional flexibility within the organisation.

The peripheral workers do not have permanent contracts and they are expected to provide more numerical and financial flexibility than the core workers. Even amongst the core workers, there are some professionals on permanent contracts who hold the information required for key jobs and are considered as the key of core employees. It is important to determine who a knowledge worker is amongst all these people.

Storey and Quintas (2001) questioned whether one can simply categorize people employed in non-material work as necessarily "knowledge workers" and those engaged with "things" as non-knowledge category. A pertinent question asked by Dove (1998) was, "why do we put people through apprenticeship programs if not to develop their knowledge?" The answer to this question would reflect that all organisations and work involve knowledge to some extent; a little degree of knowing is involved in doing (Newell *et al*, 2002). Taylor (1911) noted that foremen and superintendents know that their own knowledge and personal skill falls far short of combined knowledge and dexterity of the workmen under them.

For the purpose of this paper, knowledge workers in the construction industry will be considered to include any worker who receive information, assimilate it, decide what to do and execute decisions based on the knowledge that comes from the information received.

Some of the characteristics of these workers are that they are problem solvers not only production workers. They use their intellect rather than their manual skills to earn a living. They require high level of autonomy. They are very interested in the quality of their judgement rather than the speed of work. They have more allegiance to their area of specialist expertise or community of practice (COP) more than to their employers. They know more about their job more than most in the organisation. They use knowledge and information to add to deeper knowledge and information. They cherish challenging tasks and require a habit of continuous learning due to their recognition of the shelf-life of knowledge. They possess uncodified knowledge which is difficult to duplicate and the source of this knowledge is between their ears (Western Management Consultants, 2002). Their tacit knowledge is sometimes referred to as 'wetware' as compared to hardware in the organisational databases.

5. THEORIES OF MOTIVATION

The word 'motivation' comes from the Latin word 'motus', which in English language translate into 'move'. This is the need or desire that causes a person to proceed toward a certain state or condition (Meriam-Webster Online, 2003). Barrat and Georgides (1994) assert that a worker will largely perform proportionately to his/her degree of motivation. They went further by defining motivation as the degree of enthusiasm displayed for doing one's job which affects the initiative taken, the extent of self-confidence and commitment, and the degree of professionalism shown. Sometimes, our motives are basically to eat and pay the relevant bills (Brenner, 1999). But at the other end, motivation can be complex. This could involve issues such as making a difference in the world, working with new technology,

tackling a challenging project, extending our personal boundaries, mentoring with an expert, or being recognised for specific achievements. A brief examination of the main theories of motivation is necessary.

5.1. Hierarchy of Needs Theory

Abraham Maslow's work on "hierarchy of needs" is justifiably popular and useful. Maslow (1954) depicts man as progressing from the satisfaction of physiological needs to higher-order requirements of self-actualisation. He organised these needs into five categories in ascending order, with each building on the previous level. He hypothesized that each individual needs must be satisfied at the lower levels before they progress to the higher, more complex levels. This work has been criticised by some for believing that needs are really step-by-step and that certain ones must be met before others are satisfied. Others said that Maslow's theory draws too definite a line between each level – that there may be a grey or blurred zone between each motivational need. But Maslow's work may be a good foundation on which to start building an understanding of how to motivate knowledge workers. Reasonably, it can be hypothesised that knowledge workers would be looking for motivation from the highest levels of Maslow's hierarchy of needs, which is self-actualisation. Most knowledge workers have no need to worry about their physiological, security and safety needs. These basic, low-level needs might no longer motivate their actions, though the needs are always present. In many ways the need for self-actualisation is never fully satisfied.

5.2. The Motivation-Hygiene Theory

Herzberg *et al* (1959) develop two distinct lists of motivating factors known as the intrinsic and extrinsic motivation. Any activities that are undertaken for the immediate satisfaction of one's needs are considered to be intrinsic motivation. Intrinsic motivation cause happy feelings or a good attitude within the worker and are task related. e. g. recognition of task completed.

The factors that contribute to intrinsic motivation are recognition, achievement, possibility of growth, advancement, responsibility and the work itself. Extrinsic motivation, on the other hand, is primarily present when feelings of unhappiness/bad attitude are evident. These factors, Herzberg *et al* (1959) are called motivation-hygiene factors. The factors that contribute to extrinsic motivation are salary, interpersonal relations with supervisor, subordinates, peers, etc., technical supervision, company policy and administration, working conditions, factors in personal life, status and job security.

Herzberg's work has been criticised because no attempt was made to measure the relationship between satisfaction and performance. It has been suggested that the two-factor nature of the theory is an inevitable result of the questioning method used by the interviewers. Despite all these, Herzberg's work is thriving because it seems to be based on 'real-life' and it fits in well with the highly respected ideas of Maslow in its emphasis on the positive value of the intrinsic motivating factors (Armstrong, 2003).

5.3. Theory X and Theory Y

McGregor (1960) develop two opposing models of managerial approach known as Theory X and Theory Y. McGregor sees two noticeably different sets of assumptions made by managers about their employees.

The first set known as Theory X was based on his views of managers who are work and job centred. These managers assumed that an average human being dislike work and responsibility, cannot be trusted, prefers to be directed, has little ambition, wants security and will only work under external coercion or control. Theory X was criticised because it deprives employees of opportunities to satisfy what Maslow identified as higher-level social needs of self-esteem and self-actualisation.

The second set known as Theory Y sees employees in more favourable light. Theory Y is more employee-centred style of management capable of fully exploiting the creative and productive potential of employees. Theory Y was built on the assumption that mental and physical efforts in work is as natural as play and rest; that an average person does not loath work but would see it as a source of reward or punishment depending upon controllable conditions.

These theories do helped to identify extreme forms of management styles. However, there is a danger that they might be seen only as an “either/or” style. The possibility in real life is that, a blend of the two theories (X and Y) may provide the best solution for effective management. The combination of these two theories was later developed by Ouchi (1981) into Theory Z.

5.4. Expectancy Theory

The Expectancy Theory, which is mainly the result of the work of Vroom (1964), is one set of ideas which attempt to study the process of motivation. The Expectancy theory uses two variables: “Valence” and “expectancy”.

Valence is the measure of an individual’s desire for certain results. It may be positive, i.e., an outcome is desired; zero, i. e., the outcome is neither desired nor attractive; negative, i. e., the outcome is unattractive.

Expectancy is an individual’s assessment of the possibility that a particular act will or will not lead to certain outcomes. In simplistic terms, Vroom’s theory is that motivation is a product of valence and expectancy, i. e.

$$\text{Motivation} = \text{Valence} \times \text{Expectancy}$$

The major contribution of this theory is that it takes a comprehensive view of the motivational process and indicates that individuals will only act when they have a reasonable expectancy that their behaviour will lead to the desired outcome.

6. MOTIVATING KNOWLEDGE WORKERS

Organisational ‘know-how’ and commitment possessed by its human capability distinguishes successful organisations from the rest. Knowledge workers are special resource requiring and deserving managerial time and attention. For knowledge workers, traditional motivation theories are not keeping pace with the reality of the workplace or their aspirations (Maccoby, 1988). It would be required of organisation’s HRM policies and practices to design a different kind of incentive to motivate knowledge workers. The lessons learnt from the motivational theories above need to be taken into account in designing and operating an appropriate reward system for knowledge workers. This should include consideration for pay, praise, promotion and punishment.

6.1. Pay

In an industrial economy, pay is often viewed as 'compensation'. According to Harman and Brelade, (2000) how pay is viewed impacts on its motivational value. Where pay is viewed as compensation, the underlying assumption is that the work is not something that employees would willingly do and therefore they have to be compensated for the 'inconvenience' of doing it. This is less true in the knowledge-based economy. Knowledge work provides the opportunities to achieve and to solve problems, and can be viewed as an intrinsically enjoyable activity. Therefore, pay should be used to reward what is done rather than compensate for doing it in the knowledge-based economy.

For many years, organisations have built pay system around the job by relying heavily on salary to make up the bulk of each employee's compensation package. The base pay levels, training and development, career ladders and other practices were determined by the analysis of the job. During this period, reward system was functioning on skill-based systems. Skill-based systems can be very effective when applied to routine factory work and high-volume service jobs where skill blocks are easy to define. But knowledge workers do not have one discrete, well-defined job. Designing a similar system to reward knowledge workers can be very challenging. Research conducted by Tampoe (1993) identifies four key motivators for knowledge workers and amongst them money (pay) had the lowest priority. Money in its varying forms has little incremental value as a motivator, even if it is related to performance. Still, knowledge workers must be paid for their knowledge, skills and competencies.

However, paying for the knowledge, skills and competencies of knowledge worker presents formidable challenges (Ledford, 1995). The work, which goes on largely within their heads is varied, abstract, non-routine, full of uncertainty and sometimes creative. As a result, it is not easy to define compensable sets of skills and knowledge for these employees. The solution to this might be for organisations to rely on strategic valuing, in which they estimate what a skill is worth to the business. This may involve intentional departures from market rates. Considerable experimentation will be needed before organisations will fully understand the consequences of these choices, as well as the most favourable conditions for them. Paying knowledge workers should be combined with showing them appreciation for their contribution to the organisation by praising their efforts.

6.2. Praise

Knowledge workers want to achieve work at a standard and quality of which they can be proud (Tampoe, 1993). Knowledge workers are most likely to thrive and be motivated if they work in an environment in which they are valued for what they are and what they do (Armstrong, 2003). This means that the organisation needs to take notice of their input. For this, they need the feedback on how relevant the task they undertook has been of relevance to the organisation. Most of them want recognition of their importance to the organisation. Organisation should also keep knowledge workers in the know by regularly giving them information on how they are performing and on what the organisation is doing and why.

6.3. Promotion

Traditionally, hierarchical structure determines salary and employees aspire for a progression up the hierarchical ladder. The belief is that managers must earn more than those they manage. This often meant that employees have to become managers to progress in financial terms (Harman and Brelade, 2000). It is counter-productive if knowledge workers have to leave their area of expertise to earn more. The major challenge for HRM policies and

practices will be on developing a progression that does not remove knowledge workers from their area of expertise. This will also involve the need for the provision of facilities and opportunity to grow by learning through such means as personal development planning process as well as formal training. Most importantly, the culture of empowerment should be developed. Empowerment represents a shift towards a greater emphasis upon trust and commitment in the work place which involves the devolution of various degrees of decision-making power and responsibility (Pastor, 1997). Knowledge workers should be empowered to take autonomous roles of self-leadership (Malhotra, 2002).

6.4. Punishment

Knowledge workers work collaboratively with and learn from each other. They are willing to take risks, expecting to learn from their mistakes rather than be criticised for them (Rogoski, 1999). Following Douglas McGregor's theories 'X' and 'Y', traditional organisations used various punishments such as disciplinary action, withholding pay, criticism or dismissal as tool for motivation. HRM is challenged to view knowledge workers as volunteers who regards themselves as free agents and can choose how and where they invest their talents, time and energy. What disciplinary procedure should then be adopted by the organisation in dealing with perceived and real cases of misconduct and incapability of any knowledge worker? According to Armstrong (2003) this is one of the most distasteful, onerous and stressful activities that HRM practitioners get involved. He went further by recommending three disciplinary procedures that organisations must adopt before dismissing or disengaging any knowledge workers from the organisation. These are informal oral warning, formal warnings and final written warnings. Such dismissal should be transparently fair so as to forestall decrease in employee morale, commitment and loyalty.

6.5. Benefits of motivating Knowledge workers

Though, motivating knowledge workers can be very challenging, some of the benefits of motivating them are:

1. Knowledge workers who are well motivated are sources of innovation. They offer the organisation a way to cut costs, and secure competitive advantage.
2. Motivated knowledge workers breed committed employees who would 'go the extra mile' in pursuit of organisational goals and facilitate improved communication within teams to provide informed and insightful advice to project managers and project teams.
3. Organisational performance is bound to improve and efficiency gains increased when knowledge workers are well motivated. They would improve quality, provide customer satisfaction and reduce project time.
4. Motivated knowledge workers can be expected to exercise responsible autonomy/self-motivation and self-control; removing the need for supervisory and inspection staff.
5. Motivated knowledge workers are more likely to stay with the organisation, thereby ensuring a return on investment and low labour turn-over.
6. Motivated Knowledge workers also focus on improved sharing of best practices, lessons learned, project management systems, engineering methodologies and the rationale for strategic decision making.
7. Knowledge workers who are well motivated prevent the failure to capture and transfer project knowledge which might lead to an increased risk of 'reinventing the wheel', wasted activity, and impaired project performance.
8. When knowledge workers are successfully motivated, they could overcome learning barriers through instilling a learning and knowledge sharing environment.

7. TRUST, COMMITMENT AND MOTIVATION

7.1. Trust

Co-operation between the organisation and knowledge workers, which is vital to improving performance, is based on trust (Weick *et al*, 1995). The works done by knowledge workers are not easily measurable. Their output cannot be reduced to some measurable standard like tons of steel produced per day. There is a need to trust knowledge workers and their judgement. Without trust, knowledge initiatives can fail, even if the survival of the organisation depends on effective knowledge transfer (Davenport and Prusak, 1998). Trust builds incrementally and it accumulates. Trust ties together an attentive system, which forms the collective mind required for reliable performance (Koskinen *et al*, 2003). Trust is, however, fundamentally an individually emphasized phenomenon, because it is based on understanding with the help of which knowledge workers try to comprehend the organisation's behaviour towards them and the motives behind it. When a feeling of trust becomes established it affects the perception of knowledge worker's motives and impact directly on their commitment to the organisation.

7.2. Commitment

Commitment is a psychological bond between employees and employers which comes from high job satisfaction and performance. This is shown through the strong desire to remain as a member of the organisation; a strong believe in and acceptance of the values and goals of the organisation; and a readiness to apply considerable efforts on behalf of the organisation (Legge, 1995). Organisational objective is to gain commitment willingly. Commitment is different from compliance. Compliance is seen as maintained by externally imposed bureaucratic control systems and it generates reactive rather than proactive behaviours of doing the necessary works just to get by. The expectation of organisations is that through careful motivational process and trust, employees will become committed to the values that drive the organisational business strategy (Legge, 1995).

8. CONCLUSIONS AND RECOMMENDATIONS

The issue of motivating knowledge workers is one that would benefit construction organisations greatly, if well implemented. It has been shown in this paper the main challenges that the construction organisations might face regarding motivating knowledge workers and how this can be tackled. Organisation can minimise these challenges by implementing competency-based pay, praising knowledge workers for their unique contributions, developing a suitable promotion system that does not remove knowledge workers from their area of expertise and developing a 'blame-free' organisational culture. The issue of trust, which is the currency for motivational transaction, was also highlighted. Trust impinges on the commitment of knowledge workers greatly.

It has been suggested in certain academic quarters that going by the current explosion and availability of organisational knowledge – knowledge boom, knowledge workers might not enjoy the current level of significance and attention being levelled at them for a long period. But before that happens, knowledge workers still have to be motivated to remain committed to contributing their knowledge towards performance improvements within the organisation. This is an issue worthy of deeper investigation. Gaining the commitment of knowledge workers has been shown in this paper to be a very challenging task that HRM practitioners

will have to execute. Further research would be appropriate which could take a case-study based approach.

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