

How to Motivate and Retain Knowledge Workers in Organizations: A Review of the Literature

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With the exponential growth of information and the increasingly rapid rate of change, one of the most valuable resources in organizations today is knowledge workers. These individuals are pivotal to effective change management and organizational sustainability. Knowledge workers process, synthesize and generate knowledge in order to problem-solve and innovate in organizations. Characterized by a high level of education, superior interpersonal communications skills, and exceptional information processing abilities, these employees are generally more concerned with adding value to the organization than earning a high salary. Based on the research, some ways to motivate and retain knowledge workers include: providing challenging and meaningful work, enabling learning and career development opportunities, ensuring adequate resources, recognizing contributions, and creating a supportive environment.

Introduction

Around the world the workforce is rapidly changing, and dynamics are altering how organizations perceive the acquisition, use and generation of knowledge. Workplaces have evolved from pre-industrial apprenticeships to large scale, specialized, and segmented organizations, with defined employee roles and responsibilities (Sauve, 2007). In the information age, knowledge has become the critical raw material and source for creating value (O'Driscoll, 2003; Drucker, 1992). Emphasis has shifted away from physical capital towards human capital. The spotlight is on knowledge workers (KWs), who are seen as the height of competitive advantage through continuous learning and innovation. Ironically, the rhetoric of many organizations has long been that 'people are our most valued asset', yet ineffective employee learning investments or supports, poor managerial practice and unsupportive work environments persist. A new paradigm is needed that recognizes knowledge workers as valued human assets, not expendable cost centres (Vora, 2004). Optimizing KW performance is the secret ingredient needed for modern organizational success.

Today's organizations must accept that no program or activity continues for long without eventual redesign or modification to prevent obsolescence (Drucker & Maciariello, 2004). In the information age, workplaces must embrace Senge's concept of *learning organizations*

...where people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning how to learn together (Senge, 1990: 3).

Interestingly, varied individual responses to a situation are a distinguishing trait between KWs. A knowledge worker (KW) can "...understand a body of knowledge and generate

new information from that understanding....” (Kidd, 1994: 186). Drucker (1973) referred to this primary KW characteristic as a ‘diversity of outputs’ since they are internally sourced, based on each person’s knowledge, skill set and prior experience. Nevertheless, a knowledge worker’s thinking changes frequently through his career, based on inputs and external changes. Although electronic storage and retrieval tools have mushroomed as companions, they are not heavily relied upon by KWs.

Globalization, the proliferation of technology, workforce diversity, and the knowledge society have sparked a wave of learning, training and workplace education in organizations from all sectors. Complex workplace interactions now typically “...require people to regularly deal with ambiguity and solve problems based on experience or tacit knowledge” (Sauve, 2007: 1). Additionally, Davenport (2005) found that the fastest-growing organizations with the highest revenue also performed the most innovative knowledge work. He cites Microsoft as “...one of the most profitable organizations in the history of the planet....Growth industries [like ICT] generally tend to be those with a high proportion of knowledge workers” (DLS Group Inc, 2007: 6).

Answering the cry for innovation are knowledge workers - the workforce segment experiencing the most growth across industries (Sauve, 2007). In fact, knowledge workers are pivotal change agents in organizational development by borrowing, adapting and producing knowledge for sustainable change management. Attending to KWs’ unique characteristics, developmental and managerial needs, and retention considerations are of utmost importance since “...the knowledge work force has become the linchpin to an organization’s success, as the world morphs into a knowledge economy” (DLS Group Inc, 2007: 6). Coined by Peter Drucker (1952), the father of modern management, a KW is valued for the “ability to interpret information within a specific subject area.... through focused analysis, design and/or development. They use research skills to define problems and to identify alternatives” (Wikipedia, n.d.). Drucker accurately predicted that major social changes would result from boundless information, making knowledge workers the largest and (potentially) the most important work group (Clark, 2004; Davenport et al 2002).

Characteristics

Knowledge workers’ productivity typically peaks between the ages of 35 and 54 (Jamrog, 2004), is characterized by a high level of formal education and skill (Clark, 2004), matched with effective speaking and writing talents, superior interpersonal capabilities, and the ability to “shape and direct one’s own work, contribution and career” (Drucker, 1992: 5). Further, the KW’s high investment in education makes them more valuable than many of their salaries suggest. Yet KWs are empowered by tacit knowledge, and often do project-style work that necessitates superior soft skills such as interpersonal communications and negotiating skills. Aided by technology, networking and knowledge processing capabilities are the lifeblood of knowledge workers. Supports for KWs may include Communities of Practice (CoP), blogging, conferences, discussion boards, and instant messaging software. Taken together, KWs are a more educated group, have higher

expectations, and generally have less tolerance for nonsense than manual workers. As a result managers need to treat them differently (Nickols, 2000).

Drucker underscored the main difference between knowledge work and manual work: KWs rarely have prefigured work routines. Rather they must configure a way to address a situation. Thus, KWs defy conventional supervision and controls. Only the knowledge worker herself can make her work productive (Nickols, 2000). In any case, organizations are structured with positions of power and authority, so obtaining compliance means facilitating individual contributions. Compliance has less relevance in today's workplace, than it had in the decades before that were marked by routine manual work (Nickols, 2000).

Managing Knowledge Workers

Managing KWs as valued intellectual assets is critical for capitalizing on and distributing knowledge in the organization by realizing the KWs' own initiative (Papacharalambous & McCalman, 2004: 148). Interestingly, "the most common approach to high-end knowledge work...can be summarized as 'hire smart people and leave them alone'" (Davenport et al, 2002: 26-27). Drucker would disagree, arguing that in managing the knowledge worker, one must demand responsibility of him/her for organizational contribution, ensuring the KW also appraises their own contributions. Drucker (1966) envisions "every knowledge worker in [a] modern organization ... is responsible for a contribution that materially affects the capacity of the organization to perform and to obtain results" (Clark, 2004). Without such self-assessment, knowledge workers feel non-achieving, dissatisfied and alienated from their organization (Drucker, 1985).

The supervisory implications are that a KW's work performance simply cannot be automated, predicted or micromanaged (Thompson & Heron, 2005). The quality of humanness is the epitome of knowledge workers because "humanness arises in our relationships with others through communities", which are the KW's source of learning and knowledge (Plaskoff, in Easterby-Smith & Lyles, 2005: 179). A knowledge worker must be left to his/her own imagination to breathe meaning into newly synthesized or retooled knowledge configurations. Managers of KWs need to ensure environmental conditions optimize knowledge worker performance, so that knowledge sharing happens naturally (Davenport, 2004; Thompson & Heron, 2005).

Two main principles of knowledge worker management are emphasizing professionalism and collaboration, and decreasing emphasis on individualized performance metrics and incentive schemes (DLS Group Inc, 2007). Additionally, focusing on "iterative work structures" as opposed to sequential, linear ones, allows variety between structured and unstructured work experiences (DLS Group Inc, 2007; Child & Rodrigues, 2005). As a result KWs will rise to the occasion, and work towards achieving strategically aligned organizational objectives, tailoring work accordingly. KW autonomy springs from defining one's own work tasks and results. It is advisable that supervisors permit their KWs to propose their own work plans, projected outcomes, and mutually agree to deadlines for accountability (Drucker & Maciarello, 2004).

Importantly, conventional ‘command and control’ style management is ineffective with KWs, who have an inherent sense of contribution to organizations, providing they have fertile environments in which to flourish. By contrast ‘supportive management’ realizes KW achievement of organizational goals through praise, recognition and resource provision (Esque, 1999). Such managers empower their KWs to add value by promoting excellence, and helping facilitate productive work. Symptoms of supportive management are clear workforce goals and metrics, accurate performance data, and a general sense of everything being ‘under control’ (Esque, 1999).

Knowledge Work Performance

When knowledge is applied “... to tasks we already know how to do, we call it ‘productivity’. If we apply knowledge to tasks that are new and different, we call it ‘innovation’” (Drucker, 1992: 26). How an organization can reap the most benefit from KW productivity and innovation, should be on the radar screen of CEOs. In addition to effective management, other determinants of knowledge worker performance are ICT, workplace design and other supports. Essentially,

... an organization in a knowledge-based economy and society can excel... by getting more out of the same kind of people – by managing its knowledge workers for greater productivity and ‘to make ordinary people do extraordinary things’ (Drucker, 2002 in DLS Group Inc, 2007).

Recommendations aside, some KW authorities feel that the research findings do not recognize a clear, singular solution to improving knowledge worker performance since each KW is unique in their knowledge, skills and experiences (Davenport et al, 2002: 27). Notably, organizational performance consultant, Geary Rummler “...suggests that the tendency to pigeonhole problems is indicative of bureaucratic organizations” which fail to adopt a systems approach seeing multiple root causes of KW performance issues, many of which are environmental (O’Driscoll, 2003: 7). It is naïve to assume that the organizational environment does not play a significant role in KW performance, and that the only leverage is through training, to remedy individual ‘deficits’. Rosenberg (1990) suggests that the big picture of KW development should look at facilitating change on three levels: work (job), worker (employee), and workplace (organization), since the three are interdependent (O’Driscoll, 2003).

Knowledge Worker Motivation

Intertwined with knowledge worker management and performance considerations is the motivation from the valuation of their contributions to the organization. Knowledge workers must be able to do what they are being paid to do, otherwise their motivation will invariably deteriorate (Drucker, 1985). With high expectations to produce and contribute to the organization, knowledge workers are “...more likely to be alienated if not allowed to achieve” (Drucker, 1985: 117). KWs need challenging, intellectually stimulating and varied work that adds value to the organization, stemming from supervisory direction (Jamrog, 2004). Drucker further suggests that managers consult their KWs on what they can do to aid their performance in terms of resources (time, resources, access to

information), and also find what hampers their performance. In other words, appropriate utilization of these intelligent intangibles is central to their productivity. Nonetheless, managers need to do a "...regular inventory and ranking of the major opportunities" to find out if their KWs are being effectively used, and what the results of their projects are (Drucker, 1985; Vora, 2004). Without prioritizing the work of KWs to fit with their specialized skill set, a firm risks employee disengagement and turnover, in addition to lost opportunities for using knowledge worker strengths for value-added innovation. Moreover, unless this is being done, people will be assigned by the demands of the organization ... rather than by their importance and their potential of contribution. In no time they will be misassigned. They will be where they cannot be productive, no matter how well motivated, how highly qualified, how dedicated they are (Drucker, 1985: 115). In other words, if you "pit a good performer against a bad system, the system will win almost every time" (Rummler and Brache, 1995: 13).

The perception of the employee-employer psychological contract plays a major role in KW retention and knowledge creation (Thompson & Heron, 2005). Affective commitment cements a relationship founded on social capital, and results in more innovation when KWs feel safe sharing their knowledge (Thompson & Heron, 2005). The KW-managerial relationship is particularly noteworthy, as managers are central to a supportive environment that allows the KW to flourish. The quality of this relationship, and perceived fairness of policy and practice application, provides the foundation for employee commitment and knowledge generation (Thompson & Heron, 2005). A violation of this psychological contract is seen as an injustice, and fosters negative attitudes and behaviors in KWs, which diffuses their organizational productivity and motivation.

Of course, only the managers of knowledge workers can help stimulate their productivity, and conversely, poor management will yield poor performance (Thompson & Heron, 2005). With an unpleasant supervisor or other negative conditions, employees will look for an alternate workplace that meets their needs, especially if supervisors do not treat them with respect and dignity (Jamrog, 2004: 8; Esque, 1999). Managers are the main source of KW motivation, since they are the key to positive reinforcement and inspiration (Jamrog, 2004; Vora, 2004). Clearly, a manager's behaviour and attitude shape the degree of innovation and productivity of a KW. Unfair managers derail the knowledge worker's motivation level, which hampers organizational effectiveness, problem-solving and initiative.

Managing KWs for engagement is a marketing job and means asking, 'what does the KW want and need?', and 'what does she consider valuable results?' Interestingly, a cue for effectively managing KWs can be taken from voluntary organizations, where people work for satisfaction and challenges, not just a pay cheque (Drucker & Maciarello, 1992). For instance, non-profit organizations put a lot of thought into designing their mission statements, typically involving organizational members in the process (Drucker, 1992). As well, the purpose of work tends to have higher meaning within community-based agencies, and employees feel rewarded for their contributions, as opposed to feeling like faceless cogs in a corporate, money-making machine.

Work Area and Design

The spatial layout and materials used by KWs often results in a typically messy KW desk, due to retaining knowledge in a 'holding pattern' until it has been categorized (Kidd, 1994). For example, a study of 200 KWs, in four US organizations, revealed that only 17% of a KW's time is spent searching and scheduling, while 80% is invested in interpreting, applying and eliciting knowledge (DLS Group Inc, 2007). Relying more upon tacit than explicit knowledge, their desks and floors tend to act as repositories for unsorted information. Regardless, each knowledge worker is unique and is informed differently, based on their prior experiences (Kidd, 1994). KWs are further marked by internal change, resulting from mass information processing (Kidd, 1994). Since a KW's worldview is constantly reshaped, their mental models are continuously renewed, enabling a fresh perspective that frees him/her of old paradigms that are no longer useful (Senge, 1990).

When KWs have a suitable workplace and adequate resources, it has a measurable effect on the knowledge work they are capable of (Davenport et al, 2002). Effective physical design of the workplace "...can improve performance by as much as 15 percent" (Medsker, 2006: 666). Moreover, knowledge work requires focused thinking which demands the employee's attention, often limited by an open work space characterized by distractions, particularly for 'low screeners' who have more difficulty blocking them out (Medsker, 2006). If not minimized, distractions can degrade and delay a KW's performance; recovering from interruptions may take fifteen minutes or longer (Medsker, 2006).

Knowledge Worker Development

Closely linked with KW performance and motivational methods, is development. Firms in the information age need to become learning organizations (Senge, 1990), and teaching organizations, each respectively providing aggregate benefit to the organization (Drucker, 1992). Developing and maintaining KWs means ensuring they are at the top of their game, and ready for innovative problem-solving. For corporate agility to respond to internal and external change effectively, organizations need to become 'knowledge-creating companies' (Nonaka & Takeuchi, 1991) by developing the capacity to be creative or innovate regularly (O'Driscoll, 2004: 5).

When an organization invests in optimizing its knowledge workers and facilitates opportunities for shared learning experiences, benefits flow from enhanced cooperation and teamwork, allowing competence to blossom (Papacharalambous & McCalman, 2004; Child & Rodrigues, 2005). Yet many organizations today have fallen prey to the 'training addiction' and are more a 'training organization' than a learning organization. The former denotes limited and formalized, instructor-led learning events, whereas the latter embodies various open-ended, multi-sourced, and includes informal or 'organic' learning opportunities (O'Driscoll, 2003). Organizationally, learning and development should be welcomed and integrate formal and informal sources of knowledge.

Retention of KWs

On organizational minds these days is KW retention, especially with rising skilled labour shortages. Fostering learning and engagement is important to retaining the best and the brightest, as opposed to relying heavily on pay and incentive schemes to lure potential workers away from their current employers. Hence, organizational support for *all* employees (including knowledge workers) fosters growth and development, which lends itself to retention. With the abbreviated employment contract, mobile employees seek learning and development opportunities that will help them stay current and maintain their marketability, since long-term commitment for either employees or employers is now rare (Jamrog, 2004). On-the-job learning and experience therefore needs to be transferable to other employment opportunities, to be seen as valuable. Nevertheless, some employers are resistant to sponsor employee learning, rationalizing that 'it will only end up benefiting another company'. The truth is such investments usually drive employee retention; turnover actually begins in the absence of such investments (O'Driscoll, 2003).

Salary alone is not adequate to retain knowledge workers, who ...are not motivated by and do not stay for money alone. They stay because they are engaged and challenged by work. (Ramrog, 2004: 11).

More inspiring to the KW is having a stimulating supervisor who can mentor them; and creating an engaging work environment encouraging retention (Ramrog, 2004). Besides engagement, ensuring work-life balance is increasingly important to today's KWs, many of whom saw their parents accept gold watches or severance pay, after decades of back-breaking loyalty. Consequently, providing 'instant gratification' for a job well done (rather than promises of future rewards) is highly valued by KWs (Kamrog, 2004). To summarize, retaining KWs has much to do with setting expectations, motivating, and developing them (Vora, 2004). A KW's attitude towards the job and company are related to learning and development opportunities, engaging in meaningful work, and having effective supervision (Vora, 2004).

Trends

Communities of Practice (CoP)

More organizations are beginning to appreciate the notion that "...more than 80 percent of adult learning takes place outside the classroom, and much of it is informal, on-the-job learning (Sauve, 2007). The impact of socially-situated learning is evident in communities of practice (CoPs) and mentorship programs to facilitate knowledge sharing. Social interactions resulting from these solutions distribute context-specific information and problem-solving practice. CoPs also alter the traditionally top-down information flow, allowing for multi-faceted dialogue and fluid conversations that invite collegial sharing (Suave, 2007).

Technology supporting the information-sharing inherent to COPs can include email, shareware, and virtual meetings; technology innovatively bridges the geographic distances between KWs (Papacharalambous & McCalman, 2004). Technology-based

communities enhance an organization's collective competence and promote teamwork, helping to facilitate organizational sustainability.

Retiring KWs

With large scale retirement of KW baby boomers, preserving corporate knowledge is being cited as crucial to ensuring organizational success. Retiring Knowledge Worker (RKW) interventions that ease the loss to organizations may mean phased retirement, mentoring programs, recording case studies and narratives, or creating a knowledge management platform.

Regardless of KW age or proximity to retirement, only the *best* tacit knowledge of "... critical, high performing knowledge workers" is valuable (Seidman & McCauley, 2005: 34). In other words, organizations should only save the knowledge of someone who is a top performer. Notably, unspoken tacit knowledge is diffusive and embedded in social interactions, and therefore challenging to accurately capture and apply. Still, RKW narratives under the guise of 'naive new person interviews', and guided coaching can enliven and diffuse RKW knowledge rather than simply storing it in a database, where it can quickly become obsolete (Papacharalambous & McCalman, 2004).

Knowledge Hoarding and KW Myth

Regardless of age not all knowledge workers are interested in willingly sharing their expertise (Papacharalambous & McCalman, 2004). KWs may resist management's attempts to capture and distribute their tacit knowledge or hard-earned explicit knowledge (Child & Rodrigues, 2005). Surrendering tacit assets through externalization, can threaten a KW's sense of power and identity in the organization. Employees cannot be forced to share their knowledge; fostering a cooperative and collaborative work environment encourages knowledge-sharing (Papacharalambous & McCalman, 2004).

Some organizational learning theorists challenge the use of the seemingly mythical term 'knowledge worker', given that continuous learning is needed at *all* levels of the workforce (Esque, 1999). Essentially, they argue that "we're all knowledge workers now" since continuous learning is a mandatory part of life and work in the knowledge age (Thurm as cited in DLS Group Inc, 2007).

Conclusion

In conclusion, a knowledge worker's organizational advantage is defined by tacit knowledge, effective information processing, superior soft skills, and creative problem-solving abilities. Proper management and development of these intangible assets is key to their optimal performance and retention. KW supports include COPs, technology and effective workplace design. Knowledge workers, like many others, are less likely to be loyal over the long-term with the new employment paradigm and a strong labour market (Child & Rodrigues, 2005). Unless knowledge workers have engaging employment experiences, career development opportunities and a supportive manager, their organizations will suffer from costly loss of human capital and potentially devastating attrition. Never before has the motivation and retention of knowledge workers been more critical for organizational sustainability than it is today.

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