

The effects of old-age stereotypes on organizational productivity (part one)

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Abstract

Purpose – *The purpose of this paper is to examine common stereotypes regarding old-age workers and the effect of these stereotypes on organizational productivity, as well as to suggest practical solutions for accommodating old-age workers and increasing productivity in all employees.*

Design/methodology/approach – *This three part paper will present a thorough review of relevant literature (1991-2014, with the exception of two studies from 1976) that were conducted on the topics of old-age stereotyping, the effect of old-age stereotyping on organizational productivity, and methods for adequately motivating and managing old-age workers. Studies concerning psychology theories are also examined in order to provide a framework for practical solutions, as well as demographic statistics on population age and employment trends.*

Findings – *This paper identifies a number of old-age stereotypes that have decreased organizational productivity in empirical studies, including reluctance to change, decreased learning ability, intelligence and memory, poor health and accidents, higher organizational costs, decreased motivation, and low innovation and productivity. Findings also suggest that old-age workers can positively affect productivity, and that low productivity is often a result of stereotyping.*

Research limitations/implications – *The prevalence of old-age stereotyping and its impact on organizational productivity may differ by culture, industry, type of employment, education level, and other factors, and thus further research may be necessary. The literature reviewed may not adequately represent worldwide organizational trends, as the literature is largely comprised of studies performed in North America and Europe.*

Practical implications – *Solutions based on these findings are taken directly from the literature or derived from literature on psychology theories, which include self-determination theory, socio-emotional selectivity theory, and selective optimization and compensation theory. The practical solutions proposed address work environment, motivation, rewards, flexibility, and the loss and gain of resources in old-age workers.*

Social implications – *The proportion of old-age workers is increasing and it is therefore necessary to determine ways to adequately integrate old-age workers in the workforce. Furthermore, this can raise productivity in all employees.*

Originality/value – *This paper demonstrates that old-age stereotyping is both prevalent and detrimental within an organizational context. These findings and solutions can potentially be used by organizations in order to increase individual and overall productivity.*

Keywords *Self-determination theory, Old-age stereotypes, Organizational productivity, Selective optimization, Socio-emotional selectivity theory*

Paper type *Literature review*

Introduction

In most industrialized economies, the average life expectancy has increased. People do not want to retire early, diseases are curable, people are healthier than ever before and hence the age of the workforce is growing quickly. In Canada, for instance, by 2021, people aged 55 and over are projected to represent nearly 24 percent of the working age population, the highest proportion on record (Statistics Canada, 2011). Moreover, the outlook for the USA is an increasing

proportion of workers of 55 years and older (21.2 percent in 2014) (Silverstein, 2008). This increase in demographics is explained by 78 million births between the 1940s and 1960s (i.e. "baby boomers"). Furthermore, the population will not be offset by the proportion of people in succeeding generations (Silverstein, 2008).

These changes in workforce have occurred simultaneously to numerous other changes in the workplace. The most notable changes include downsizing, increased use of technology, and less-hierarchical work structures that often use teams. As a result of these changes in the workplace, training and retraining have become hallmarks in today's organizations. Thus, companies must find ways to cope with an increasingly aged and aging workforce (Feyrer, 2007; Peeters and Van Emmerik, 2008).

The workplace is an essential venue when it comes to achieving equality for people of different culture, gender, age, race, etc. After the other two most common stereotypes, racism and sexism, ageism has become the third most common stereotype used to discriminate against people, especially in the workplace. Ageism refers to making judgments about the actions, characteristics, and desires of people based on their age. Furthermore, these judgments often include negative beliefs rather than positive beliefs about we will refer to as "old-age" workers.

According to Johnson (1993), most employers and probably most employees believe in a rule of thumb that average productivity begins to decline between the ages of 40 and 50. Managers interviewed for the 1995 AARP study were more likely to rate older workers as weak on flexibility, acceptance of new technology, and ability to learn new skills – all traits considered desirable within the workplace. These negative old-age stereotypes held by many employers and co-workers often hinder a company's growth and performance (Posthuma and Campion, 2009).

In social psychology, a stereotype is a thought that can be adopted about specific types of individuals or certain ways of doing things (McCarty and Yzerbyt, 2002). Studies showed that every person uses stereotypes almost all the time. Stereotypes are used unknowingly – sometimes consciously, and sometimes unconsciously. Studies also reveal that much of what enters consciousness comes from one's culture. Furthermore, like culture, it seems that people's minds are split on the subjects of race, gender, class, and sexual orientation (Paul, 1998). This is part one of a three part paper.

Stereotypical beliefs about older workers

Attitudes and beliefs about older workers have been characterized as "ambivalent" (Barth *et al.*, 1993, p. 162) and "mixed" (American Association of Retired Persons (AARP), 1995, p. 19). In other words, several studies agree that older workers are viewed as having both positive and negative attributes. According to Kenrick *et al.* (2002), negative stereotypes about one's group make it more difficult for people of that group to give their 100 percent performance. In the long run, however, the distancing of older employees from their workplace will produce, among other things, less involvement, less interest, and less enthusiasm (Roberson and Kulik, 2007). Some of the most common stereotypical beliefs are described below in more detail.

Older workers are set in their own ways and are reluctant to change

This is one of the most common stereotypes about old-age employees. A study performed by Rosen and Jerdee (1976a, b) demonstrated that undergraduate students perceived a 60 year old worker as more rigid and inflexible than a 30 year old worker and believed that it is more difficulty to get a 60 year old to change his or her behavior. Various other studies have been conducted on older workers' willingness to change with time and their ability to adapt to new things. Some studies conclude that inflexibility is a personality trait, not a result of ageism, while others prove that older workers are more reluctant to change than younger workers. According to Carnevale and Stone (1994), older workers do not fear change, but they fear discrimination. In fact it has been argued that age makes one more flexible since older individuals have had to adjust to a higher number of life changes such as retirement, disease, illness, death of family/friends, and lifestyle. Without the ability to change, this adjustment would have been impossible. Older people may be slower in changing their opinions as compared to young people but they cannot be labeled as inflexible.

According to Pogson *et al.* (2003), managerial careers can be divided into the following three stages:

1. trial stage (< 31 years);
2. stabilization stage (31-44 years old); and
3. maintenance stage (45 years and older).

Since older workers fall within the maintenance career stage, they are assumed to be more cognitively rigid, shorter term focussed, and hence more resistant to change. The extent to which one can change without difficulty decreases from the trial stage to the maintenance stage.

Older workers are slow to learn, less intelligent and more forgetful

Old-age workers are often perceived as slow learners with weak memory; however, age does not determine curiosity or the willingness to learn. Older workers may sometimes take slightly longer to learn certain tasks and may respond better to training methods more suited to their needs. In fact, old-age workers demonstrate better study attitudes. Furthermore, accumulated experience helps to lower training costs (Government of Alberta, 2010). Many people, regardless of age, enjoy new technology whereas some try to stay away from learning new things. Older workers are likely to respond well to innovation if it relates to what they already know, allows for self-paced learning, and provides opportunities for practice and support. Age has very small effect on one's learning ability and intelligence (Neisser *et al.*, 1995). In addition to stereotypes regarding learning ability, intelligence, and memory, older age workers are often perceived to be in poorer health and at higher risk for workplace accidents.

Poor health and accidents

In a study performed by Hassell and Perrewe (1995), results showed that people believe that older workers have fewer accidents. This is contradictory to an earlier 1995 AARP study, which found that managers rated older workers below average on avoidance of workplace injury (AARP, 1995). Barth *et al.*'s (1993) research explained these conflicting results by revealing that when it comes to older workers, managers are concerned with health care costs, their flexibility in accepting new assignments, and their suitability for retraining. According to Statistics Canada (2011), three quarters of Canadians aged 65-74 and two thirds of those over 75 rate their health as good or very good. These figures are even higher for workers aged 45-64. Some studies revealed that among old-age workers, absenteeism is less frequent, although it is longer when it is due to injury or chronic illness (Statistics Canada, 2011).

Results concerning the health of old-age workers often yield conflicting results. For example, in another study (Chiu *et al.*, 2001; Kite *et al.*, 1991), researchers examined that older workers have more health problems on the job. Furthermore, in their study of age stereotypes about physical health, Rosen and Jerdee (1976a, b) found that experimental subjects were more likely to reject the request of an older worker (described as in good physical condition) for a transfer to a physically demanding job than they were to reject the same request from a younger worker.

Older workers are more costly

Older workers are considered to be more reliable (McGregor and Gray, 2002) and to have better business ethics, however, they are also perceived as less flexible, less adaptable, less productive, and to have higher salary expectations than their younger counterparts (Hendricks *et al.*, 2008). Van Ours and Stoeldraijer's (2010) study found that when workers grow older there is an increasing gap between productivity and wages, i.e. wages increase with age while productivity does not or does not increase at the same pace. This creates a gap between productivity and wages. The "labour cost productivity gap" suggests that there is no clear positive correlation between the growing salary of an older employee and their productivity (Conen *et al.*, 2012). This is the reason that employers often see younger workers as offering higher value, as they can provide high productivity, better ability to deal with clients, and better ability learn new skills. Older employees with tenure are also entitled to more vacations and a pension depending on number of

years worked. However, a study by Hatcher (2006) demonstrated that the costs of more vacation time and pensions are often outweighed by low turnover among older workers, and the fact that higher turnover among other groups translates into recruiting, hiring, and training expenses. Furthermore, in addition to being perceived as more costly, older workers are perceived as less motivated than their younger counterparts.

Older workers are less motivated

Older workers are believed to be less motivated and enthusiastic than younger workers (Fritzsche *et al.*, 2009). Older workers are sometimes viewed as having less ambitious career goals and, as a result, are stereotyped as exerting less effort on their jobs (Rabl, 2010; Wong *et al.*, 2008). There is some empirical evidence that young adults display a stronger orientation toward growth while older workers put more energy into preventing losses of resources (Freund, 2006). Greller (2006) found that older workers are less interested in training and career development activities, which could be the result of lack of motivation (Greller, 2006; Maurer *et al.*, 2008).

Aside from the negative stereotypes mentioned above, people often believe that older workers help in maintaining a reliable, dedicated workforce. Other positive stereotypes suggest that older workers possess skills such as loyalty, interpersonal skills, honesty, and the ability to cope with unavoidable stress (McGregor and Gray, 2002). However, older age workers are perceived as less innovative and less productive.

Older people are not innovative or productive

Managers and co-workers often assume that older age employees are less productive and less innovative than their younger counterparts. Even if age does not directly influence job performance, older age is perceived as a phase of lower productivity (Silverstein, 2008). Employers who prefer younger or middle aged workers will neither invest in the development of older workers nor in long-term age management, career planning, or training programs (Taylor and Walker, 1998). According to Czaja (1995, p. 57), "the relationship between age and job performance is complex and far from understood" because much of the data available on this topic is unreliable and biased. For example, studies that rely on supervisors' ratings of performance may be questionable; if the rater has negative attitudes about older workers, their ratings could be affected by their personal beliefs (Hassell and Perrewe, 1995; Siegel, 1993).

Similarly, in a study on the effect of age on performance evaluation and promotion, Siegel (1993) found that there is no significant difference between supervisors' performance evaluations for older managers compared to similar groups of younger managers, however, older managers were less likely to be promoted. Hassell and Perrewe (1995) found that compared to younger supervisors, older supervisors are more negative in their beliefs about older workers. Furthermore, based on his research review, McNaught (1994) concluded that managers almost always underestimate the productivity of older workers. According to McNaught (1994), employers and managers believe older workers are loyal and have good work habits, but are also inflexible and difficult to train.

Stereotyping can have negative consequences on overall company performance and productivity. Now that we have examined stereotypes attributed to older workers, the following section of this paper will focus on describing some of the consequences of stereotyping on productivity. Part two will cover the consequences of negative stereotypes on productivity.

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Abstract

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Paper type *Literature review*

The consequences of negative stereotypes on productivity

Individual work performance or productivity does not depend solely on age, but is rather mediated by different factors that may vary along with the processes of aging (Skirbekk, 2004; Engelhardt *et al.*, 2010; Silverstein, 2008). Productivity is often defined in two ways, where researchers distinguish between “soft” and “hard” skills. Soft skills include social skills, reliability, loyalty, customer-oriented skills, and accuracy. Hard skills are those of mental capacity,

creativity, flexibility, new technological skills, physical capacity, and willingness to learn. Employers believe that older workers have better soft skills while younger workers have better hard skills. Additionally, a study performed by Turek and Perek-Bialas (2013) on employers' perceptions of older workers' productivity concluded that older workers often obtain a higher score in social and managerial skills. However, it is often not enough, as hard skills are a crucial indicator of job performance. Contrarily, in terms learning and receptiveness, Brosi and Kleiner (1999) emphasize that old people share the same capacities as younger people (Brosi and Kleiner, 1999; Appelbaum *et al.*, 2005).

According to Feyrer (2007), labor productivity diminishes as the workforce ages, meaning that there is a negative correlation between the percentage of old workers and overall productivity levels. Aubert and Crepon (2004) demonstrated less extreme results, as they found that productivity peaks when workers are around 45 years old and remains at peak level for the rest of a worker's career. On the other hand, if productivity is measured by means other than performance, such as time to master a task, young workers tend to have more accidents due to their inexperience (Warr, 1993) and are more likely to take risks (Appelbaum *et al.*, 2005). Furthermore, in terms of working days, younger workers tend to take more "voluntarily" absent days, and lastly, in terms of duration in a job, young workers are more willing to leave their job voluntarily (Warr, 1993). This last reason is related to the fact that older people tend to be less attractive to the job market due to the negative stereotypes associated with old-age. Older workers are therefore more likely to stay in their current job and less likely to seek new employment opportunities.

Cognitive ability, experience, and productivity

Warr (1993) recognizes that as workers age, attributes such as physical abilities, adaptability, memory, and selective attention deteriorate. Furthermore, Skirbekk (2004) states that job performance/productivity decreases after the age of 50 when jobs require skills such as problem solving, learning and speed. Job performance does not get affected as drastically when experience and verbal abilities are of higher importance. In general, there is no denial that the body goes through a process of decay where most physiological functions start to deteriorate and some of the cognitive functions as well. However, physiological and cognitive functions do not deteriorate to the point that they affect performance in an older worker (Silverstein, 2008). Indeed, some cognitive abilities of older people are rated highly when it comes to making decisions in a conscious manner and creating strategies due to accumulated work experience. Therefore, the point that Warr and Skirbekk want to emphasize is that age does not jeopardize productivity, and that different types of work require different cognitive abilities and physical strength. For instance, most workers are not always forced to work at an extremely high level of pressure; rather, extremely high-pressure work usually lasts for a short period of time and soon returns to a normal pace. To further illustrate this viewpoint, Silverstein (2008) states that given the fact that older workers have acquired more experience and knowledge; they can pay off in situations when experiential knowledge is needed. For instance, the only scenario where the performance of a worker is diminished is when the demands of a job are not related to previous experience. Another consideration is that the net effect of age-specific productivity determinants depends on how individual skills are used in the work process, how the work is organized, how the individuals interact with other workers and firm-level factors such as technology (Van Ours and Stoeldraijer, 2010).

Interactive skills and productivity

Over the past few decades there has been an increased need for interactive skills; specifically the kind of skills that remain stable through life. In contrast, demands for mathematical skills, which deteriorate throughout one's lifetime, have been decreasing. In light of this, it has been suggested that the growing proportion of older workers will not represent a risk to productivity in the coming years (Daveri and Maliranta, 2007). On the other hand, a study conducted in 1,037 Polish companies from different sectors (services and manufacturing; public and private) where the objective was to measure the perception of old and young workers' productivity among employees, found that productivity in older workers was lower compared to the productivity of

workers under 35 years old (Turek and Perek-Bialas, 2013). Nevertheless, in service companies older worker productivity was better evaluated compared to younger worker productivity.

It is important to acknowledge that the relationship between productivity, worker age, and age stereotypes is highly influenced by economic sector (Mahlberg *et al.*, 2012). Therefore, in light of all the technological changes in the business world nowadays, productivity of an older worker may not be highly rated when knowledge within their particular field of employment is becoming obsolete (Feyrer, 2007). However, contrasting results on productivity show that when innovative companies offer challenging responsibilities to older workers, their level of competitiveness is increased (Backes-Gellner and Veen, 2013). It is also suggested that innovative companies that offer creative tasks and that have a high level of diversity in the composition of the workforce, meaning older and young workers, experience a positive outcome regarding productivity.

Training, career development, and productivity

In companies that have implemented conditions to enhance the productivity of older workers such as training plans and career development, productivity receives a higher score compared to companies that implement measures to accelerate the retirement process (Van Dalen *et al.*, 2010). "When companies tailor programs to the age, knowledge, and experience of older workers, training proves just as effective as and no more expensive than it does for younger workers" (Camevale and Stone, 1994). Dutch companies have a higher percentage of training programs offered to older workers compared to Poland (around 7-16 percent) or other European countries, which promote the hard skills necessary to contribute to productivity and reduce the gap between the productivity of older and younger workers (Van Dalen *et al.*, 2010). Similarly, Mahlberg *et al.* (2012) found that training positively affects productivity of older workers compared to wages. Furthermore, as workers receive training, they develop more skills and capabilities that increase the impact on productivity (Appelbaum *et al.*, 2005). Likelihood of early retirement is reduced as well (Herrbach *et al.*, 2009).

Resources and self-fulfilling bias

Another common stereotype is that older workers are not interested in further developing their careers or participating in training programs. Regardless of whether there is genuine interest in getting trained, the most critical issue related to training for an older worker is lack of access to necessary resources (American Association of Retired Persons (AARP), 1995; Barth *et al.*, 1994; Camevale and Stone, 1994). As mentioned before, negative stereotypes create a self-fulfilling bias; younger workers are offered training opportunities rather than older workers because of this stereotype.

Two common problems can occur when managers and employees attribute poor performance to older workers due to negative stereotypes. First, a company can assign a younger worker to a certain position rather than older worker with a higher level of productivity. The company can erroneously choose a candidate who has performed at lower performance level, which consequently translates to lower productivity (Axelrad *et al.*, 2013). The second common mistake is judging performance based on age rather than on seniority. "This skill depreciation effect is possibly more pronounced, though, for a worker who stays with the same company for a long time" (Daveri and Maliranta, 2007). New employees demonstrate higher performance and learning abilities compared to workers who have worked for a company for a number of years (Daveri and Maliranta, 2007).

Old-age stereotypes have a detrimental effect on productivity, thus it is necessary to suggest and examine a number of practical solutions. Above all, high performance depends largely on motivational factors and interpersonal behavior (Feyrer, 2007). Therefore, it is necessary to examine a number of psychology theories related to these factors.

Psychological theories

In order to approach issues concerning productivity related to old-age stereotyping, it is necessary to discuss and define a number of psychological theories related to motivation and

aging. The solutions in this research paper are directly related to following three motivational theories: self-determinism theory (including the sub theory of cognitive evaluation), socioemotional selectivity theory, and selective optimization and compensation theory. Therefore, prior to suggesting practical solutions, it is necessary to provide a brief overview of these theories and to explain their relevance to the topic.

Self-determination theory (SDT) and cognitive evaluation theory (CET)

SDT suggests that self-motivation occurs when the needs for competence, relatedness, and autonomy are satisfied (Ryan and Deci, 2000). SDT defines intrinsic motivation as the natural propensity for humans to engage in activities, to learn, and to explore for the innate joy associated with doing so. In other words, one is intrinsically motivated when one acts, participates in an activity, or learns something new out of pure enjoyment or interest as opposed to external reasons. Though intrinsic motivation is inherent in all humans, it must be supported via one's environment (Ryan and Deci, 2000). The solutions related to motivation in this research paper largely focus on ways that managers can increase, develop, and support intrinsic motivation in old-age employees.

CET is a sub theory of SDT, and suggests that satisfying the fundamental needs for competence and autonomy facilitates intrinsic motivation. CET builds on SDT, as it suggests that competence only facilitates intrinsic motivation if the actions being rewarded are accompanied by a sense of autonomy. In other words, competence is only intrinsically motivating if the actions involved are perceived as self-determined (Ryan and Deci, 2000). Though, motivators are often unique and personal, they also vary according to one's age and life-cycle stage, thus it is necessary to examine Christensen's Socioemotional Selectivity Theory.

Socioemotional selectivity theory

Socioemotional selectivity theory is a theory of motivation that claims that goals and priorities become increasingly selective as humans enter and experience old-age (Carstensen *et al.*, 1999). As people get older, they tend to focus on goals and activities that are emotionally meaningful and that can be realized in the present as opposed to the future. This is directly related to the motivation of old-age employees, as work must be considered meaningful and goals must be realizable in the present in order to be motivating. Furthermore, this is directly related to SDT, as work must be intrinsically motivating in order for it to be meaningful, as well as SOC theory, which incorporates the two prior theories within its framework for successfully coping with old-age.

Selective optimization and compensation theory

Selective optimization and compensation theory claims that as people age they experience the following:

- a diminishment in physical and cognitive resources, which affects the selection of goals;
- the optimization of old and new resources such as experience and perspective; and
- Compensation regarding the loss of prior resources.

In other words, SOC is defined by the optimization of new resources and compensation for the loss of prior resources (Ng and Law, 2014). SOC theory can be thought of as a model for successfully coping with old-age. If one can draw upon newly acquired resources and can adequately compensate for the loss of resources, they can perform well. Part Three will cover those solutions that address motivation, flexibility, and changes in resources.

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The effects of old-age stereotypes on organizational productivity (part three)

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Abstract

Purpose – *The purpose of this paper is to examine common stereotypes regarding old-age workers and the effect of these stereotypes on organizational productivity, as well as to suggest practical solutions for accommodating old-age workers and increasing productivity in all employees.*

Design/methodology/approach – *This three part paper will present a thorough review of relevant literature (1991-2014, with the exception of two studies from 1976) that were conducted on the topics of old-age stereotyping, the effect of old-age stereotyping on organizational productivity, and methods for adequately motivating and managing old-age workers. Studies concerning psychology theories are also examined in order to provide a framework for practical solutions, as well as demographic statistics on population age and employment trends.*

Findings – *This paper identifies a number of old-age stereotypes that have decreased organizational productivity in empirical studies, including reluctance to change, decreased learning ability, intelligence and memory, poor health and accidents, higher organizational costs, decreased motivation, and low innovation and productivity. Findings also suggest that old-age workers can positively affect productivity, and that low productivity is often a result of stereotyping.*

Research limitations/implications – *The prevalence of old-age stereotyping and its impact on organizational productivity may differ by culture, industry, type of employment, education level, and other factors, and thus further research may be necessary. The literature reviewed may not adequately represent worldwide organizational trends, as the literature is largely comprised of studies performed in North America and Europe.*

Practical implications – *Solutions based on these findings are taken directly from the literature or derived from literature on psychology theories, which include self-determination theory, socio-emotional selectivity theory, and selective optimization and compensation theory. The practical solutions proposed address work environment, motivation, rewards, flexibility, and the loss and gain of resources in old-age workers.*

Social implications – *The proportion of old-age workers is increasing and it is therefore necessary to determine ways to adequately integrate old-age workers in the workforce. Furthermore, this can raise productivity in all employees.*

Originality/value – *This paper demonstrates that old-age stereotyping is both prevalent and detrimental within an organizational context. These findings and solutions can potentially be used by organizations in order to increase individual and overall productivity.*

Keywords *Self-determination theory, Old-age stereotypes, Organizational productivity, Selective optimization, Socio-emotional selectivity theory*

Paper type *Literature review*

Solutions: addressing motivation, flexibility, and changes in resources

Productivity regarding old-age stereotypes is largely related to the following three topics: motivation, flexibility, and the gain and loss of resources. It is necessary to examine the topics from both a managerial and employee perspective, and to examine both the stereotypes involved as well as empirical findings that are both supportive and contradictory. The psychological theories outlined above will serve as a framework for these solutions.

Motivation

As previously stated, decreased overall motivation is often a stereotype regarding old-age employees. Though many studies have demonstrated that old-age employees demonstrate lower motivation than younger employees, lower motivation may be caused due to a lack in new workplace tasks and opportunities caused by this stereotype (Stamov-Roßnagel and Hertel, 2010). According to Lord and Farrington (2006), knowledge workers above the age of 50 stay in the workforce because they enjoy working and take pride in what they do (Lord and Farrington, 2006). Furthermore, old-age workers derive satisfaction by both doing new things and by using their skills to benefit their organization (Lord, 2004). Our approach to motivation includes the following: providing new work tasks and opportunities to old-age workers, provide new learning opportunities, providing flexible rewards and benefits on an individual basis, creating an open and informal dialogue between manager and employees, and creating conditions that optimize perceptions of older workers via public and private recognition of achievements.

Old-age workers are more likely to continue working post-retirement age if their work is intrinsically motivating. According to Lord (2004), old-age workers derive satisfaction by being provided with new tasks and opportunities, and with opportunities to exert their skills. In one study, old-age workers cited trying new things as their most important work priority (Randstad North America, 2001; Lord, 2004). This study cited job satisfaction and family as more important than pay (Lord, 2004). Furthermore, Stynen *et al.*'s (2012) study of 1,782 workers over age 50 demonstrated a negative correlation between intrinsic motivation and wage demands. Socio-emotional selectivity theory suggests that other than when one has financial difficulties, old-age workers continue to work in order to gain personal satisfaction. SDT suggests that competence is directly related to personal satisfaction, thus it is important to delineate tasks that let old-age workers exhibit their competence.

Learning opportunities have also been cited as a major motivator among old-age workers. Continuous learning among old-age workers is the most effective way of retaining old-age workers (Auer and Fortune, 2000; Armstrong-Stassen and Schlosser, 2008). Optional and mandatory training programs that allow older workers to keep up with current technology and processes provide both intrinsically motivating stimuli and provide new opportunities for companies to use their current employees. Old-age workers often cite being "out-of-touch" as a primary concern, and new learning opportunities provide ways of staying current (Ng and Law, 2014).

Rewards

Employees of all ages respond to rewards differently. However, as old-age workers tend to stay in the workforce for reasons related to personal satisfaction and enjoyment as opposed to financial reasons, it is important to tailor rewards to individual preferences and needs (Ng and Law, 2014). Rewards must address the four components of cognitive evaluation theory, which include augmenting one's sense of choice, sense of competence, sense of meaningfulness, and sense of progress. The most effective rewards include public and private verbal praise, positive feedback, skill recognition, demonstrating trust, delegating authority to employees, delegating tasks that are relevant to company goals, celebrating milestones, and celebrating improvement (Langton *et al.*, 2009). Though intrinsic rewards are effective when administered to all employees, they are particularly effective on old-age workers vs younger workers, as younger workers tend to stay in the workforce for financial reasons rather than reasons related to personal satisfaction (Lord, 2004). Furthermore, in order to create an environment that conveys a sense of trust (which is

“Old-age workers are more likely to continue working post-retirement age if their work is intrinsically motivating.”

related to one's sense of autonomy), it is necessary to establish an open and informal dialogue between old-age workers and managers. This can be done through "open door" policies and through measures such as informal lunches between managers and old-age employees (Gransbury, 1995). Conclusively, public verbal recognition and rewards can help demonstrate the effectiveness and competence of old-age employees to the rest of the company, and help create a supportive and nondiscriminatory climate. Though motivation is perhaps the largest factor that affects productivity among old-age workers, flexibility is also an issue that has a direct effect on old-age employee performance and retention, and must be addressed.

Flexibility

Intrinsic motivation is an important consideration regarding all employees, however, flexibility is a notion that is incontrovertibly more important for old-age workers. This section will suggest solutions regarding two issues related flexibility: flexibility in terms of work/task type and flexibility issues related to health.

According to socio-emotional selectivity theory, those who perceive their life as nearing its end reprioritize goals and may devote less energy to their work or leave the workforce altogether if unable to cope with work demands, or if work demands fail to satisfy personal needs (Ng and Law, 2014). Thus, aside from intrinsic motivation, it is also important to provide old-age workers with flexible work hours as well as flexible work tasks. One study performed by Phillipson and Smith (2005) suggests that many older people would like to work, however they fail to find jobs that are flexible enough to meet their lifestyles (Phillipson and Smith, 2005; Mountford, 2011). In another study, old-age employees who experienced a range of flexible work arrangements reported lower stress levels, increased job satisfaction, and less work-family conflict. Furthermore, even employees who did not take advantage of flexible options experienced the same effects – simply having the flexible options had dramatic effects on old-age employees (Business Information Group, 1995). This is particularly important when older workers have caretaking responsibilities, such as when their parents are still alive (Business Information Group, 1995). Flexibility is important in terms of meeting personal satisfaction goals and work-family balance; however, old-age workers cite health as the primary reason for the need for flexibility. According to Stamov-Roßnagel and Hertel (2010), goals regarding health and family rank higher than work. Though stereotypes include diminished productivity due to health in old-age, there are some realities associated with aging, such as difficulty seeing in low-light settings, slower focussing of the eye, reduced hearing, and many others. Older workers are also more prone to cardiovascular disease, pulmonary problems, and deterioration of musculoskeletal systems (Business Information Group, 1995). Therefore, flexibility regarding task type, especially when tasks are physically demanding, is necessary in order to accommodate old-age workers. Furthermore, health benefits, especially for old-age employees, provide a strong incentive to remain in the workforce.

The loss and gain of resources

SOC theory suggests that aging causes losses of certain resources and gains regarding new resources. As people age, they experience a loss in cognitive resources, physical functioning, and mental well-being (Ng and Law, 2014), but gain new valuable resources such as knowledge and experience (Ng and Law, 2014). Companies should attempt to use resources gained by old-age employees to their advantage. One way companies can use new resources gained

“Intrinsic motivation is an important consideration regarding all employees, however, flexibility is a notion that is incontrovertibly more important for old-age workers.”

by old-age workers is by creating mentorship programs, where old-age employees counsel younger employees and aid in their career development. Mentoring opportunities can increase contributions from both old-age mentors as well as younger employees (Ng and Law, 2014). Mentorship programs also allow old-age employees to interact with younger employees and participate more strongly in the company. This is especially important considering the fact that older workers sometimes face difficulties connecting with younger employees, which may decrease job satisfaction (Ng and Law, 2014). Ng and Law (2014) suggest that acquiring new technological skills is a good compensation strategy regarding loss of resources and performance. It is important to reiterate that these solutions focus on looking past age stereotypes while examining motivators in order to accommodate and integrate old-age workers properly and to raise productivity levels.

Planning for old-age

One strategy that can enhance the performance of older employees involves adequately preparing employees for a long career within their company from the age of 40 or younger. Retirement planning and career development planning can ensure employees' roles in the workplace later in life. Other than creating an environment that values older employees, managers can work individually with individuals in order to determine their aspirations later in their careers (Mountford, 2011). Ng and Law suggest that managers should provide employees with training via the SOC model. By creating awareness of changes in needs at different stages in the life-cycle, all employees can learn to value old-age employees, and employees can successfully use new resources gained (Ng and Law, 2014).

Conclusion

As the number of old-age workers is growing, it is necessary to emphasize the barriers to adequate integration of old-age workers. Ageism, as mentioned in the introduction of this paper, is one of the most common stereotypes. The consequences of ageism affect and compromise organizational growth and performance (Posthuma and Campion, 2009). Additionally, this issue makes it more difficult for old-age workers to perform at their best (Kenrick *et al.*, 2002). The most common stereotypes regarding age are: slower learning, decreased physical and mental ability, less flexibility, less adaptability, less motivation (Fritzsche *et al.*, 2009), less innovativeness, and less productivity in relation to wage demands compared to younger workers (Hendricks *et al.*, 2008). These stereotypes all suggest that people perceive old-age workers as less productive compared to their younger counterparts. As mentioned before, individual work performance does not depend entirely on age, but rather is mediated by different factors that vary throughout life (Skirbekk, 2004; Engelhardt *et al.*, 2010; Silverstein, 2008). Nevertheless some argue that productivity decreases as the workforce ages, though this often occurs due to self-fulfilling biases.

There is a shared view that recognizes the fact that as workers age, some abilities tend to deteriorate, especially those related to hard skills (Warr, 1993). Although this deterioration process manifests, it is not evident that productivity and performance in older workers is affected (Millanvoye, 1998; Silverstein, 2008). One important consideration is that when evaluating the performance of older workers, it is important to have in mind which economic sector they work in (Mahlberg *et al.*, 2012). Moreover, performance is often well evaluated in companies that implement conditions to enhance the productivity of old-age workers, such as training plans and career development opportunities (Van Dalen *et al.*, 2010).

Nevertheless, when it comes to improving performance, motivation plays a key role. For this reason, we felt it necessary to base our solutions on self-determinism theory (including the sub theory of cognitive evaluation), socio-emotional selectivity theory, and selective optimization and compensation theory. SDT defines intrinsic motivation and suggests a number of factors that influence it. Socio-emotional selectivity theory suggests that priorities and goals change as one enters old-age. SOC theory suggests older workers can be productive if they learn to adequately exploit new resources and compensate for lost resources. Practical solutions that take these theories into account include: providing new work tasks and opportunities, new learning opportunities, individualized rewards, creating an open and informal dialogue between managers

and employees, and recognizing achievements and high performance both publically and privately. Apart from intrinsic motivation, it is also recommended that employers provide flexible work hours as well as flexible work tasks. Finally, we suggest that organizations take advantage of gained resources among old-age employees by creating mentorship programs (Ng and Law, 2014). Further considerations include offering improved health and ergonomic conditions (Turek and Perek-Bialas, 2013), providing career development and retirement from a younger age, and promoting a work environment that values old-age workers in order to overcome negative stereotypes (Appelbaum *et al.*, 2005).

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