

Age differences in career activities among higher-level employees in the Netherlands: a comparison between profit sector and non-profit sector staff

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The present study describes age differences in the occurrence of career activities among profit sector and non-profit sector employees in the Netherlands. Three different types of variables have been studied, i.e. individual, job-related and organizational variables. Hypotheses have been tested with original survey data from 423 profit sector employees and 136 non-profit sector employees. The employees are all working in higher-level jobs in large organizations.

Overall, we may conclude from this study that the differences between profit sector and non-profit sector workers are not consistent at all. For some factors the situation is more advantageous for profit sector employees, whereas for other factors the outcomes point in the opposite direction.

Regarding age effects, we have found that, in general, for profit sector employees the differences between starters (20–34 years) and middle-aged workers (35–49 years) are not univocal, whereas the differences between middle-aged workers and seniors (over-fifties) imply that the amount of individual initiatives and organizational activities is less for the latter group of employees.

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When the three age groups are compared for the non-profit sector employees, most factors do not vary significantly. For the factors where the F-test is found to be significant, by and large, the situation regarding the possibilities for a further career development is worst for the seniors.

Introduction

In an ever changing, global and technologically demanding business environment, sourcing and retaining talent constitutes the competitive battleground. One way to adapt the activities of firms to the exigencies of the rapidly changing demands in their environment is to increase the employability of their personnel. In order to enhance the individual career development of all workers, special efforts have to be taken, both by the worker himself or herself and by the management of the organization.

In this study, differences in career activities aimed at Dutch employees working in the profit versus the non-profit sector will be examined. The outcomes might lead to recommendations regarding the career development process of individual employees while taking into account the specific characteristics of the two types of organizations.

An examination of conference proceedings and relevant journal articles in the field points out that there is a serious lack of career research focusing on the comparison of profit and non-profit sector organizations. This is in spite of the fact that today public organizations employ a substantial part of the workforce, implying that the sector is an integral part of any civil society. The public sector consists of all 'organisations owned by local, regional and central government authorities' (OECD, 1997, p. 259). Hence, distinctions between public and private organizations should be the focus of sustained interest (Rainey, 1989, 1991; Rainey *et al.*, 1976). Many times empirical outcomes on profit or private sector employees have been generalized to non-profit sector employees without testing the validity of these generalizations. This implies that personnel management recommendations for non-profit employees are primarily based on the human resource management (HRM) blueprint of profit sector staff policy.

The literature indicates that there are still considerable gaps in the development function, both in the profit and in the non-profit sector (see Van der Heijden, 1998). Only when one starts to study employee development taking into account the respective strengths and weaknesses in the two sectors, can responsible agencies be advised on the developmental needs of their staff. Both private and public sector organizations continually face new pressures to adapt and innovate. Yet there is one complicating factor that is unique to the public sector: the nature of work is complex because it often produces intangible products that defy calculation (Kee & Black, 1985). The latter does not at all imply that the practice of management in the private sector is simpler, but just that the public sector has a different operating environment. The complexity in the public sector is in large part a result of the fact that it has ill-structured and 'wicked' problems, and the nature of public policy programmes is such that 'the result of any one policy analysis will probably be that the original problem evolves into others, so that rather than any one discrete analysis, there will be many iterations' (Hughes, 1998, p. 138).

The importance of the career development function in personnel management in both private firms and public organizations is well established (see e.g. Berman *et al.*, 2001; Daley, 2002). As individual capacities become increasingly recognized as an integral part of the strategy-performance continuum, and thus at the core of the business functions of working organizations, developing supervisors' HRM skills becomes more and more crucial (Bhatta, 2002).

Yet the centrality of the HRM function has some limitations. The first one is the difficulty of measuring the impact of individual and managerial career activities (see e.g. Faerman & Ban, 1993; Van der Heijden, 1998). 'The inputs (such as budget spent on T&D, number of courses on offer, number of employees attending specific courses,

etc.) are easy enough to quantify but the impacts of these inputs (and particularly what are termed "soft impacts") are not so clearly measured' (Bhatta, 2002). Moreover, most personnel information systems do not include formal mechanisms to link competencies to available job opportunities for the staff members in order to better target the demand. More specifically, the databases do not facilitate forward-looking in that they still do not give opportunities related to competencies necessary for career mobility (Bhatta, 2002).

This implies that management in both profit and public sectors should be more oriented towards the core of the training and development function, namely the proper identification of people, skills gaps, aspirations and opportunities, and appropriate mechanisms to align all of them (Bhatta, 2002). This is important because it determines the shape, size and talent depth of the potential pool of future private sector and public service staff.

This brings us to the formulation of our central research questions: 'Are there any differences in the amount of individual career activities and organizational developmental opportunities between employees who are working in private sector organizations and employees who are working in public sector organizations?' and 'Do categories of age differ from each other regarding the amount of distinguished individual career initiatives and organizational developmental opportunities?'

Theoretical outline and hypotheses concerning differences between individual, job-related and organizational factors

This section presents a justification of the relevance of the factors in the light of one's professional development. In addition, the operationalization and scale reliability, if applicable, are given. For each career factor, the theoretical outline is concluded with accompanying hypotheses concerning the occurrence of the factor in three different age groups. Because of the highly explorative character of our study and the pioneering operationalizations of the career factors, we draw mainly upon our own previous empirical research. This is why the hypotheses tend mostly to be framed with the use of a degree of argumentation arising from our own insights and reasoning. We refer to earlier publications for detailed information concerning theoretical foundations (Boerlijst *et al.*, 1993; Van der Heijden, 1998). In this article, condensed forms will be presented in order to avoid repetition and to leave enough room for a discussion of the outcomes of the study.

As far as the differences between profit and non-profit sector employees are concerned, no hypotheses have been formulated. Notwithstanding some common-sense reasoning regarding the difference between career development investments in private and public sector organizations – implying that the latter, because of the lack of profit aims, invests less – empirical proof for this type of reasoning is lacking. Large numbers of in-depth interviews with top management representatives indicate that strong and weak examples of career management policies can be found in both profit and non-profit organizations (Boerlijst, 1994; Boerlijst *et al.*, 1993).

The attitude of line managers does not seem to be significantly related to sector but merely to age-related stereotyping. It is important to study empirically the relationship between the amount of career development efforts that are undertaken by supervisors and by employees themselves, and the age of the individual employee. Whereas in previous analyses (see Van der Heijden, 2001, 2002a, 2002b, 2002c, 2003a, 2003b) the data regarding profit and non-profit sector employees have been aggregated, a study in which the different age groups are compared separately for profit and non-profit sectors could enhance our understanding of the seriousness of age-related stereotyping.

Participation in social networks

Social networks involve interactions where the content of the relationship may be work-related, social or a combination of both. People may gather together in functionally differentiated groups because they have to interact to accomplish an organi-

zationally defined task, or for social and informal reasons. It is important also to recognize the social reasons for networking because of the important buffer function that may be exerted by means of contact, development of identity, control of stress, burden, etc.

Where knowledge held by professionals from different domains is combined, different types of occupational expertise can be applied to the day-to-day problem-solving processes. Networking means learning new frames of reference and listening to people who see and experience things differently. In consequence, the psychological demands may be high: networking involves exceeding the bounds of one's familiar area or discipline.

'The quality of an organisation as an effective information-processing vehicle depends in large part on its social infrastructure. In its turn, this infrastructure depends above all on the people taking part, on their qualities as partners and co-workers involved in social interaction with others both inside and outside the organisation' (Boerlijst, 1994, p. 271). That is to say that the success of a social network is dependent on the ability of employees to exchange and to apply relevant information, especially where rapid technological changes or reorganizations are taking place.

It is expected that the amount of network participation is the highest in the case of *middle-aged* employees (hypothesis 1). When people embark on a professional career, they have to invest time in learning the 'ins and outs'. Most of the time, the starters are occupied in refining their contribution and in enlarging the quantity of their knowledge and skills. Bit by bit, they become acquainted with their professional area and with valuable associates and key figures in their specific fields offering prospects for collaboration.

People in the midlife period have greater opportunities to engage in networking because of their acknowledged contribution. They have, so to speak, demonstrated their value and their potential. The seniors, on the other hand, are inclined to hold back from participation in view of approaching retirement.

Participation in training and development programmes

'Nowadays everyone should allow for the considerable likelihood of there being drastic changes of course in his or her own career' (Boerlijst, 1994, p. 265). The so-called half-life of professional education has become extremely short. In some professional fields, the relevant base of expertise is even doubling every 3 or 4 years. For example, in 1960 the half-life of engineering education was about 5 years, compared with more than 10 years a decade earlier (Zelikoff, 1969). It is probably even lower today, given the rapid changes in technical expertise in recent years.

The more up-to-date one's knowledge and skills are, the better are the opportunities for employability in different professional areas. This is why a very important area of vocational training and development has to be the broadening of learning programmes to overcome too much specialization or 'experience concentration' (Thijssen, 1996). In order to be effective, training programmes should be aimed not only at specific professional knowledge and skills, but also at acquiring the ability of *transfer*.

And yet, training and development courses are predominantly geared to an employee's own function area (Boerlijst *et al.*, 1993). In the case of courses in a different area or those more geared to personal development (which can bear fruit in a wide variety of future jobs), a large number of employees are excluded, especially the older ones. There is scarcely any question of development in areas other than the already familiar one. These workers appear to be predominantly focused on functions and functioning in the here-and-now and not on future employability questions. This observation may have serious consequences. After all, in many cases, a field of experience loses its significance for the organization in the course of time. If the expertise gained is not transferable to another field, the employee in question runs into problems (Boerlijst & Van der Heijden, 1996).

In order to be valuable, training has to be in line with the company's vision and be proactive, which means anticipating technical and cultural changes rather than being

reactive (Kerr & McDougall, 1999). Investments in human capital seem to be positively associated with establishment productivity (Lynch & Black, 1995).

In line with the study 'Over-forties in the organization' (Boerlijst *et al.*, 1993), hypothesis 5 of the present study states that the amount of time spent on learning activities diminishes with age.

Career initiatives

Nobody knows with any precision what knowledge and skills are needed in the long run, because nobody knows what the organization and, on a larger scale, society, will be doing in the future. It is this sense of short-termism that makes it vital for employees to take control of their own career because only they can, to some degree, see their own future, at least in terms of their opportunities and capabilities. They alone are fully responsible for the development of the necessary occupational expertise to position themselves in the world of work. Employees should familiarize themselves with matters that have to do with how and in which direction markets, products, organizations, functions and qualification requirements are changing.

Individuals with a high degree of initiative are willing to invest time and money, and even sometimes to use holiday time, to participate in career activities. They are convinced that participation in these activities is an important asset and that they themselves should be actively involved in undertaking and maintaining them (Spencer & Spencer, 1993).

When professionals are studied longitudinally, there is evidence that their expectations and motivation for career advancement decline with age. An AT&T study of managers (Bray & Howard, 1980, 1983; Howard & Bray, 1988) indicated that managers' expectations on career advancement decreased on average within the first 5 years. Expectations regarding the possibilities for advancement are becoming more realistic. The managers, in this case, appeared to become increasingly aware that in a pyramid organization such as AT&T, the possibility for continued advancement into upper levels of management becomes more and more unlikely. With the passing of time, a slight decline in motivation or expectation of advancement is observable.

The fact that most employees still think in terms of vertical advancement, together with the lack of opportunities in this respect, gives rise to the expectation of a negative relationship between age and the number of career initiatives (hypothesis 3). Most of the time employees are willing to invest in activities that are expected to lead to upward mobility. The increasing flattening of organizations, together with the unwillingness to invest time and energy in career activities that are no longer expected to lead to an improvement on the career ladder in a vertical sense, implies that employees tend more and more to refrain from these initiatives as they grow older. They have, so to speak, adjusted their expectations and motivation and engage mainly in maintaining their occupational expertise at the already attained and required level.

Career history and mobility pattern

One of the ways in which employees can enhance their career prospects is by making a number of career moves. There are four main reasons for the positive effects of mobility: (1) it increases the employees' employability; (2) it helps the employees build networks inside and outside the organization; (3) it permits transfer to a more powerful function in an organization with better prospects; and (4) mobile employees gain a wider spectrum of experiences and competencies in their journey inside and between organizations, compared with employees who remain within the same job, department or organization.

However, each career is person-specific, and there are varying forms of career steps, mobility or flow patterns (see e.g. Schoemaker & Geerdink, 1991). Both theory and empirical results indicate that for different types of careers (dependent on type of occupation or industry sector) there are optimum mobility patterns. A career change stimulates a person's motivation to learn because there is likely to be a real or per-

ceived gap between the individual's knowledge and skills and the demands of the new job (Van Velsor & Musselwhite, 1986). However, one might infer that the ideal time per position spans a rather wide range.

Several important points can be made concerning the frequency of moves to new positions (Dewhirst, 1991). First, the appropriate frequency of position changes depends on: (1) the degree to which positions present a new challenge; (2) the speed at which individuals grow in competence and self-confidence; and (3) individual differences regarding the desirability experienced as to specialist versus generalist roles. However, the generally fragmented nature of research on mobility patterns results from a lack of conceptual development in the field. Research that generates outcomes that can be generalized across different functions or job types is needed.

Beer *et al.* (1984) have found that there is probably a curvilinear relationship between velocity and the development of occupational expertise. That is to say that slow movement of personnel (laterally or vertically) or too rapid movement is likely to result in too few opportunities for employees to enhance their knowledge and skills. Where upward mobility is concerned, rapid movement or the so-called *job hopping* that is experienced in fast-growing companies can easily result in individuals progressing faster than their capacity to develop expert performance, leading to the well-known Peter Principle (people are promoted to their level of incompetence) and a resulting loss of investment by the company.

If individuals are moved too often, much of their energy is absorbed in 'learning the ropes'. Conversely, an overly long time in one position leads to isolation and sterility in thinking. That is to say, investing a great deal of time and energy in a particular area of knowledge and skills may have the result that switching over to another function or the enlargement of a person's domain of expertise in a broader sense are no longer viable propositions (see also Boerlijst *et al.*, 1993; Thijssen, 1996).

As regards the factor *average period spent in each job*, age is expected to be positively related to the average duration of one job (hypothesis 4). The older the employee, the longer he or she will stay in one and the same job on average, meaning that less frequent career moves are made.

Learning value of the present job

The value that a function has as a nutrient for the employee's further professional development is termed *the learning value* of the function for the employee (Boerlijst *et al.*, 1993, p. 57). It is determined by the nature of the work as characterized by job assignments and the degree of challenge and growth they provide. Unfavourable working conditions and being allowed too little time to extend them beyond the scope of 'normal' work tends to be to the disadvantage for many employees. In practice, nothing can then come of what might have been a development.

However, the study by Boerlijst *et al.* (1993) found that the relatively low learning value conveyed by functions for the development of new expertise, especially in the highest age group of over 50-year-olds, is a considerable problem. The percentage of employees with a function offering too few opportunities for acquiring new learning experiences and, more specifically, for learning new expertise, is high.

In a relatively large number of cases, the function does, in principle, offer opportunities for growth in occupational expertise, but there are serious impediments or inhibiting circumstances. There are not enough learning impulses, and the function leads to monotony and probably holds fewer interests for the organization as well. At such a time, an employee is at a dead end and the organization loses the opportunity to take advantage of his or her additional capacities and opportunities for development.

It is predicted that the degree of learning value in one's present job diminishes with age (hypothesis 5). The older the employee, the less his or her job provides a nutrient for building up new professional knowledge and skills.

Social support from immediate supervisor

At the heart of the learning climate lies the relationship between the employee and his or her immediate supervisor. Good supervisory feedback and good communication between the two enhance the opportunity for advancement in the worker's capabilities. Social support from one's superior can generate a general feeling of satisfaction and faith in one's further career development. Rewards such as thanks, praise and recognition for good work at the time rather than left to annual performance reviews enable employees to reflect on their performance and to adjust it with a view to further growth.

It is advantageous when managers foster a culture of mutual trust and support (Bratton & Gold, 1994). They should be constructive in their appraisal and should use effective and supportive approaches to help employees to fulfil their tasks. This means that supervisors must be able to provide feedback in such a way that employees are enabled to adapt their performance (Blancero *et al.*, 1996). By providing information in a structured way and by offering challenges geared precisely to the employee's capacities at a given time, the management may be able to accelerate a further growth (Sloboda, 1991). All kinds of learning require feedback to be effective. In an environment where poor or even delayed feedback is given, learning may be slow or even non-existent (Ericsson & Smith, 1991).

In line with our previous study on employees aged over 40 (Boerlijst, 1994; Boerlijst *et al.*, 1993), we hypothesize that the degree of social support from one's immediate supervisor declines when the employee gets older (hypothesis 6). Most supervisors seem to fall short in devoting attention to the functions and functioning of their older workers. Particularly in the case of seniors, supervisors appear to be uncooperative and unhelpful with regard to their further professional development.

Social support from near colleagues

Further expertise development is largely based on the progressive internalization of information gained through social interaction with colleagues. Exchange of information and positive feedback processes during work can make a major contribution to the formation of relevant knowledge and skills. The majority of our abilities stem from the social transfer of other people's knowledge through a variety of cultural processes – some formalized in education but many of them being very informal (Gaines, 1988).

In each working organization, one's peers must bear the responsibility of providing reliable information on current technical developments, for example, by drawing one's attention to useful new journals or training courses. Peers must be willing to act as sounding boards for new ideas based on their own experiences. In this way, they can be highly valuable sources of information and help. When colleagues are prepared to provide feedback on each other's work, such as regular reviews of progress, they convey a feeling of being interested in and of valuing the work and its output.

In the case of middle-aged employees, determination of possibilities for advancement in one's professional field seems to be a central theme (Schein, 1978). Because vertical progress is not within everyone's reach, owing to the increasing flattening of organizations, this gives rise to a great deal of competition between near colleagues. The individual's social network, so to say, is subject to change in the course of life (see also Sarason *et al.*, 1987).

Accordingly, we expect a decrease in social support from near colleagues when employees enter the mid-career phase. The difference between the middle-aged employees and the seniors is envisaged as being minimal (hypothesis 7).

Organizational facilities

Organizational policies should be aimed at continuing expertise development. For an organization to be attractive to employees, it should provide learning opportunities

and chances to grow in knowledge and skills, and to improve their capabilities. There are several strategies that can be used in order to promote growth and to prevent obsolescence (Arvey *et al.*, 1984).

As regards network participation, there is no doubt that an organizational environment that facilitates open communication and exchange of ideas among professionals and between management and professionals fosters the growth of occupational expertise. Moreover, in organizations with facilities for network participation, experts are acknowledged for their contribution to these networks and for their credibility as expert team members. Access to new information is critical and much of the technical information needed by professionals comes from interactions with colleagues (Allen, 1977; Kaufman, 1974, 1983). For this reason, organizations should pay closer attention to information dissemination systems and the latter's structure.

As for training and development programmes, it seems that many organizations heavily invest in on-site and off-site training and education in their employees' domain (Carnevale *et al.*, 1990). A high degree of specialization among professionals may result in short-term competence but may be dysfunctional to their career development in the long run. Emphasis should increasingly be on enlarging employees' tasks by flexible 'know-how' acquired from training and education in external expertise areas, and in the domain of personal and social skills. These types of training and education make them less vulnerable in times of change. Training participation aimed at experience broadening contributes to professional flexibility (Thijssen, 1996).

The above-mentioned types of organizational facilities can really enhance the individual's employability. Even where companies *want* to keep the same employees for the long term and promise them a job for life, they can only afford this if they keep them growing and learning through elaborate training and retraining. In short, companies should keep them *employable*.

Consistent with the human capital theory (Becker, 1993; Schultz, 1971) and what has been mentioned as regards the 'pay-off period' of investments (Boerlijst *et al.*, 1993; Van der Heijden, 1998), hypothesis 8 of this study states that the availability of organizational facilities diminishes with age.

Attention from immediate supervisor for a further career development

The idea of adapting to an unknown future and of enlarging the extent of flexible expertise is central to the concept of a learning organization. The work of Argyris and Schön (1978) and more recently that of Pedler *et al.* (1991) and Senge (1990) confirm that a learning organization focuses on flexibility, innovation and creativity. A learning organization can be defined as 'an organisation, which supports, stimulates and empowers the individuals within its reach to acquire all the knowledge, values, skills and understanding they will require throughout their working lifetime' (Hagström, 1995, p. 64).

In earlier research (Boerlijst, 1994; Boerlijst *et al.*, 1993) it was found that shortcomings on the part of supervisors seriously endanger the mobility and employability of most non-executives at higher levels of functioning. It was hypothesized that these shortcomings cause pitfalls in the career of many highly positioned employees, limiting or hampering their (cognitive) development.

With a policy that manages to prevent funnelling of experience and expertise, the ageing of the working population does not need to pose a threat. An early, multilateral and multidimensional development of occupational expertise in varying worlds of experience makes older people not only better able to cope, but also more valuable. Concretely, supervisors need to stimulate employees to participate in training and development programmes, to the exchange of information and to think about following career steps. A basic requirement for growth is the formulation of an individual development plan that is drawn up by the employee in cooperation with different organizational bodies (Stickland, 1996).

Management perceptions regarding the possibilities for further education are often negative where the older employee is concerned (Thijssen, 1996). Accordingly, older

workers are less stimulated to participate in training and development programmes (Boerlijst *et al.*, 1993; Onstenk, 1993; Plett *et al.*, 1991).

We previously mentioned the human capital theory (Becker, 1993; Schultz, 1971) implying that investments in educational activities decrease with the age of the employee. Although the factor *attention from immediate supervisor for a further career development* includes more than stimulating educational activities, we expect a decrease as the employee grows older (hypothesis 9). It is expected that the shorter the pay-off period of the career investments becomes, the more the immediate supervisor gives up stimulating the older employee to take part in career activities.

Research methodology

The next two sections will provide some general information about the respondents and the data collection, and about the survey.

Respondents and data collection

In each working organization involved in this study, once the agreement to participate was made, a discussion was carried out with a representative from the personnel department. The criteria for participation were discussed and samples of employees and their immediate supervisors appropriate for our questionnaires were selected. These criteria concerned the level of functioning of the employees (higher-level employees), with the target of an equal distribution over three age groups (20–34 years, 35–49 years and 50+) and a reflection of different types of occupations in the organization.

The reason for limiting the selection to employees who are active at a higher level of functioning or in a higher management position, excluding employees from lower levels, is that in order to study data which may be generalized for future use in organizations, allowances are made for the possibility that the present workers, particularly the older ones, will be difficult to compare with the employees who will be hired by companies in, say, 20 years' time (cf. Boerlijst *et al.*, 1993 for a thorough discussion on this matter).

Because this study is particularly interested in the consequences of growing older, the author decided to make a comparison of three successive age groups of the working population, namely the *starters* (20–34 years), the *middle-aged* (35–49 years) and the *seniors* (50+). By comparing these three age groups, the whole professional career is covered.

The category of employees aged 35–49 years roughly corresponds to a category that is indicated by the term 'mid-career' (Hunt & Collins, 1983; Janssen, 1992). Psychogerontological research has shown that the midlife experience is not strictly bound to a particular age. Some people already experience major changes in their thirties (mid-thirty crisis), whereas others only note them when they are 40 or almost 50 (Munnichs, 1989, p. 224). In order to make a division into age groups with a similar range and at the same time frame a division with a separate category for these middle-aged employees, the above-mentioned division has been proposed. Table 1 shows the number of respondents and the response rate for each organization.

Despite the effort to obtain a balanced division of the two sexes in this study, from the total sample, 83.4 per cent of the respondents are male and 16.6 per cent are female. However, it is generally known that in the higher regions of the organization men fulfil most functions. In this respect, the composition of our sample can be interpreted as an advantage because the division is in fact really representative of the actual situation in Dutch working organizations and is consequently more accurate.

The age distribution in the final sample of individual employees is as follows: (1) starters, 27.4 per cent; (2) middle-aged, 45.8 per cent; and (3) seniors, 26.8 per cent.

Table 1: Number and response rate of employees per organization

Organization	Number and response rate (%) of employees
Profit sector	
Akzo Nobel	93 (30.5)
Hewlett Packard	42 (65.6)
Philips Communications and Processing Services	81 (25.4)
Rabobank Organization	72 (75.0)
Unilever Research Laboratory	135 (35.0)
Public sector	
Ministry of Justice	53 (31.4)
Ministry of Transport, Public Works and Water Management	64 (37.2)
University of Twente	19 (100.0)
	Total:
	559 (50.0)

Measures

For the measurement of the variable *participation in social networks*, the following item was used: 'Which networks (committees, work groups, project groups and other social networks) do you participate in?' This resulted in a totality of internal (inside the organization) and external (outside the organization or concern) social networks.

The operationalization of the variable *participation in training and development programmes* consisted of three items: (1) 'How many days in the past 5 years have you spent on training and development courses in your own domain?' (2) 'How many days in the past 5 years have you spent on training and development courses in a different or new job domain?' and (3) 'How many days in the past 5 years have you spent on training and development courses aimed at your further personal development?' This resulted in a score for the total number of days that have been spent on training and development programmes within the past 5 years.

For the measurement of the variable *career initiatives*, 14 items were used: (1) requesting social support; (2) expanding the social network; (3) requesting information facilities; (4) creating opportunities for training and development; (5) favouring the work climate; (6) changing the work content; (7) initiatives for mobility to another function; (8) initiatives for participation in social networks; (9) initiatives for training and development in one's own job domain; (10) initiatives for training and development in different or new job domains; (11) initiatives for further personal development; (12) initiatives for furtherance of mobility to another function; (13) making plans for the future career; and (14) initiatives for the remaining career activities. For each item, a 2-point rating scale was used: 1 = 'no' and 2 = 'yes'. The reliability index for the total item-set, using Cronbach's α , is 0.67.

In this study, two variables pertaining to the employee's career history and mobility pattern were included. The first one comprises *the total number of jobs* performed throughout the career, whereas the second one refers to *the average period spent in each job*. The score on the latter variable is computed by dividing the total number of years of employment by the number of jobs performed.

After the computation of the new variable, the answers were divided in three categories, according to the average stay in one and the same function, the 3-point rating scale being: (1) average period spent in each job is less than 3 years; (2) average period spent in each job is 3–5 years, and (3) average period spent in each job is 5 years or more.

To measure *the learning value of the function*, nine items were formulated in terms of their content, all referring to the amount of nutrient that a function offers for the further development of the worker. Table 2 presents the different scale items.

For the measurement of the variable *social support from immediate supervisor*, four items were used: (1) 'Is your immediate supervisor able to evaluate the value of your work and its results?' (2) 'Does your immediate supervisor regularly express an opinion on your work?' (3) 'Is your immediate supervisor in general ready to help you with the performance of your tasks?' and (4) 'Does your immediate supervisor regularly give you supportive advice?' For the first item, a 6-point rating scale was used, ranging from: '1 = not at all' to '6 = very much'. For the second and fourth item, a 6-point rating scale was used, ranging from: '1 = never' to '6 = very often'. For the third item, a 6-point rating scale was used, ranging from: 1 = 'In my opinion, he or she shows little willingness to help me' to 6 = 'In my opinion, he or she is very willing to help me'. The reliability index for the total item-set, using Cronbach's α , is 0.78. The variable *social support from near colleagues* has been measured by exactly the same four items, with obviously 'near colleagues' instead of 'immediate supervisor' in the item formulation. For this variable the reliability index, using Cronbach's α , is 0.74.

For the measurement of the variable *organizational facilities*, four items were used, with the following formulation for the first three items: 'In your opinion, are the possibilities in your organization to participate in . . . sufficient?' The type of facilities on the dotted line being respectively social networks, training and development courses in your own job domain, and training and development courses in a different or new job domain. The fourth item was phrased as follows: 'In your opinion, are the possibilities in your organization for further personal development sufficient?' For each item, a 3-point rating scale was used: 1 = 'no', 2 = 'yes, in theory, but . . .' and 3 = 'yes'. The reliability index for the total item-set, using Cronbach's α , is 0.68.

For the measurement of the variable *attention from immediate supervisor for a further career development*, 24 items were used:

1. 'Have activities concerning your career, your function or your functioning been initiated by your immediate supervisor during the last 5 years?'
2. 'Have activities concerning your participation in social networks been initiated by your immediate supervisor during the last 5 years?'
3. 'Have activities concerning your participation in training and development programmes in your *own* job domain been initiated by your immediate supervisor during the last 5 years?'
4. 'Have activities concerning your participation in training and development programmes in a *different* or *new* job domain been initiated by your immediate supervisor during the last 5 years?'
5. 'Have activities concerning your further personal development been initiated by your immediate supervisor during the last 5 years?'
6. 'Have activities concerning your mobility to other functions or positions been initiated by your immediate supervisor during the last 5 years?'
7. Discussions on career development in the period prior to this 'employee-supervisor relationship'
8. Discussions on career development in the *short* term
9. Discussions on career development in the *medium* term
10. Discussions on career development in the *long* term
11. Discussions or agreements on the enlargement of the degree of social support
12. Discussions or agreements on the enlargement of the employees' social network
13. Discussions or agreements on the supply and transfer of information
14. Discussions or agreements on training and development programmes
15. Discussions or agreements on the improvement of the work climate
16. Discussions or agreements on the modification of the job content
17. Discussions or agreements on the mobility to another function
18. Activities on the enlargement of the degree of social support
19. Activities on the enlargement of the employees' social network

Table 2: Operationalization of the variable 'learning value of the function'

Learning value of the function	
Items ($k = 9$)	<ul style="list-style-type: none"> * Do your present function and your responsibilities require further development of your abilities? * Does the experience you have gained in your function offer you a nutrient for developing or acquiring new abilities? * Does this function offer you some possibilities to switch to other functions in your business unit because of the opportunity that it provides you to expand your abilities? * Does this function offer you some possibilities to switch to other functions <i>inside</i> your organization or concern because of the opportunity that it provides you to expand your abilities? * Does this function offer you some possibilities to switch to other functions <i>outside</i> your organization or concern because of the opportunity that it provides you to expand your abilities? * Does this function offer you some possibilities to switch to other functions at a <i>higher</i> level because of the opportunity that it provides you to expand your abilities? * Does this function offer you some possibilities to switch to other functions at an <i>equivalent</i> level because of the opportunity to expand your abilities? * Does this function only offer a limited opportunity to expand your abilities with respect to a switch to other functions? * Do the experience and abilities that may have to be built up offer a very limited opportunity to switch to other functions?
Scales	<p>For the first item, a 3-point rating scale has been used:</p> <ol style="list-style-type: none"> (1) 'No, the abilities I already possess are sufficient for this function and this area of responsibility'. (2) 'No, it would not be a bad thing, but "require" is too strong'. (3) 'Yes, my function and my responsibility areas require further development of my abilities'. <p>For the second item, a 3-point rating scale has been used:</p> <ol style="list-style-type: none"> (1) 'No'. (2) 'Yes, in theory, but . . .' (3) 'Yes'. <p>For the third to the ninth item, a 2-point rating scale has been used:</p> <ol style="list-style-type: none"> (1) 'No'. (2) 'Yes'.
Reliability index total item-set	Cronbach's $\alpha = 0.59$

20. Activities on the supply and transfer of information
21. Activities on the creation of possibilities to participate in training and development programmes
22. Activities geared to the improvement of the work climate
23. Activities geared to the modification of the job content
24. Activities geared to the mobility to another function.

For each item, a 2-point rating scale was used: 1 = 'no' and 2 = 'yes'. The reliability index for the total item-set, using Cronbach's α , is 0.73.

Results

The first section describes the differences between profit and public sector employees. Age effects are described in the second section.

Differences between profit and non-profit sector employees regarding the career factors

In Table 3, the group means for employees in the profit and non-profit sector for the linear career factors are given. Table 4 gives the frequency distribution for the nominal scale variable 'average period spent in each job'.

Independent samples T-tests were carried out in order to determine whether or not the profit and public sector employees differ significantly in terms of mean. Levene's test was used to test the hypothesis that the two population variances are equal. If the observed significance level for this test appeared to be smaller than 0.10, the separate-variance T-test for means was used. Where the significance level for the Levene statistic appeared to be larger, the pooled-variance T-test is appropriate and was used (Norusis, 1993).

Table 3: Profile of the perceptions by profit and non-profit sector employees regarding career activities, divided by sector

	Total sample (<i>n</i> = 559)		Profit sector (<i>n</i> = 423)		Non-profit sector (<i>n</i> = 136)	
	Mean	Std. dev.	Mean	Std. dev.	Mean	Std. dev.
Individual factors						
Network participation	3.06	2.58	2.78	2.48	3.94	2.68
Training and development	49.80	57.47	50.22	62.78	48.51	36.99
Career initiatives	6.10	2.71	5.91	2.68	6.69	2.73
Job-related factors						
Total amount of jobs	4.68	2.28	4.54	2.29	5.12	2.20
Learning value of the job	15.14	2.44	15.15	2.47	15.11	2.36
Organizational factors						
Social support from immediate supervisor	14.75	3.41	14.78	3.48	14.64	3.21
Social support from near colleagues	14.87	2.94	15.01	2.88	14.43	3.08
Organizational facilities	9.39	2.14	9.51	2.11	9.01	2.23
Attention from immediate supervisor	2.57	1.66	2.63	1.67	2.39	1.63

Std. dev. = Standard deviation.

Table 4: Frequency distribution for the variable 'average period spent on each job'

Predictor variable	Total sample (<i>n</i> = 559)		Profit sector (<i>n</i> = 423)		Non-profit sector (<i>n</i> = 136)	
	Category	Frequency	Category	Frequency	Category	Frequency
Job-related factor						
Average stay in each job	Less than 3 years	233	Less than 3 years	177	Less than 3 years	56
	3–5 years	186	3–5 years	137	3–5 years	49
	5 years or more	135	5 years or more	106	5 years or more	29

As far as the *individual variables* are concerned, T-tests indicate that non-profit sector employees participate more in social networks compared with the profit sector employees ($t(547) = -4.57, p < 0.001$) and engage more in taking initiatives for further career development ($t(557) = -2.93, p < 0.01$). The amount of training participation does not differ significantly.

Regarding the *job-related factors*, T-tests demonstrate that non-profit sector employees have performed significantly more jobs than profit sector employees ($t(552) = -2.58, p < 0.05$). With regard to the learning value, no significant differences were found.

On the other hand, as far as the *organizational factors* are concerned, T-tests indicate that non-profit sector employees receive less social support from their near colleagues ($t(553) = 1.99, p < 0.05$), and that there are less organizational facilities for their further career development ($t(554) = 2.37, p < 0.05$) compared with profit sector employees. The differences in the amount of social support from their immediate supervisor and the amount of attention from their immediate supervisor for their further career development are not significant at the 0.05 level.

For the variable 'average period spent in each job', a non-parametric variant, Kruskal–Wallis test for two independent samples, was used. The ranks are 280.69 ($n = 423$) for the profit sector employees and 277.58 ($n = 136$) for the non-profit sector employees. Chi-square is 0.036 and non-significant. Profit sector and non-profit sector employees do not differ significantly with regard to the average stay in each job.

Age effects

Table 5 gives the group means for the interval scale career factors. Table 6 gives the frequency distribution for the nominal scale variable 'average period spent in each job'.

For the interval scale variables, one-way analysis of variance (ANOVA) was applied to test whether or not the factor means in the three age groups are equal. This technique examines the variability of the observations within each group as well as the variability between the group means (Norušis, 1993, p. 269). Table 7 gives the analysis of variance pertaining to the career factors.

As can be seen in Table 7, as far as the *profit sector* employees are concerned, for each factor the F-test is significant. Independent samples T-tests were carried out in order to determine whether or not the groups differ significantly regarding their mean. Levene's test was used to test the hypothesis that the two population variances are equal. If the observed significance level for this test appeared to be smaller than 0.10, the separate-variance T-test for means was used. Where the significance level for the Levene statistic appeared to be larger, the pooled-variance T-test is appropriate, and was used.

Post-hoc comparisons indicate that the starters participate less in social networks ($t(300.72) = -2.86, p < 0.01$) and, logically enough, they have performed significantly

Table 5: Means and standard deviations (Std. dev.) for individual, job-related and organizational factors; profit sector versus non-profit sector employees

Age group	Profit sector (n = 423)						Non-profit sector (n = 136)					
	Mean			Std. dev.			Mean			Std. dev.		
	1	2	3	1	2	3	1	2	3	1	2	3
Individual factors												
Network participation	2.31	3.07	2.87	1.99	2.68	2.61	2.76	4.33	3.94	2.30	2.59	2.96
Training and development	60.31	55.17	32.20	84.45	56.11	37.47	52.54	51.57	38.59	46.82	38.65	20.53
Career initiatives	6.46	6.24	4.80	2.57	2.66	2.51	7.12	6.81	6.12	1.96	2.53	3.54
Job-related factors												
Total amount of jobs	2.93	5.07	5.49	1.51	2.08	2.40	3.52	5.35	5.79	1.81	2.17	2.03
Learning value of the job	16.01	15.34	13.92	2.36	2.54	1.96	15.88	15.17	14.41	2.47	2.27	2.34
Organizational factors												
Social support from immediate supervisor	15.59	14.38	14.51	3.10	3.55	3.64	14.72	14.68	14.50	2.72	3.28	3.49
Social support from near colleagues	15.97	14.72	14.38	3.06	2.58	2.87	14.84	14.38	14.24	3.05	2.96	3.42
Organizational facilities	9.72	9.67	9.03	1.95	1.98	2.38	9.08	8.83	9.35	2.55	2.14	2.20
Attention from immediate supervisor	2.98	2.70	2.14	1.61	1.67	1.63	2.96	2.47	1.79	1.70	1.66	1.37

Profit sector employees:
 Age group 1 (the starters): n = 128
 Age group 2 (the middle-aged): n = 179
 Age group 3 (the seniors): n = 116

Non-profit sector employees:
 Age group 1 (the starters): n = 25
 Age group 2 (the middle-aged): n = 77
 Age group 3 (the seniors): n = 34

Table 6: Frequency distribution for the variable 'average period spent in each job'; profit sector versus non-profit sector employees

	Profit sector (n = 423)			Non-profit sector (n = 136)		
	Frequency			Frequency		
Age group	1	2	3	1	2	3
Category						
Less than 3 years	97	66	14	19	36	1
3–5 years	24	70	43	6	28	15
5 years or more	5	43	58	0	11	18
Profit sector employees:	Non-profit sector employees:					
Age group 1 (the starters): n = 128	Age group 1 (the starters): n = 25					
Age group 2 (the middle-aged): n = 179	Age group 2 (the middle-aged): n = 77					
Age group 3 (the seniors): n = 116	Age group 3 (the seniors): n = 34					

Table 7: F-ratio's analysis of variance (ANOVAs) for profit sector employees and for non-profit sector employees separately

	Profit sector employees	Non-profit sector employees
Individual factors		
Network participation	$F(2, 414) = 3.65, p < .05$	$F(2, 129) = 3.35, p < .05$
Training and development	$F(2, 388) = 6.73, p < .01$	Not significant
Career initiatives	$F(2, 420) = 14.91, p < .001$	Not significant
Job-related factors		
Total amount of jobs	$F(2, 417) = 58.52, p < .001$	$F(2, 131) = 9.73, p < .001$
Learning value of the job	$F(2, 417) = 24.94, p < .001$	$F(2, 132) = 2.94, p < .10$
Organizational factors		
Social support from immediate supervisor	$F(2, 417) = 5.07, p < .01$	Not significant
Social support from near colleagues	$F(2, 417) = 11.15, p < .001$	Not significant
Organizational facilities	$F(2, 418) = 4.14, p < .05$	Not significant
Attention from immediate supervisor	$F(2, 420) = 8.38, p < .001$	$F(2, 133) = 4.04, p < .05$

fewer jobs compared with the middle-aged ($t(302.71) = -10.41, p < 0.001$). On the other hand, the learning value of their job is significantly higher ($t(303) = 2.32, p < 0.05$) and they receive both more social support from their near colleagues ($t(304) = 3.10, p < 0.01$) and more social support from their immediate supervisors ($t(242.32) = 3.73, p < 0.001$).

When the group means for the starters and the seniors are compared, all group means differ significantly. T-tests indicate that for both the total amount of social networks ($t(210.40) = -1.86, p < 0.10$) and the total amount of jobs that were performed, the seniors' score is significantly higher ($t(188.64) = -9.80, p < 0.001$). For all other variables, the starters have a significantly higher mean compared with the seniors, i.e. for the total amount of training participation ($t(158.73) = 3.25, p < 0.01$), for the

amount of career initiatives ($t(242) = 5.08, p < 0.001$), for the amount of learning value ($t(238.25) = 7.50, p < 0.001$), for the amount of social support by the immediate supervisors ($t(239) = 2.49, p < 0.05$), for the amount of social support by near colleagues ($t(240) = 4.15, p < 0.001$), for the amount of organizational facilities ($t(222.68) = 2.43, p < 0.05$) and for the amount of attention from their immediate supervisor for further career initiatives ($t(242) = 4.09, p < 0.001$).

As far as the difference between the middle-aged and the seniors is concerned, for all factors for which the group means differ significantly, the situation is less favourable for the seniors compared with the middle-aged. The seniors participate significantly less in training and development programmes ($t(273.98) = 4.08, p < 0.001$), they undertake fewer career initiatives ($t(293) = 4.63, p < 0.001$), their function has a lower learning value ($t(282.01) = 5.38, p < 0.001$), and they have fewer organizational facilities at their disposal ($t(213.26) = 2.38, p < 0.05$). Moreover, their immediate supervisor pays less attention to their further career development ($t(293) = 2.85, p < 0.01$).

For the variable average period spent in each job, a non-parametric variant, Kruskal–Wallis one-way ANOVA technique, was used. The ranks are 134.52 ($n = 128$) for the starters, 217.30 ($n = 179$) for the middle-aged and 289.32 ($n = 116$) for the seniors. Chi-square is 111.92 with a significance of 0.000. The older the employee, the longer his or her average stay in each job.

For the *non-profit sector* employees, T-tests indicate that the starters participate significantly less in social networks compared with the middle-aged ($t(98) = -2.71, p < 0.05$) and, logically enough, they have performed significantly fewer jobs ($t(98) = -3.80, p < 0.001$).

As regards the difference between the starters and the seniors, T-tests indicate that the seniors have performed significantly more different functions ($t(57) = -4.46, p < 0.001$). Yet regarding the amount of learning value ($t(57) = 2.33, p < 0.05$) and the amount of attention from the immediate supervisor for the employee's further career development ($t(57) = 2.92, p < 0.01$), a significant decrease with age was found.

The difference between the middle-aged and the seniors is only significant for the total amount of participation in training and development programmes ($t(98.68) = 2.23, p < 0.05$), and for the total amount of attention from the immediate supervisor for a further career development ($t(76.00) = 2.24, p < 0.05$). In both cases, the situation is less favourable for the seniors.

For the variable average period spent in each job, a non-parametric variant, Kruskal–Wallis one-way ANOVA technique, was used. The ranks are 41.10 ($n = 25$) for the starters, 63.44 ($n = 77$) for the middle-aged and 100.10 ($n = 34$) for the seniors. Chi-square is 40.32 with a significance of 0.000. The older the employee, the longer his or her average stay in each job.

Conclusions and discussion

Some reflections on the outcomes

As far as the participation in social networks and the amount of career initiatives are concerned, non-profit sector employees seem to be in a better position compared with those in the profit sector. They appear to be more active themselves in positively influencing their further career development. Yet, as regards the organizational factors, the outcomes appear to be the other way around. The non-profit sector employees receive less social support in their work from near colleagues, and they are offered fewer organizational facilities for their further career development.

The good news is that for most variables the difference between the two types of employees is not significant. Yet it is hard to understand what the reason is when the career factors do differ significantly. In some cases the situation is more profitable for profit sector employees, whereas in other cases the opposite seems to be the fact. It seems that non-profit sector employees themselves more strongly bear responsibility for their further career development, whereas in profit sector companies the managerial measures to combat obsolescence of individual capacities are more numerous.

One might conceive that profit sector management is more inclined to pay attention to the commitment of employees to their company as an early exit implies a loss of all investments that have been made in the employee's further development. Further research is necessary to determine whether or not this hypothesis can be confirmed as more and more public sector organizations also heavily invest in their staff's development, implying that guiding the return on investment is a main topic for them as well.

Notwithstanding the differences in personnel management in the public sector versus the private sector, the important question remains whether or not these differences really matter. To answer this question more deeply, longitudinal research aimed at determining the relationship between career factors and the development of occupational competence should be carried out.

Public and private organizations are different, but so are large and small, manufacturing and service, or staff and line organizations. As Wallace Sayre noted, 'public and private organizations are fundamentally alike in all unimportant respects', it is the nature of the differences that is significant (Sayre, 1948). The very study of public administration is predicated on the assumption that these differences do indeed matter.

As regards the differences in the occurrence of the career factors in the three age groups, the results indicate that only hypothesis 4 is fully confirmed for both profit and non-profit sector employees. The average stay in one and the same job seems to increase with the age of the employee. For all other variables, the results are not univocal. As far as the amount of learning value is concerned, a significant decrease with age for the profit sector employees (hypothesis 5 is confirmed here) have been found, whereas for the non-profit sector employees the differences are not significant over the whole age range, although the trend is the same.

For the other variables, when the differences are significant, in general, the outcomes are more favourable for the younger employees. That is to say, the relationship between age and career initiatives is negative. The older the employees become, the less time they spend in following training and development programmes and in undertaking initiatives to further develop within their own job field. Furthermore, as employees grow older, they become more and more immobile, meaning that the number of job transitions decreases sharply with age.

Overall, our study indicates that seniors increasingly hold back from actively engaging in career activities, especially the ones working in the profit sector. The explanation that has been sought is that this could be the result of a self-fulfilling prophecy. In a previous study on the over-forties (Boerlijst, 1994; Boerlijst *et al.*, 1993), it was found that most supervisors have a rather negative view of the possibilities for older employees to make any further progression in a professional sense. It is conceivable that these negative evaluations made by supervisors may produce some kind of a negative spin-off.

Our assumptions regarding the doubts held by supervisors concerning the individual pay-off are to a large extent supported by the outcomes from our study concerning the degree of interest on the part of the immediate supervisor in the employee's further professional growth. Active engagement in further career development by immediate supervisors decline as the employee grows older. The extent to which management guides opportunities to enlarge the employee's knowledge and skills base is strongly correlated with the age of the individual employee. In the case of younger employees, more time is spent observing the learning value of their function. That is to say, management is inclined to create more possibilities for further growth by maintaining the function.

In addition, the extent of supervisory support, as assessed by the employee, declines with age. Most elderly employees are of the opinion that supervisors neglect their function and functioning and are not able or willing to provide them with supportive feedback and help. A crucial observation here is that in the data concerning the supervisory activities, there are also direct indications that supervisors give serious thought as to whether or not investments in career activities can be recuperated in view of the age of the individual employee. The degree of attention from the imme-

mediate supervisor to the employee's further career development decreases, but especially when the employee has reached the age of 50. Our data suggest that the assessment made by the supervisor of the 'pay-off period' for investment in further career development is for many career factors still favourable for the middle-aged, that is the ones who still have at least 15 years to go.

Where a central key figure in an employee's immediate work environment sends out signals indicating doubts as to whether or not investments in career activities can be recuperated with a certain profit, given the time remaining up to retirement age, the employee himself or herself may well begin to question the value of investments (see also Becker, 1993; Schultz, 1971). The data from this study indeed suggest that older employees themselves do start to believe in the negative attitude conveyed by their immediate supervisors. Consequently, they are less and less inclined to take initiatives directed at a further career development, let alone a broader development. A welcome exception is the amount of participation in social networks, where the situation appears to be least favourable for the youngsters.

In conclusion, just as the immediate supervisor makes an assessment of the 'pay-off' period for career activities, the employee himself or herself also deliberately takes into account whether or not the investment is worth the effort. A decrease in the extent to which both management and the employees themselves are actively engaged in furtherance of the professional career is noticeable with ageing of the employee.

Limitations of the study

The organizations that have participated in this research project occupy a prominent position in the Netherlands, but they do not, of course, offer a representative picture of the Dutch business community as a whole. The sample consists of a heterogeneous collection of organizations that differ with regard to the kind of work done. Besides, larger organizations do of course differ from medium-sized or smaller ones as far as management activities are concerned (see also Van der Heijden, 2001, 2002b, 2002c).

Another weakness of this study is that as far as the career factors are concerned, only self-report measurements were used. Although individuals strive to achieve consistency in their self-reported response pattern, it could be that the variables pertaining to the number of career activities are somewhat clustered (see also Kasl, 1978). This means that the fact that seniors score mainly negatively on these variables could either be due to their striving to achieve consistency in their response pattern, or could indicate that they genuinely suffer from a lack of attention, as is apparent from a wide range of measurements.

Moreover, like Thijssen (1996), we defend the use of more concrete measurements of participation in career development activities. More detailed information concerning the content, the duration and the subject of career development activities could contribute considerably to our knowledge concerning the value of such programmes in the context of a further professional development. The same is true as regards, for example, the learning value of the function. In order to make a profound assessment of the possibility of gaining greater professional knowledge and skills during the course of everyday activities, more detailed questions should have been asked. An in-depth analysis of the possibilities for 'on-the-job learning' should be made in order to address this need.

In line with this, it would be interesting to compare the employee's assessments with the ones made by supervisors concerning the perception of the occurrence of the career factors. Because this study was primarily interested in how employees experience the possibilities for career activities, the questions on the career factors were submitted to them. However, in order to gain more insight into the communication that takes place between an employee and his or her immediate supervisor, and into the differences in experience, it seems advisable to take the opinion of the supervisor into account.

Another point of discussion is the choice of the three age categories to represent three different stages in the professional career. Although a justification has been given,

it is still dubious whether or not the boundaries have been chosen in such a way that the different career stages people go through are correctly covered. Increasingly, career research and career problems are becoming individualized. This is why real longitudinal research in the area of career psychology is essential and recommended.

Implications of the study

This study leads to the conclusion that it is highly important to carefully select both profit sector and public sector management based on their specific competencies (see Bhatta, 2001 and Virtanen, 2000 for examples in the public services of major jurisdictions). Only when one is prepared to and is able to combat age-related stereotyping might the situation change. Next, working organizations, both in the private and in the public sectors, should systematically gather information regarding various facets of training and career development. In most cases, a systematic database on training and other career development activities across different organizational departments does not seem to be available at all (Boerlijst *et al.*, 1993; Van der Heijden, 1998).

First, different actors have different ways of describing their expenditure and activities related to training and career development. Second, they vary considerably as regards the classification of training and career development activities. In one organization, some developmental programmes are standard for all staff members whereas in other organizations, only a select group of employees is given opportunities for a broader career development, for example management development programmes. Besides, there appears to be no formal system whereby competencies are systematically registered so that decisions can be made about who should be given opportunities to develop particular competencies. The latter should obviously be matched with the career aspirations of the staff members themselves.

Generally, human resource information systems have not emphasized the development function in their databases (Cereillo, 1985). Among employment, compensation, benefits, employee relations, payroll and training, only employee relations ranked lower than training in terms of whose data elements could be useful to functional areas of responsibility (payroll came out on top) (p. 21).

In order to enable the personnel function to really stimulate individual career development, two components should be added to conventional personnel data fields: that of competencies and that of career aspirations (Bhatta, 2002). Organizations and employees need to help each other with the process of matching competencies required by the nature of the work and competency capabilities of individuals within the organization. The aim here is to optimally target the right development interventions to the right individuals.

Nowadays, both in the private and in the public sectors, lifelong learning and employability requirements have replaced the earlier phenomenon of lifetime employment (see also Gaspersz & Ott, 1996; Thijssen & Van der Heijden, 2003). We can observe an important trend in the domain of training and development (Kirkpatrick & Mann, 1999; Saner *et al.*, 1997), i.e. training now is slowly being more demand-oriented. It also means that increasingly there is a specification of individual development needs and an increasing involvement of learners in the customization and design of training programmes, including learning objectives emanating from the employees rather than from the suppliers of training programmes.

Across both the private and the public sector there is a need for more insight in the amount of return on investment in training and development. Also, in public sector organizations there is an increasing need to foster excellence through development opportunities. They have to become learning organizations, fostering lifelong learning for their employees to the betterment of citizen services and employee self-realization. However, public sector organizations are characterized by downsizing, budgetary pressures and frequent changes in expectations implying a lack of training and development, often because of the crush of immediate needs, which mean that current development needs go unmet (Berman *et al.*, 2001).

Concluding, both private and public sector managers at the beginning of the twenty-first century need to be mindful of several broad trends in the labour market. These trends are important because they provide the context in which human resource decisions are made. Some significant developments in the foreseeable future can be summarized as follows: changing workforce, i.e. older and composed of more women and minorities than in previous years, a declining citizen confidence in government, declining budgets, high demands for productivity, the emerging virtual workplace/virtual government and decentralization of human resource activities (see also Berman *et al.*, 2001).

References

- Allen, T. J. (1977), *Managing the Flow of Technology* (Cambridge, MA: MIT Press).
- Argyris, C. and Schön, D. A. (1978), *Organizational Learning. A Theory of Action Perspective* (Reading, MA: Addison-Wesley).
- Arvey, R. D., Fossum, J. A., Robbins, N. and Paradise, C. (1984), *Skills Obsolescence: Psychological and Economic Perspectives*, Report prepared for control data corporation. Unpublished.
- Becker, G. (1993), *Human Capital: A theoretical and empirical analysis, with special reference to education* (3rd edn) (Chicago: University of Chicago Press).
- Becker, H. S. and Strauss, A. (1956), 'Careers, personality and adult socialization', *American Journal of Sociology*, **62**, 253–263.
- Beer, M., Spector, B., Lawrence, P. R., Mills, D. Q. and Walton, R. E. (1984), *Managing Human Assets: The Groundbreaking Harvard Business School Program* (Macmillan, NY: The Free Press).
- Berman, E. M., Bowman, J. S., West, J. P. and Van Wart, M. (2001), *Human Resource Management in Public Sector. Paradoxes, Processes, and Problems* (London: Sage Publications, Inc.).
- Bhatta, G. (2001), 'Enabling the cream to rise to the top; a cross-jurisdictional comparison of competencies for senior managers in the public service', *Public Performance & Management Review*, **25**, 2, 194–207.
- Bhatta, G. (2002), '“It's the identification, stupid”': profiling senior public service managers for training and development', *International Journal of Training and Development*, **6**, 2, 98–111.
- Blancero, D., Boroski, J. and Dyer, L. (1996), 'Key competencies for a transformed human resource organization: results of a field study', *Human Resource Management*, **35**, 3, 383–403.
- Boerlijst, J. G. (1994), 'The Neglect of Growth and Development of Employees Over 40 in Organizations: A Managerial and Training Problem', in J. Snel and R. Cremer (eds), *Work and Aging* (London: Taylor & Francis Ltd.), pp. 251–71.
- Boerlijst, J. G., and Van der Heijden, B. I. J. M. (1996), 'Human Resources Management in Distress: Pitfalls for Gifted Workers in Organizations', in U. Munandar and C. Semiawan (eds), *Proceedings of the Fourth Asia Pacific Conference on Giftedness* (Jakarta: University of Indonesia Press), pp. 473–80.
- Boerlijst, J. G., Van der Heijden, B. I. J. M. and Van Assen, A. (1993), *Veertig-plussers in de onderneming* [Over-forties in the Organization] (Assen, the Netherlands: Van Gorcum/Stichting Management Studies).
- Bratton, J. and Gold, J. (1994), *Human Resource Management: Theory and Practice* (Basingstoke, England: Macmillan).
- Bray, D. W. and Howard, A. (1980), 'Career Success and Life Satisfaction of Middle-Aged Managers', in L. A. Bond and J. C. Rosen (eds), *Coping and Competence During Adulthood* (Hanover, NH: University Press of New England), pp. 258–87.
- Bray, D. W. and Howard, A. (1983), 'The AT&T Longitudinal Studies of Managers', in K. W. Schaie (ed.), *Longitudinal Studies of Adult Psychological Development* (New York: Guilford Press), 266–312.
- Carnevale, A. P., Gainer, L. J. and Villet, J. (1990), *Training in America. The Organization and Strategic Role of Training* (San Francisco/Oxford: Jossey-Bass Publishers).
- Cereillo, V. (1985), 'A Guide for Building a Human Resource Resource Data System', in R. Beatty, R. Montagnano and D. Montgomery (eds), *Human Resource Information Systems Sourcebook* (Amherst, MA: Human Resource Development Press).
- Daley, D. M. (2002), *Strategic Human Resource Management. People and Performance Management in the Public Sector* (Upper Saddle River, NJ: Prentice Hall).
- Dewhirst, H. D. (1991), 'Career Patterns: Mobility, Specialization, and Related Career Issues', in R. F. Morrison and J. Adams (eds), *Contemporary Career Development Issues* (Hillsdale, NJ: Lawrence Erlbaum Associates), pp. 73–107.

- Ericsson, K. A. and Smith, J. (1991), 'Prospects and Limits of the Empirical Study of Expertise: An Introduction', in K. A. Ericsson and J. Smith (eds), *Toward a General Theory of Expertise. Prospects and Limits* (Cambridge: Cambridge University Press), pp. 1–38.
- Faerman, S. and Ban, C. (1993), 'Trainee satisfaction and training impact: issues in training evaluation', *Public Productivity and Management Review*, **16**, 3, 299–314.
- Gaines, B. R. (1988), 'Positive feedback processes underlying the formation of expertise', *IEEE Transactions on Systems, Man, and Cybernetics*, **18**, 6, 1016–20.
- Gaspersz, J. and Ott, M. (1996), *Management van employability. Nieuwe kansen in arbeidsrelaties* [Management of Employability. New Opportunities in Labour Relations] (Assen, the Netherlands: Van Gorcum/Stichting Management Studies).
- Hagström, A. (1995), 'Chapter 6, Strand F report: Lifelong Learning for Continuing Professional Development', in N. Longworth and L. de Geest (eds), *CALL (Community Action for Lifelong Learning) for Developing Human Potential*. Part two of the report from the first global conference on lifelong learning. Rome, Italy, 30 November–2 December (Brussels: World Initiative on Lifelong Learning), pp. 57–66.
- Howard, A. and Bray, D. (1988), *Managerial Lives in Transition: Advancing Age and Changing Time* (New York: Guilford Press).
- Hughes, O. (1998), *Public Management and Administration: An Introduction* (London: Macmillan).
- Hunt, J. and Collins, R. R. (1983), *Managers in Mid Career Crisis* (Sydney: Wellington Lane Press).
- Janssen, P. (1992), *Relatieve deprivatie in de middenloopbaanfase bij hoger opgeleide mannen. Een vergelijking tussen drie leeftijdsgroepen* [Relative deprivation in the mid-career phase in more highly educated males. A comparison of three age groups], Ph.d. Thesis, Catholic University Nijmegen (Maastricht: Datawyse).
- Kasl, S. V. (1978), 'Epidemiological contributions to the study of work stress', in C. L. Cooper and R. Payne (eds), *Stress at Work* (Chichester: John Wiley & Sons), pp. 3–48.
- Kaufman, H. G. (1974), *Obsolescence and Professional Career Development* (New York: AMACOM).
- Kaufman, H. G. (1983), 'Factors related to use of technical information in engineering problem solving'. Report to National Science Foundation.
- Kee, J. and Black, R. (1985), 'Is excellence in the public sector possible?' *Public Productivity Review*, **9**, 1, 25–34.
- Kerr, A. and McDougall, M. (1999), 'The small business of developing people', *International Small Business Journal*, **17**, 2.
- Kirkpatrick, C. and Mann, P. (1999), 'Knowledge, training and development: an overview', *Public Administration and Development*, **19**, 1–3.
- Lynch, L. M. and Black, S. E. (1995), *Beyond the incidence of training: evidence from a national employers survey*. Working paper No. 5231, National Bureau of Economic Research, Inc, Massachusetts.
- Munnichs, J. M. A. (1989), 'Loopbaan, levensloop en de midleven-ervaring' [Career, Life Course and the Mid-Life Experience], in J. Munnichs and G. Uildriks (eds), *Psychogerontologie. Een inleidend leerboek over ouder worden, persoonlijkheid, zingeving, levensloop en tijd, sociale context, gezondheid en interventie* (Deventer, the Netherlands: Van Loghum Slaterus), pp. 223–8.
- Norušis, M. J. (1993), *SPSS for Windows. Base System User's Guide. Release 6.0* (Chicago, IL: SPSS Inc).
- OECD (1997), *Manual for Better Training Statistics: Conceptual, Measurement and Survey Issues* (Paris: OECD).
- Onstenk, J. H. A. M. (1993), 'Het opleiden van laaggeschoolde oudere werknemers' [Training semi-skilled and unskilled older workers], in J. J. Peters et al. (eds), *Gids voor de opleidingspraktijk. Visies, modellen en technieken* (Houten, the Netherlands: Bohn Stafleu Van Loghum), pp. 1–21.
- Pedler, M., Burgoyne, J. and Boydell, T. (1991), *The Learning Company: A Strategy for Sustainable Development* (London: McGraw-Hill).
- Plett, P. C., Lester, B. T. and Yocum, K. L. (1991), *Training for Older People* (Geneva: International Labour Office).
- Rainey, H. G. (1989), 'Public management: recent research on the political context and managerial roles, structures, and behaviors', *Journal of Management*, **15**, 229–50.
- Rainey, H. G. (1991), *Understanding and Managing Public Organizations* (San Francisco: Jossey-Bass).
- Rainey, H. G., Backoff, R. W. and Levine, C. H. (1976), 'Comparing public and private organizations', *Public Administration Review*, **36**, 233–46.
- Saner, R., Strehl, F. and Yiu, L. (1997), 'General Summary of Research Results', in R. Saner, F. Strehl and L. Yiu (eds), *In-Service Training as an Instrument for Organizational Change in Public Administration* (Brussels: IIAS).

- Sarason, B. R., Shearin, E. N., Pearce, G. R. and Sarason, I. G. (1987), 'Interrelations of social support measures: theoretical and practical implications', *Journal of Personality & Social Psychology*, **52**, 813–32.
- Sayre, W. (1948), 'The triumph of techniques over purpose', *Public Administration Review*, **8**, (Spring), 134–37.
- Schein, E. H. (1978), *Career Dynamics: Matching Individual and Organizational Needs* (Reading, MA: Addison-Wesley).
- Schoemaker, M. J. R. and Geerdink, Th. D. (1991), *Human Talent Management: Een visie op besturen, faciliteren en ontwikkelen van personeel* [Human Talent Management: A Perception of Managing, Facilitating and Development of Personnel]. Monografieën personeel en organisatie (Deventer, the Netherlands: Kluwer Bedrijfswetenschappen/NVP).
- Schultz, T. W. (1971), *Investment in Human Capital: The Role of Education and Research* (New York: Free Press).
- Senge, P. (1990), *The Fifth Discipline: The Art and Practice of the Learning Organization* (London: Century Business).
- Sloboda, J. A. (1991), 'Musical Expertise', in K. A. Ericsson and J. Smith (eds), *Toward a General Theory of Expertise. Prospects and Limits* (Cambridge: Cambridge University Press), pp. 153–71.
- Spencer, L. M. and Spencer, S. M. (1993), *Competence at Work: Models for Superior Performance* (New York: Wiley & Sons).
- Stickland, R. (1996), 'Career self-management – can we live without it?' *European Journal of Work and Organizational Psychology*, **5**, 4, 583–96.
- Thijssen, J. G. L. (1996), *Leren, leeftijd en loopbaanperspectief. Opleidingsdeelname door oudere personeelsleden als component van Human Resource Development* [Learning, Aging and Career prospect]. Tilburg; Ph.d. Thesis, Catholic University Brabant.
- Thijssen, J. G. L. and Van der Heijden, B. I. J. M. (2003), 'Employability in the focus of attention. Onset to enlightening a confuse phenomenon'. Paper presented at the 7th Conference on International Human Resource Management, June 2003.
- Van der Heijden, B. I. J. M. (1998), *The measurement and development of professional expertise throughout the career. A retrospective study among higher level Dutch professionals*. Ph.D. Thesis. University of Twente, Enschede, the Netherlands (Enschede, the Netherlands: PrintPartners Ipskamp).
- Van der Heijden, B. I. J. M. (2001), 'Encouraging professional development in small and medium-sized firms. The influence of career history and job content', *Career Development International*, **6**, (2 & 3), 156–68.
- Van der Heijden, B. I. J. M. (2002a), 'Individual career initiatives and their influence upon professional expertise development throughout the career', *International Journal of Training and Development*, **6**, 2, 54–79.
- Van der Heijden, B. I. J. M. (2002b), 'The relationship between employee initiatives and professional expertise throughout the career in small and medium-sized enterprises', *Career Development International*, **7**, (6 & 7), 322–38.
- Van der Heijden, B. I. J. M. (2002c), 'Organizational influences upon the development of professional expertise in SMEs', *Journal of Enterprising Culture*, **9**, 4, 367–406.
- Van der Heijden, B. I. J. M. (2003a), 'Organisational influences upon the development of occupational expertise throughout the career', *International Journal of Training and Development*, **7**, 3, 142–65.
- Van der Heijden, B. I. J. M. (2003b), 'The relationship between career mobility and occupational expertise. A retrospective study among higher-level Dutch professionals in three age groups', *Employee Relations*, **25**, 1, 81–109.
- Van Velsor, E. and Musselwhite, W. C. (1986), 'The timing of training, learning and transfer', *Training and Development Journal*, **40**, 58–9.
- Virtanen, T. (2000), 'Changing competences of public managers: tensions in commitment', *The International Journal of Public Sector Management*, **13**, 4, 333–41.
- Zelikoff, S. B. (1969), 'On the obsolescence and retraining of engineering personnel', *Training and Development Journal*, **23**, 3–14.