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New Knowledge Workers Perspective in Participating in Mentoring Programme in South African Construction Industry

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ABSTRACT

Purpose:
This study examined the gender composition of the mentoring relationship, important characteristics of mentors, importance of mentoring functions and effective achievement of the mentoring functions by the mentor as reported by the new knowledge workers.

Methodology:
A descriptive survey was used to conduct this research, using a structured questionnaire. The data was analyzed using the Statistical Package for the Social Sciences (SPSS), and the Number Cruncher Statistical System version 6.0. The reliability for internal consistency of mentors characteristics and functions to be undertaken by the mentors in the mentoring programme were determined using Cronbach's alpha test.

Results:
The results show that male mentors still dominate in the South African construction industry. Thus there is a need to integrate more female professionals and mentors. The important characteristics that mentors should possess and functions that mentors undertake to achieve the success in the mentoring program have also been ranked by the mean values. Where the mentor has achieved adequacy in these functions, these have also been ranked.

Value:
This study contributes to the body of knowledge on mentoring. Mentoring relationship from new knowledge workers' perspective has not been thoroughly researched in the construction industry in South Africa. The need for future research is also discussed.

Keywords: construction industry; mentoring program; new knowledge workers

1. INTRODUCTION

Aron (2001) and Chand, (2006) suggest that organisations compete, build and maintain viable businesses in a rapidly changing global, marketplace and business environment to a large degree through "high quality human capital". Aron (2001) further states that organisations with high quality human capital perform better in the marketplace, and deliver higher and more consistent returns to shareholders, than organisations with mediocre workers. Competitive organizations worldwide in the information age rely on their employees to provide, innovative, advantageous and original solutions to problems the organisations may have. Aron (2001) however points out that the shift to the new economy has brought with it free agent market for skilled people.

Implementing the right technology is critical to a company's success, sustaining a skilled, highly educated and motivated new knowledge workforce however is an equally valuable asset. Drucker, (1994) indicates that knowledge workers are high level employees who apply theoretical and analytical knowledge, acquired through formal education, to develop new products or services [new knowledge worker can therefore be defined as a person who is being mentored and developed to be a knowledge worker][1].

Mentoring is receiving much attention from contemporary business, organizational, behavioural and psychological researchers. Mentoring has been linked to better career development opportunities, higher levels of career maturity and greater overall job satisfaction by protégés (Peluchette & Jeanquart 2000; Flouri & Buchanan 2002; Genser 1998; Parnell 1998). Mentoring refers to an interactive and dyadic relationship (Paice *et al.* 2002).

Obtaining a mentor is an important career development experience for individuals. Research undertaken by (Chao, 1997; Scandura, 1992; Whitely *et al.* 1992; Dreher & Ash, 1990 and Fagenson, 1989) suggests that mentored individuals perform better on the job, advance more rapidly within

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the organization i.e. get promoted more quickly and earn higher salaries, report more job and career satisfaction, and express lower turnover than their non-mentored counterparts.

Klauss (1981) argues that a mentor may be viewed as a senior, experienced employee, who serves as a role model, provides support, direction, and feedback to the younger employee regarding career plans and interpersonal development, and increases the visibility of the protégé to decision-makers in the organization who may influence career opportunities.

A number of testimonials, case studies, and descriptive research studies suggest that mentors can facilitate personal development and advancement of their protégés in the organization by providing challenging assignments, guidance and counselling and increased exposure and visibility to top management and by serving as role model (Burke, 1984; Phillips-Jones, 1983).

1.1 A Review of South Africa transformation

Due to socio-political changes in 1991, South Africa moved from paternalistic to democratic society, which had an impact on employee-manager relations in organizations. South African organizations are in an era of rapid and spasmodic transformation as the current ambiguities result in the disillusionment of the workforce (Visser, 2003). The construction industry delivers its products in a uniquely project-specific environment that continuously involves different combinations of:

- Investors, clients, contractual arrangements and consulting professions;
- Site conditions, design, materials and technologies; and
- Contractors, specialist subcontractors, skills and the workforce assembled for each project (Construction Industry Development Board (CIDB) 2004).

The construction industry is affected by the ongoing and necessary overhaul of the public service. The South African Government's 10-year review process has recognized that this process has been uneven, resulting in unintended dislocation and delivery constraints that have affected a wide range of services. It has been cited that public sector capacity is a key constraint to delivery and sustainable industry growth. Lack of capacity is attributed to the following factors:

- Loss of knowledgeable personnel during the transition has led to a reduction in management and technical skills;
- The mobility of personnel has interrupted the knowledge transfer and mentoring process;
- Appointment of non-built environment professionals to key project managerial positions;
- Lack of staff with appropriate training and experience and

- Shortage of resources (CIDB, 2004).

The rise of a highly competitive, technologically based information society has caused a great need for skilled workers. The CIDB report (2004) indicates that many of the professional consultancy sectors are rapidly losing capacity to international markets and to other economic sectors, including finance and information technology. This is particularly acute with engineers, who are in great demand. Engineering Council of South Africa (ECSA) records indicate that approximately 1400 registered professional engineers have formally emigrated since 1996. These trends may result in a shortfall of professional skills in the next decade and a discontinuity in the mentoring and knowledge transfer process.

Although South Africa shows great potential in some areas, the country is plagued by major deficiencies in other areas. For example, in the people area South Africa is placed 46th on the list and 40th for management out of a total of 46 countries. This clearly indicates that South Africa's attempts to create the human capital needed for growth require serious attention (Hinzelman & Smallwood, 2004). Thus the following questions were posed.

- What are the important characteristics of mentors in the South African construction industry?
- What are the important functions of a mentoring program? and
- How adequately were the functions achieved by the mentors?

2. PROBLEM STATEMENT

The overriding research problem is to investigate the perspective of new knowledge workers in participating in mentoring relationship in respect to their mentors in the South African construction industry. The study focused more on the new knowledge workers and not the mentor.

2.1 Objectives of the research

The objectives of the study are defined as follows:

1. To determine the gender composition of mentors in South African construction organizations;
2. To determine the important characteristics of mentors as viewed by the new knowledge workers in the South African construction industry;
3. To determine the important functions / factors of mentoring programs and
4. To determine the degree to which mentors achieved these functions in the South African construction industry.

3. RESEARCH METHODOLOGY

A review of the literature led to the identification of the available mentoring programs, identification of thirteen antecedent variables relative to the characteristics of mentors and nine mentoring functions that a should be fulfilled in a mentoring program. A descriptive survey method was adopted, which involved the use of structured questionnaire in an in-depth exploration of the constructs underlying the subject matter of the research. Creswell (1994) describes a survey as a quantitative or numeric description of some fraction of the population – the sample, which enables researchers to generalize their findings from a sample of respondents to a population within the limitations of the sampling method.

A purposive sampling was used where the researchers selected sample members to conform to some or other criterion in this case new knowledge workers. As no sampling frame exists and no parameters are known, probability sampling could not be used. The respondents were attending either bachelor of technology civil engineering, construction management or quantity surveying programs for (one year full time or two years part-time, twice a week for part-time and four times a week for full time students). 80 (eighty) usable completed questionnaires were gathered of which 30 (thirty) were for civil engineering and 50 (fifty) construction management and quantity surveying students at the University of Johannesburg. This sample size was sufficient to meet the statistical test requirements for group statistical testing. As part of the delimitation process (Creswell, 1994) of this research, new diplomats who had completed their National Diplomas in either, Civil Engineering or Building and were currently employed and employed by an employer organization had a mentoring program, completed the entire questionnaire. This limits the generalization of the sample as it excludes new knowledge workers who are not working or employed in organizations who do not have mentoring programs. The geographical aspect of the sampling further limits the generalization of the sample.

Purposive sampling is a non-probability method of sampling it is impossible to evaluate the extent to which such samples are representative of the relevant population (Welman & Kruger, 2001). In some respects purposive sampling gives the research qualities of a case study (Creswell, 1994). These problems with generalizing from the sample to the whole population of new knowledge workers are limitations of the research design and fully acknowledged in this research.

The structured questions were analyzed using the Statistical Package for the Social Sciences (SPSS) and the Number Cruncher Statistical System version 6.0. This resulted in the computation of frequencies, a mean value was determined and the standard deviation to determine the dispersion of the responses.

The questionnaire surveys were administered under controlled lecture room conditions to ensure the standardization of data gathering, to

decrease non-response errors and to increase response rates (Cooper & Schindler, 1998). The data was gathered by the intercept method (Cooper & Schindler, 1998) using self-administered questionnaires (Leedy, 1997).

The need for content validity was not established as no, pilot study and pre-testing was done on the questionnaire. The reliability for internal consistency of the factors was determined using Cronbach's alpha test (Cooper & Schindler, 1998), Nkado & Mbachu, (2002), validated a scale on client satisfaction and job satisfaction, and achieved a coefficient of between 0.73 and 0.78, this is a well accepted measure for the purpose of the present study.

As the questionnaires were completed anonymously, the collection of the data and the presentation of this report cannot harm the respondents or their employing organizations in any way.

4. RESULTS AND DISCUSSIONS

4.1 To determine the gender composition of mentors in the South African construction organizations

Table 1: Gender of mentors

Gender	Valid percentage
Male	91.2
Female	8.8

An overwhelming majority, 91.2% of mentors in the various construction organizations in which the new knowledge workers were working are male as indicated in Table 1. These organizations included: local authorities, consultants, national government and contractors. This was anticipated since the construction industry is male dominated. Table 2 indicates that 60.6% of the new knowledge workers were involved in a formal mentoring programme. This is a good indication as the Government of South Africa through the Department of Public Works is striving for the implementation of mentoring programmes in the work place. Of all the mentors involved in formal mentoring programmes 44.1% were Black as compared to 41.2% White. The rest 14.7% were either Coloured or Indian. As per the data 82.2% of the mentors are in possession of a qualification either a Certificate, Diploma, Bachelors' degree or Post-graduate degree. This suggests that the majority of the new knowledge workers are trained in the job by mentors in possession of a formal qualification.

Table 2: Type of mentoring programme, race and qualification of mentors

Type of mentoring programme	Valid percentage
Formal	60.6
Informal	39.4
Race of mentors	Valid percentage
Blacks	44.1
Coloured	8.8

Continued **Table 2:** Type of mentoring programme, race and qualification of mentors

Race of mentors	Valid percentage
Indians	5.9
Whites	41.2
Qualification of mentors	Valid percentage
Certificate	2.9
Diploma	17.6
Bachelor's degree	38.2
Post-graduate degree or diploma	23.5
Don't know	5.9
Other	11.8

4.2 To determine the important characteristics of mentors as viewed by the new knowledge workers in the South African construction industry;

Table 3: Important characteristics of mentors

Characteristics	**Mean**	**Std. Dev**	**Rank**
Approachable	4.82	0.393	1
Self-confidence	4.65	0.493	2
Shows a desire to be a mentor	4.59	0.712	3
Provides honest feedback	4.59	0.795	3
Self-knowledge	4.53	0.717	5
Dedicated	4.53	0.717	5
Visionary i.e. exposing the protégé to future opportunities	4.47	0.874	7
Understanding	4.47	0.943	7
Respectable	4.35	0.931	9
Patient	4.29	0.849	10
Is a good role model	4.24	0.831	11
Compassionate	4.24	1.091	11
Shows integrity	4.06	1.029	13

The result in Table 3 indicates that all mentors characteristics were important as they were all above the mid-point of 3. A reliability statistic analysis was undertaken of the mentors' characteristics, using Cronbach's

Alpha test which was obtained to be 0.90, hence acceptable, as it was above 0.73. The variables were weighed in a 5-point likert scale of 1=totally unimportant; 2=not important; 3=neutral; 4=important; and 5=extremely important. A listwise deletion analysis based on all the characteristics was undertaken. This was done in order to verify the valid cases of respondents. A total of seventeen of the thirty five cases were found to be valid for processing which was 48.6% of the total. The new knowledge workers
indicated that mentors being approachable, self confident, show desire to be a mentor, providing honest feedback, self-knowledgeable and being dedicated to mentoring were extremely important as they fell in the mean band of 4.5 and 5.0. The other characteristics i.e., being a visionary, exposing the protégé to future opportunities, understanding, respectable, patient, being a good role model, compassionate and showing integrity were important, hence also vital for the mentor to posses.

4.3 To determine the important functions / factors of mentoring program; and

Table 4: Important functions of mentoring program

Functions	Mean	Std. Dev	Rank
Exposure to career advancement	4.67	0.547	1
Challenging assignments	4.53	0.571	2
Confirmation and acceptance	4.40	0.563	3
Role modelling	4.30	0.915	4
Coaching	4.23	0.774	5
Counselling	4.13	0.681	6
Sponsorship	4.00	1.017	7
Friendship	3.90	0.845	8
Protection	3.63	1.189	9

Table 4 indicates that all the functions of the mentoring program are viewed to be important as they are above the mid-point of 3.00. A reliability statistic analysis was undertaken of the functions of the mentoring program using Cronbach's Alpha test which was obtained to be 0.81, hence acceptable as it was above 0.73. The variables were weighed in a 5-point likert scale of 1=totally unimportant; 2=not important; 3=neutral; 4=important; and 5=extremely important. A listwise deletion analysis based on all the mentoring functions was analyzed to achieve the valid cases of respondents in order to be processed, a total of thirty of the thirty five cases were valid for processing which was 85.7% of the total accepted cases.

Two of the functions were highly ranked and viewed to be extremely important. These were exposing new knowledge workers to career advancement and giving challenging assignments. These two functions were in the mean band of 4.5 to 5.0, whereas the other seven mentoring functions were between the bands 3.5 to 4.5, thus indicating the importance of the functions. These were confirmation and acceptance, role modelling, coaching, counselling, offering sponsorship, being friendly and protective. Protection as a function was lowly ranked indicating probable maturity of that the new knowledge workers to look after themselves.

4.4 To determine the achievement of the mentoring functions by mentors in the South African construction industry

Table 5: Adequately achieved mentoring functions

Functions	Mean	Std. Dev	Rank
Role modelling	3.93	1.193	1
Exposure to career advancement	3.86	1.026	2
Friendship	3.86	1.026	2
Confirmation and acceptance	3.83	1.002	4
Coaching	3.76	0.912	5
Challenging assignments	3.76	0.988	5
Sponsorship	3.66	0.814	7
Protection	3.62	0.862	8
Counselling	3.34	1.078	9

In achieving the mentoring functions, Table 5 indicates that eight of the functions were adequately achieved by the mentors. A reliability statistic analysis was used to analyze the achievement of the mentoring functions in the mentoring program, using Cronbach's Alpha test which was obtained to be 0.92, hence acceptable, as it was above 0.73. The variables were weighed in a 5-point likert scale of 1=extremely inadequate; 2=inadequate; 3=neither adequate or inadequate; 4=adequate; and 5=extremely adequate. A listwise deletion analysis based on all the mentoring functions was analyzed to achieve the valid cases of respondents in order to proceed with the analysis, a total of thirty of the thirty five cases were indicated to be valid for processing which was 82.9% of the total respondents. Mentors were seen to have adequately achieved the responsibility of being role models in the work place, exposing new knowledge workers in career advancements, being friendly, confirming and accepting new knowledge workers, coaching, giving challenging assignments, sponsoring new knowledge workers to attend events and in career advancements and not to be exposed to difficult situations which is protection, these functions fell in the mean bands of 3.5 and 4.5. Counselling was neither adequately

achieved nor inadequately achieved probably indicating no sharing of personal life situation by new knowledge workers. The mean score for this function was 3.34.

5. CONCLUSIONS

The perspective of new knowledge workers participation in a formal mentoring program indicates that male mentors are still dominant in the construction industry. This is an indication for the government to continue promoting gender equality in the industry. The extremely important characteristics of mentors as indicated are that they should be approachable, self confident, show desire to be a mentor, provide honest feedback, self-knowledgeable and be dedicated in mentoring. The extremely important mentoring functions were, exposing new knowledge workers to career advancement and giving challenging assignments. New knowledge workers also indicated that counselling was neither adequately nor inadequately achieved as a mentoring function, this indicates that sharing of personal life problems might not in place between the mentor and new knowledge worker.

Further research needs to be conducted in order to generalize findings, which at this point is not possible. This can be achieved by expanding the sample to cover all the institutions offering built environment courses.

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