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Influences on the performance effectiveness of non-executive directors in South Africa

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In light of the rising interest in corporate governance, this paper examines an array of factors influencing the performance of non-executive directors. In a questionnaire-aided survey of 60 current non-executive directors of Johannesburg Securities Exchange (JSE)-listed companies representing the major sectors of the South African economy, it is concluded from frequency counts that the most important influences are: procedural factors – the distribution of discussion materials prior to board meetings (86%), agenda setting (76%) and orientation programmes (59%); corporate governance factors – separation of the roles of the chair and the CEO (73%), the hiring process (65%); personal attributes – situational experience (62%), length of service (45%); and independence factors – executive sessions with and without the CEO (55%), compensation in the form of equity (52%). Thus, procedural and corporate governance factors rather than personal attributes or independence factors have the greatest impact. This empirical finding attests to and provides justification for the recent review of the JSE listing requirements in accordance with the recommendations of the King Code of Corporate Governance.

Introduction

> The 19th century saw the foundations being laid for modern corporations; this was the century of the entrepreneur. The 20th century became the century of management: the phenomenal growth of management theories, management consultants, and management teaching all reflected this preoccupation. As the focus swings to the legitimacy and effectiveness of wielding power over corporate entities worldwide, the 21st century promises to be a century of governance. (King II 2002: 15)

Corporate governance refers to the fundamental processes whereby ultimate corporate authority and responsibility are shared and exercised by shareholders, directors and management. It is about profits and investor confidence and the need to create value for shareholders. At the centre of the governance process is the board of directors. In accepting appointment to the board, the member automatically assumes duties, responsibilities and personal liabilities, the primary goal being to chart the direction of the company, look after the interest of the business, and take a long-term and strategic view (Chanduru 2000).

The business world has witnessed a number of corporate failures resulting from fraud, corruption and mismanagement. Consequently, boards are increasingly being scrutinised and criticised, and in light of heightened recognition of the significance of corporate governance, companies need to be directed by a board that can both lead and control them.

Since 1994, the standard of corporate governance in South Africa has been benchmarked on the King Code of Corporate Governance (King I), the product of a committee convened by the Institute of Directors and chaired by Judge Mervin King. The Code was reviewed, reshaped and expanded, culminating in a new Code, King II, released in March 2002.

The research problem

The King II proposals added considerable substance to the role of non-executive directors, by recommending, among other things, that they should preferably constitute the majority of a board. Furthermore, King II placed greater emphasis on their independence, entrusting them with the authority to seek information from management, and obliging the board to disclose its processes and decisions (King II 2002). Given this new emphasis

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on the role of non-executive directors, the research problem was to determine: the generic factors influencing their effectiveness; the factors particularly specific to present-day South Africa; and whether these factors are similar across economic sectors.

Importance and limitations

At the heart of the checks and balances required for good corporate governance are non-executive directors who add value to the organisation in various ways: "[They] bring an independent perspective in decision-making, and bring the shareholders' perspective to the decision-making process. ... [They] can conduct candid evaluation of the Chief Executive Officer (CEO) [and] participate in succession planning. [They] monitor financial performance, share relevant experience, participate in the work of various board committees and can provide diversity" (Jack 2001: 14). In this regard, the finding of this study is useful not only to non-executive directors themselves but also to parties that interact with them, including chairpersons, CEOs, executive directors, human resources practitioners and corporate governance experts.

There is no universally appropriate model for corporate governance. Consequently, countries have their own distinctive brands reflecting their legal, regulatory and tax regimes. As such, the findings of this research may relate not only to the South African situation, its model of corporate governance, and its legal and cultural environment, but also to the stage of evolution of the companies concerned. Additionally, the findings may only be interpreted in the context of board performance without regard for any other interests.

Review of the literature

Role of non-executive directors

The terms 'non-executive director' or 'outside director' refer to a director serving on the board of a company that is not part of the company's management team, that is, not involved in the day-to-day running of the company. According to King, non-executive directors:

> have four important functions. They need to bring their special expertise and knowledge to bear on the strategy, enterprise, innovative ideas and the business planning of the company. They should be driven by entrepreneurship and enterprise. Secondly, they can monitor and review the performance of the executive management more objectively than the Executive Director. Thirdly, they can play a role in resolving conflict of interest situations, for example, the remuneration of executives, succession and hostile takeovers. Fourthly, they can act as a check and balance against the Executive Directors. (King I 1994: 11)

Thus, non-executive directors are expected to acquire a working knowledge of the company as much as executive directors do — reading board minutes, participating in board committee meetings, and examining company policies and procedures. Above all, they must ensure that there is no conflict of duties and interest and that they act in the best interest of the company. Indeed, the ideal non-executive director should provide the bridge between management and shareholders by representing shareholder interests within the company. This requires that he or she command the respect and confidence of both sides. He or she should work with the management team not only to develop a clear strategy for the company, but also to ensure that the strategy is implemented, and that the company takes a strong ethical position in the market and in the way it conducts business. Finally, the non-executive chairman should have the authority to fire the chief executive (Truell 2002: 10). In other words, the non-executive director should exhibit exemplary management skills and knowledge to break the traditional mould of non-executives. However, this role is likely to be fraught with problems and is particularly vulnerable to the structure of the board (James 1998; Bruce 1998).

Key functions of the board

Chanduru (2000: 2) suggests the following seven key functions of a board of directors: (1) formulating short-term and long-term strategic direction of the company; (2) making policies for the company to follow; (3) taking responsibility for appointing the CEO and providing guidance on the appointment of other senior executives; (4) monitoring and supervising the performance of executive management to ensure adherence to policy and strategy and high standards of ethical discipline; (5) ensuring that the company has adequate operational and financial systems of internal controls, that planning and budgeting processes are in place with performance measured against such plans and budgets, and that procedures are put in place as checks on information flows between the company and the board; (6) providing accountability by prompt and sufficiently detailed reporting to shareholders and other stakeholders; and (7) ensuring that the company adheres to relevant statutes and complies with other reporting requirements.

Thus, the functions of the board are wide and diverse. Board members have to ensure that the business thrives with enterprise and innovation, and non-executive directors have the particular responsibility of ensuring good corporate governance within the organisation (King I 1994; King II 2002).

Future demands on the board of directors

In view of currently well-publicised failures of corporate governance, boards face increasing demands on their effectiveness – they should be working harder, becoming more diverse and bringing specific strategic value to the company in order to be effective (Ward 1996). A non-executive directorship has now become "a real job ... and the days when it was a niche for super animated politicians or a friend of the chairman should be confined to the history books" (Truell 2002: 10). In South Africa, in particular, there is no distinction in the country's Companies Amendment Act (Act No. 20 of 2004) between executive and non-executive directors with regard to fiduciary duties. This point is sharply stressed by Ash (2002: 16) in the following argument: "The prospective liability for non-executive directors lies under the well known Section 424 of the Companies Act. But, the picture has become more sombre. Last month [March 2002] a judgement was handed down in the Witwatersrand High Court in the so-called 'Cellular Calls' case (Kalinko v Nisbet and Others), where among other things, the traditional Foss v Harbottle rule was dealt a hammer blow, and a shareholder was given leave to sue directors for damages allegedly suffered by the destruction of shareholder wealth flowing from the directors' alleged wrongful conduct. This opens the possibility of non-executive directors being pursued by aggrieved shareholders for a liability that was previously not thought to exist."

Such a pronouncement from the Bench, as well as recommendations from King II, suggest that accepting board papers at face value may no longer be considered diligent. Sufficient diligence may now entail proper analysis of the information before the director. Ash argues further that "the onus lies on the non-executive director to familiarise himself with the business and finances of the company, and to ask the right questions" (Ash 2002: 16). By implication, non-executive directors will have to become increasingly interested in corporate governance in general and in their own effectiveness in particular.

Performance determinants

The literature identifies four groups of factors that impact on the effective performance of non-executive directors, namely: personal attributes, corporate governance factors, independence-related factors and procedural factors.

Personal attributes

Personal attributes refer to special qualities an individual brings to the board by virtue of age as well as situational and sectoral experience.

The Report of the National Association of Corporate Directors Blue Ribbon Commission on Board Evaluation (2001: 9) suggests: "Age remains a point of controversy ... Although advanced age brings health problems to some individuals, this is by no means a universal rule. Indeed, thanks to advances in medical science, the 70s and even 80s can often be decades of great productivity and contribution. At the other end of the spectrum, boards should discount the value of qualified persons in say, their 30s or 40s. Therefore, decisions relating to a director's continuing effectiveness should be addressed on a case by case basis and not on the basis of an arbitrary age limit."

Regarding situational and sectoral experience, Jebb (1998) suggests that it is a better strategy to hire non-executive directors who have experience in similar as well as other sectors and situations that the company is likely to face than search for a particular expertise in a director. According to Pincombe (2000), this enables the utilisation of specialist skills in different fields and the broadening of experience. Therefore, searching for the right set of directors must be informed by an analysis of the particular company's requirements, objectives and expected functions of the board (Feldman 1992).

Corporate governance factors

Four factors relating to corporate governance are considered relevant, namely, tenure of service, size of the board, nature of the hiring process and separation of the roles of the chairperson and the CEO.

Tenure of service

Feldman (1992) is of the view that a board that services a business well today may not be qualified to lead it five years from now as markets and products evolve. Therefore, members should be brought on for limited terms to enable the company to keep adding new members as they are needed. This means that tenure conditions should be predetermined. One suggestion is that by serving for more than ten years, the board member tends to become too close to senior management to provide objective oversight. However, this could provide the in-depth knowledge and institutional memory that a new board member has to work hard to acquire (Fleming 1998).

Fonteyn (2002) suggests, however, that contract terms should not exceed three years, but Lester (2000) argues that if board members stay on the board longer than three to six years, they will find it difficult to blow the whistle. There is thus general agreement that serving ‘too long’ may render a board member ineffective. The question is, ‘How long is too long?’

Another point of contention is the effectiveness of a board member in the first year of tenure. Reflecting on his own experience, Goldhar (1996) argues that directors have very little influence in their first year. Contrarily, Lester (2000) thinks that directors are more effective when they are new in the company. Kings II ties up these viewpoints in suggesting that board continuity, subject to performance and eligibility for re-election, is “imperative” (King II 2002: 24).

Size of the board

The composition and size of the board are crucial determinants of a company’s success, the size being particularly important (Dean & Kenny 1999). The evidence from Fleming’s (1998) work is that if a board is too large, meaningful discussion and decision-making become limited. Dalton, Daily, Johnson & Ellstand (1999) examined the relationship between board size and company performance using market and accounting-based performance indicators, and found it to be strong and positive in smaller firms. King’s (2002: 6) concern was that while there should be a majority of non-executive directors with sufficient independence, care must be taken against creating an “asymmetric knowledge” situation where these directors rely solely on information-based knowledge fed to them by the chief executive and other managers.

The hiring process

“Good boards do not just ‘happen’; they are carefully constructed working teams” (Vennat 1995: 21). In other words, it is by selecting and developing appropriate individuals to serve as non-executive directors that effective boards are created to achieve high-level performance.

In a survey of boards of directors of US companies, Ettore (1993) observes that recommendations by the chairperson and other board members used to be the most common means of locating new board members. However, few reported relying on these recommendations as they did in the past. Similarly, Jebb (1998) suggests that the practice of retaining a retiring executive director as a non-executive director is improper. This practice is as bad as appointing non-executive directors without following a formal selection process, because it introduces a new kind of risk (Hogg 2002b). This risk is common in South Africa where non-executive directors still tend to see appointments as ‘honorific’ rather than ‘contributory’ (Shevel 2001).

Separation of the role of chairperson and chief executive officer

King II contends that there should be a clearly defined division of responsibilities at the head of the company to ensure a balance of power and authority, such that no single individual has unfettered powers of decision-making. The committee goes as far as expressing that “given the strategic operational role of the CEO, the function should be separate from that of the chairperson” (King II 2002: 24). This view is strongly supported by Fonteyn (2002) in suggesting that it is the chairperson’s duty to enforce honesty and integrity and to demonstrate intellectual independence. His or her function is to run the board while the CEO runs the company. The same author takes the matter further in recommending that if the positions are combined, there should be an annual justification and an independent deputy chairperson or a senior lead director.

Independence-related factors

The ability and willingness of a non-executive director to take an independent viewpoint are primarily influenced by two factors: compensation in the form of equity and the regularity of executive sessions with and without the CEO.

Compensation in the form of equity

There is considerable appeal for compensating board members in the form of stock (Fleming 1998). Indeed, shareholders have long urged boards to align directors’ compensation with company performance through equity-based pay schemes, although cash retainers are still common. Byrne, Grover & Melcher (1997) suggest that by holding stock, non-executive directors tend to align their interests with those of shareholders. Hence, these directors are inclined to be more proactive in spotting problems in advance and swiftly heading them off than are management loyalists.

King II concurs that shares rather than share options may be granted to non-executive directors, but must be subject to the approval of shareholders. The main reason for recommending shares is to pre-empt the dilution of director independence (King II 2002). Fonteyn (2002) emphasises that while this form of remuneration should fall in line with company performance, the shares must be purchased with the directors' own fees.

In a study by Hambrick & Jackson of Columbia Business School in New York, which examined the performance of companies whose directors buy substantial amounts of shares with their own money, they found that these companies performed better than those whose non-executive directors either owned a few shares or were given their shares. They concluded that it is vital that directors buy their shares rather than be given them by the company (Skapinker 2000).

Executive sessions

One way of achieving greater independence among non-executive directors is by holding regular executive sessions with and without the CEO present. Martin (1993: 10) suggests that non-executive directors should regularly meet alone and without the CEO, saying, "this would give directors a needed forum in which to explore concerns they are reluctant to discuss in front of the Chief Executive Officer". The author continues that executive sessions should be held at least twice a year both with the CEO to evaluate senior management, and without the CEO to discuss issues relating to the top executive.

Vennat (1995) suggests that regular informal discussions among board members alone, without the CEO and management present, influence the effectiveness of the board as a whole. Ward (2000) concurs, explaining that the old-line view that director discussion outside the boardroom is conspiratorial and treasonable is no longer tenable as boards become more proactive, fast moving and increasingly demanding of vital technical skills.

Procedural factors

Procedural factors that influence the effectiveness of a board include orientation processes, distribution of discussion material prior to a board meeting, evaluation systems and the agenda.

Orientation programmes

Vogl (1993: 29) observes that "rarely are new board members given an orientation where they can really understand the company, ... since they lack the business literacy to evaluate it themselves ... They have their own business literacy, but they are being asked to understand another business entirely ... That's why new board members need a thorough grounding in the business." Therefore, where a non-executive director is exposed to a thorough orientation, possibly along the lines of a working conference, one could suggest that the board member will have a sound understanding of the company and markets.

King II (2002: 26) reiterates that "the board should establish a formal orientation programme to familiarise incoming directors with the company's operations, senior management and its business environment, and to induct them in their fiduciary duties and responsibilities". Fonteyn (2002) adds that statutory and regulatory aspects of orientation should include making previous minutes and board papers available. Corporate history, current performance and forecasts, as well as key performance indicators and risks, should be identified. Business operations and industry issues, major strategic interests and relationships, as well as suppliers' markets and contracts, should be disclosed when directors are appointed.

Distribution of discussion material

Quite often, non-executive directors are uninformed about the challenges they face, thereby gravely undermining their effectiveness. Hurley (2000) suggests that making the following list of information available to non-executive directors can contribute to their focus and productivity: board policies, committee guidelines, board minutes, authority annotations, contract summaries, organisational charts, member surveys and analyses, and programme or project analyses.

The evaluation process

Evaluating a board should not be difficult if, in the first place, members are carefully chosen and are subsequently given clear goals (Vennat 1995). "The selection and assessment of non-executive directors is arguably the most pressing next step in the evaluation of the board. Whereas in most organisations every member of staff is assessed continuously, non-executive directors remain protected and unassessed" (Hunt 2000: 17). Therefore, "it is imperative to have standards of performance measurements for the board; without such standards, a board cannot assess its own successes and failures People should be held accountable for delivering value based on the responsibilities they are paid to discharge and their awareness of this accountability increases when they are measured according to it'' (National Association of Corporate Directors Blue Ribbon Commission 2001: vii).

As boards are increasingly obligated to perform regular evaluations of their processes, procedures, information flow and general effectiveness, many are performing some sort of self-evaluation, whether of the board as a whole or of individual members. These help diminish the 'asleep-at-the-switch' scenario where boards are blamed for various corporate disasters. They also serve to strengthen and upgrade overall board performance and contribution. Such regular evaluations are recommended by King II as a means of improving relations between the board and management.

The agenda

It is, no doubt, important for boards to allocate time to deliberate on broad strategic issues and to review operating results. Thus, boards have to strike a balance between concern about tomorrow and focus on today. However, many boards fall into the trap of micro-management and become overly involved in operational issues.

A board's agenda reflects the extent of its debate around strategic and operational issues. ''There is little in the way of legal prescription or common practice on the board's proper role (regarding strategy). This is probably due to the fact that the appropriate role can vary with a large number of factors: the company's age and size; the tenure and capabilities of the CEO and senior management; the speed of industry sector change; technology; the size of the board and its competencies; the presence or absence of strategic planning professionals and staff; and the company's strategic planning processes and traditions'' (Oliver 2000: 8).

Vennat (1995) suggests that the discussions (at board meetings) should include issues facing the company in the next three to five years, particularly major strategic issues in which the board will be involved.

Conclusion

Important trends in corporate governance during the 1990s, running into the third millennium, suggest that directors should recognise that they have a rapidly changing duty to examine the long-term strategies and management processes of their company. In the past, directors could feel comfortable knowing that their only responsibility was to act in the best interest of the company and its shareholders. Now, board members are considered to have responsibilities not just to shareholders, but to employees, suppliers, customers and the communities in which they do business (Brown 1994: 39). The increased importance of corporate governance means that at a time of crisis, a vigorous board that has performed well can help minimise the damage to its company. Quite expectedly, therefore, institutional investors are flocking to stocks of companies perceived to be well governed and punishing those seen as having lax oversight (Lavelle 2002).

In tune with the central issues reviewed in this section, Jebb (1998: 81) lists a number of guidelines for creating an ideal non-executive director:

- ''Ensure that he or she receives a letter of appointment spelling out the duties required
- Do not treat him or her as a policeman even if your non-executive director has been recommended by your venture capitalist
- Insist that board meetings focus on board matters, not the immediate problems facing the executive directors
- Ensure that non-executive directors are given time to read through the papers to be discussed at the next board meeting
- Hold board meetings at appropriate intervals
- Do not forget your non-executive directors when appraisal time comes round
- Think about paying your non-executives at least partially in shares.''

In addition, Lavelle (2002) suggests that boards are now being forced to grapple with a variety of tough questions, such as: ''how much is enough when it comes to paying the chief executive?; what is the best way to account for option grants?; how many boards can directors serve on without being stretched out thin? And, how should the audit committee be staffed and run?'' All this makes the job of the non-executive director extremely difficult, requiring time and technical know-how. In South Africa today, shifting stakeholder groups and the increasing importance of black economic empowerment (BEE) are additional factors that may influence the effectiveness of non-executive directors.

Research propositions and methodology

Research propositions

The literature review suggests the following propositions for the study:

- Personal attributes such as age, situational and sectoral experience influence the effectiveness of non-executive directors.
- Corporate governance factors that influence the effectiveness of non-executive directors include length of service, size of the board, nature of the hiring process and separation of the roles of the chair and the CEO.
- Independence-related factors such as compensation in the form of equity and the holding of executive sessions with and without the CEO influence the effectiveness of non-executive directors.
- Procedural factors influence the effectiveness of non-executive directors. These include orientation programmes, distribution of material before meetings, performance evaluation systems, and agenda setting that provides enough time for debate around operational and strategic issues.

In addition, it is proposed that:

- Country (South Africa)-specific factors influence the effectiveness of non-executive directors.
- The factors influencing the effectiveness of non-executive directors will be similar in all companies irrespective of the specific nature of their business.

Methodological procedures

This study adopts a qualitative approach in assessing the influencing factors. Thus, it is not a quantitative research project used to answer questions about relationships among measured variables with the purpose of explaining, predicting and controlling phenomena. Such an approach would imply not only identifying causal relationships but also explaining why one or more factors would be more influential than others (Leedy & Ormrod 2001).

Accordingly, the research employs the survey procedure to collect data by means of in-depth questionnaire-based interviews conducted within a judgemental sample. The in-depth interviews gave respondents ample opportunity to share as much information as possible in an unconstrained environment. A judgemental sample was considered suitable as respondents needed to conform to a criterion – the non-executive role.

The respondents represented companies from the major sectors of the Johannesburg Securities Exchange (JSE). For the sake of convenience, they were all located in Gauteng province.

Data analysis was restricted to frequency counts and the identification of recurring themes by content analysis in order to achieve the aim of producing descriptive information. The researchers transcribed conversations verbatim so that anecdotes and quotes could be used for the interpretation of results.

The information-gathering process provided two sets of data – responses to open-ended questions, and rating of factors listed on a scale of the degree of influence as ‘not influential’, ‘reasonably influential’, or ‘highly influential’. Additional factors not originally listed emerged from the interviews. These were analysed to complement the listed factors.

A total of 60 non-executive directors out of an initial target of 90 participated in the study, either directly or through their company secretaries, giving a response rate of 66%. Two questionnaire responses were considered incomplete, giving a final sample of 58.

Analysis and interpretation of data

This section presents the descriptive statistics of the respondents and analyses of their responses to the questionnaire schedule. The discussions are based on the propositions formulated in the previous section.

Description of participants

The gender and racial composition of the sample is tabulated in Table 1. It shows white males in the majority, reflecting their dominance in the boardrooms of Johannesburg. In addition, most were retired executives and were therefore more easily available for interviews than any other group. The sample reflects a scarcity of white women, largely outnumbered by black women in board representation. Most of the respondents served on a number of boards of companies in mining, banking, information technology, manufacturing, the chemical industry, services, consumer retail and insurance – all of which are major sectors of the JSE.

Table 1: Gender and racial breakdown of respondents

	Black	White	Indian	Coloured	Total
Male	8	36	2	2	48
Female	8	4	0	0	12
Total	16	40	2	2	60

Table 2: Responses to factors influencing the effectiveness of non-executive directors (propositions 1–4)

Degree of influence Factor	Not influential	Reasonably influential	Highly influential	Total
1. Personal attributes • Age	10 (17%)	32 **(55%)**	16 (28%)	58 (100%)
• Situational experience	6 (10%)	16 (28%)	36 **(62%)**	58 (100%)
• Sectoral experience	10 (17%)	34 **(59%)**	14 (24%)	58 (100%)
2. Corporate governance factors • Length of service	8 (14%)	24 **(41%)**	26 **(45%)**	58 (100%)
• Size of the board	12 (21%)	26 **(45%)**	20 (34%)	58 (100%)
• The hiring process	4 (7%)	16 (28%)	38 **(65%)**	58 (100%)
• Separation of the roles of the chair and CEO	10 (17%)	6 (10%)	42 **(73%)**	58 (100%)
3. Independence factors • Compensation in the form of equity	30 **(52%)**	20 (34%)	8 (14%)	58 (100%)
• Executive sessions	12 (21%)	14 (24%)	32 **(55%)**	58 (100%)
4. Procedural factors • Orientation programmes	2 (3%)	22 (38%)	34 **(59%)**	58 (100%)
• Distribution of discussion materials	0 (0%)	8 (14%)	50 **(86%)**	58 (100%)
• Performance evaluation systems	10 (17%)	28 **(48%)**	20 (35%)	58 (100%)
• Agenda setting	2 (3%)	12 (21%)	44 **(76%)**	58 (100%)

Personal attributes

Table 2 shows that situational experience was regarded by 62% of respondents as highly influential, sectoral experience by 59% as reasonably influential and age by 55% also as reasonably influential. Respondents suggested the relevance of other personal attributes such as courage (36%), maturity (23%), integrity (16%), interest in the company (26%) and interpersonal skills (20%).

With regard to the influence of situational experience, one respondent put it thus, ''One does not necessarily need an intimate understanding of the business, but good general business knowledge and an understanding of accounting principles contribute to effective non-executive director performance.'' This view is consistent with Jebb's (1998) suggestion that it is helpful to have someone on the board that has gone through what the company is about to experience. Similarly, the reasonably influential role of sectoral experience is in line with Jebbs' (1998) idea that knowledge of more than one sector is more desirable than technical knowledge of a particular sector. In essence, as another respondent put it, ''there is no substitute for experience and learning from past mistakes''. Furthermore, the rather weak influence of age is in line with the view of the National Association of Corporate Directors Blue Ribbon Commission (2001) that there is no universal rule regarding age.

Respondents also reiterated other personal attributes suggested in the literature. For example, Lester (2000: 19) asserts that "all the evidence is that when the going gets tough, non-executive directors are expected to get tough indeed". Similarly, Hall (1995: 54) supports the importance of integrity, saying that "successful candidates for our board should possess a proven record of leadership, an unblemished reputation for honesty and integrity and a keen understanding of corporate governance. In short, we look for good judgement."

One can then suggest that these personality-related factors and other personal qualities influencing non-executive directors' performance are less mechanistic and structural than many of the factors reported in this study.

Corporate governance factors

Table 2 shows further that 86% of respondents regarded the length of service to be either a reasonably or highly influential factor; that 79% considered the size of the board to be either reasonably or highly influential; and that 65% were of the view that the hiring process was a highly influential factor. In addition, 73% considered the separation of the roles of chairperson and CEO to be highly influential.

One respondent had this to say about the length of service: "The first year of appointment is usually taken up getting to know the organisation, and the second year sees the non-executive director begin to make a really valuable contribution." This view reflects those of Feldman (1992), Fleming (1998) and Goldhar (1996) that non-executive directors, while having little influence in their first year, obviously grow into their role.

Most respondents suggested an optimal size of the board to be between eight and ten, with one respondent saying that "it is not about voting on an issue that makes the size of the board and the number of non-executive directors a concern; in my experience issues are discussed until consensus is reached. ... Good debate is the cornerstone of good decisions from a board, and it should be large enough to accommodate a variety of experience, skills and knowledge." This reflects observations by Fleming (1998) and Dean & Kenny (1999) regarding the reasonably influential role of the size of the board on non-executive director effectiveness.

The finding that 65% of respondents considered the hiring process to be highly influential implies, indeed, that the days of the 'chum of the chairman' appointment are over, and that non-executive directors are now required to provide rational, non-biased and experienced opinions (Jebb 1998). This also mirrors opinions expressed by Ettore (1992). Considering that only current non-executive directors participated in this study, it was not surprising that they were reluctant to comment on their hiring process in detail. Consequently, the views of Fonteyn (2002) and Hogg (2002a) were not tested. One respondent, however, commented as follows: "Hiring has been informal in the past and needs to be formalised and discussed in a structured fashion ... There is a major impact on the performance of non-executive directors if one 'lame duck' non-executive director is appointed. The appointment can detract from the effectiveness of others." Another respondent had this to say: "A proper analysis of what skills the board requires should precede any appointment and, if correctly applied, friendship need not necessarily compromise the hire."

Respondents overwhelmingly (73%) considered the separation of the role of the chair from that of the CEO to be highly influential, which reflects the topical nature of this issue in South Africa and confirms the views of Fleming (1998), Fonteyn (2002) and King II (2002). As one respondent suggested, "a non-executive director is better placed to manage a board meeting than an executive chair, as the latter is perceived to have an interest from a management point of view". Another commented that "a collusion between an executive chair and executive directors can allow for bad news to be 'shut out'. A balanced board can allow for non-executive directors to function effectively." Yet, another respondent on the board of a highly entrepreneurial company, said frankly that in reality it is very difficult to be an effective non-executive director when the roles of the chair and the CEO are not separated. He gave a real example and asked: "How do you challenge the chair on a particular issue before the board when he made R1 billion profit in 2001 [as the CEO]?"

A non-ranked factor that emerged from the study was the composition of the board between executive and non-executive directors. A sizeable number of respondents (56%) agreed that the board should comprise mostly non-executive directors. A respondent captured this view in the following statement: "There has to be a majority of non-executive directors, as the executive directors always back the boss." This is synchronous with King II (2002), which expresses a preference for a non-executive director majority to ensure that no single person or group of persons excises control. It is, however, contrary to Byrd's (1994) view that having a majority of non-executives is 'unwise', because they may not be as knowledgeable as executive directors on company operations and industry trends.

While the presence of non-executive directors is helpful in improving corporate governance, they are only effective when they work alongside executive directors in monitoring management on behalf of shareholders. This view is expounded by another respondent, who felt that if executive directors are determined to subvert any particular process, they will probably get away with it, no matter how alert the non-executive directors are, whether or not they are in the majority.

Independence issues

Some 52% of respondents believed that compensation in the form of equity was not influential, but 55% believed that holding sessions with or without the CEO present was highly influential.

The most common reason given for rejecting the proposition linking performance with equity share compensation was that placing non-executive directors at risk in this way would not significantly encourage them to think long term in the interest of maximising shareholder value, because equity participation compromises their objectivity and neutrality. Others, at the extreme, felt that non-executive directors should not be allowed any material benefit in a company. Thus, this study dismisses the views of Fleming (1998) and Byrne et al. (1997) and disagrees with King II (2002).

With regard to the majority view that executive sessions are a highly influential factor, no distinction was made between formal and informal sessions. Respondents explained that formal sessions would usually be held immediately after a board meeting and would often consider the performance of the executive directors and the CEO as well as issues of remuneration. Informal discussions would centre on specific issues. This study, therefore, upholds the views of Martin (1993), Brown (1994) and Ward (2000).

Procedural issues

Of the four procedural items indicated in Table 2, only the performance evaluation system was regarded by 48% of respondents as reasonably influential. The other three factors were considered highly influential: orientation programmes by 59%, distribution of discussion material by 86%, and agenda setting by 76% of respondents.

One reason for the low rating of performance evaluation is that it requires placing value on behaviour, thereby prescribing conformity rather than diversity. Consequently, the director may be inhibited or silenced by the evaluation criteria. This finding contradicts the view of King II (2002) and the National Association of Corporate Directors Blue Ribbon Commission (2001) that board evaluation is absolutely necessary in promoting awareness of the paramount importance of accountability.

The finding regarding orientation programmes is in line with the views of King II (2002) and Button (1993). Respondents identified two types of orientation – one that ensures that inexperienced non-executive directors have a good understanding of the statutory requirement of their role, and another providing a comprehensive introduction to the activities of the organisation and its key executive staff. As one respondent put it: ''One needs to make sure that personal value addition has been clearly defined and that the role fits in with personal aspirations.''

The overwhelming (86%) rating of the distribution of discussion material as a high influential factor reflects the widespread concern in South Africa about two related issues – the timing and content of board packs. A number of respondents were of the view that board packs should be received at least five days before the board meeting and that they are often too detailed and too operationally focused. This finding validates the position held by Hurley (2000).

The rationale for 76% of respondents rating agenda setting as highly influential is that a well-designed agenda should allow time for the discussion of both operational and strategic issues, with the latter given sufficient time to involve the full participation of all non-executive directors, since it is in this area that their value addition is most desired. This position accords with the views of Brown (1994), Vennat (1995) and Judge & Dobbins (1995).

Two non-listed factors were mentioned during the interviews – participation in committees (33%) and the role of the chair (53%). It was agreed that participation in such committees as audit, compensation (remuneration) and nomination gives non-executive directors access to the true workings of the organisation. Thus, committees rather than the whole board can make more effective contributions to factors driving change. This view is supported by

Jadick (1994), who contends that progressive boards are defining specific committee roles as part of a director's responsibilities.

The suggestion by respondents that the role of the chair impacts on director effectiveness is underpinned for several reasons. Firstly, the chair sets the mood of the board; therefore, directors can be ineffective if the chair is overbearing and dominating. Secondly, the chair needs to encourage debate and so should know the strengths of all the board members. In other words, the chair has the role of drawing non-executive directors into making contributions in their areas of expertise. These views are in keeping with those of Maitland (2000), who regards the CEO's decision style as a critical aspect of the strategic management of the company.

South Africa-specific influences

Respondents listed the following as South Africa-specific factors influencing the effectiveness of non-executive directors: diversity of non-executive directors; work overload of non-executive directors; the need to transform; 'token' appointment of black non-executive directors; and matching expectations of the company and the non-executive director. Table 3 shows that these responses are rather weak, declining from the first factor (diversity of non-executive directors – 43%) to the last (matching company and director expectations – 16%).

Diversity brings a variety of attributes to the board – technical expertise particularly from retired executives and a wide range of other perspectives from blacks, women, labour representatives, environmental and social scientists. As the Report of the National Association of Corporate Directors Blue Ribbon Commission (2001: 9) argues, ''an effective board will strive to be diverse''.

With regard to non-executive directors being overburdened, respondents cited this as particularly relevant to South Africa, as the pool of non-white individuals holding such positions is relatively small. It is expected, however, that as the transformation agenda gains momentum, so will the pool of adequately experienced and available talents for the role increase and the overload factor weaken. Given the onerous nature of the non-executive director's role in a post-King II environment and the well-publicised corporate failures arising largely from a lack of adherence to corporate governance policies, the overload factor could be controlled by non-executive directors themselves not accepting too many invitations to join boards. This suggestion compares with Craig's (2002) view that the number of non-executive directorships an individual may undertake should be limited.

Remodelling of South African boardrooms is only part of the broader transformation taking place in every facet of life in the country. As one respondent put it, ''a company cannot transform on its own; it needs the contribution of a broad range of non-executive directors if it is serious about its business''.

Gumede (2001) comments that the limited ability of some non-executive directors to add value arises from their appointment as 'tokens', or persons preferred for their political affiliation rather than their technical competence. The low frequency of mention of this factor (16%) may, however, be interpreted to mean that the issue of tokenism has been so widely debated in South African society in the past ten years that it has lately ceased to be of concern.

A plausible interpretation of the low response to the factor on 'matching expectations of the company and the non-executive director' is that the skills levels of most token appointees must have converged with company expectations over time.

Table 3: Responses to South Africa-specific factors influencing the effectiveness of non-executive directors

Factor	Frequency of mention %
Diversity of non-executive directors	43
Work overload of non-executive directors	33
The need to transform	26
Token appointment of black non-executive directors	16
Matching expectations of the company and the non-executive director	16

Influencing factor variations across sectors

In contrast to the general proposition that factors influencing the effectiveness of non-executive directors would apply to all sectors, respondents identified the banking and mining sectors as exceptions, with 40% frequency of mention for banking and only 10% for mining (Table 4).

Table 4: Sectors with influencing factors

Sector	Frequency of mention %
Banking	40
Mining	10

Banking board directorship roles are so onerous and demanding that they require additional vigilance. ''If one is ill prepared'', said one respondent, ''or does not understand the workings of a bank, it is not easy to get a foothold to make a valid contribution.'' Modern banks have become more diverse, highly regulated and subjected to mergers, acquisitions and consolidations. All this adds to their complexity, the need for greater surveillance, greater attention from board members and their thorough knowledge of the sector. This is why Kingson-Bloom (1999) contends that banking board members have been forced to become quasi bank professionals.

The uniqueness of mining is that it carries considerable physical and commercial risks as well as environmental hazards. For these reasons, it requires detailed technical knowledge of the enterprise for effective decision-making. Besides, mining is such a politically sensitive sector in South Africa that those invited to its company boards must be alive to the national welfare implications of their decisions.

Conclusions, implications and recommendations

The King reports (I and II) provide corporate South Africa with a world-class code of conduct. The extent to which business conducts itself in accordance with this code will be crucial to establishing a healthy and vibrant business climate. The increased attention to corporate governance challenges non-executive directors to muster a fuller understanding of their performance obligation. This paper has established that four clusters of factors relating to personal attributes, corporate governance, director independence and board procedures collectively influence performance effectiveness, together with a number of South Africa-specific and sector-specific considerations. Of all these, procedural and corporate governance factors have the greatest impact.

Among the personal factors, the majority of respondents found their situational experience to be highly influential and both age and sectoral experience reasonably influential. Courage, the level of interest in a company, maturity, interpersonal skills and integrity were mentioned in a decreasing order of frequency as additional desirable personal characteristics. Corporate governance factors such as the hiring process and the separation of the roles of the chair and the CEO were viewed as highly influential, but the size of the board and length of service of board members were regarded as only reasonably influential. As regards independence factors, compensation in the form of equity was found not to be influential whatsoever, while executive sessions were considered highly influential by a majority of respondents. Finally, with respect to procedural issues, three factors (orientation programmes, distribution of discussion material and agenda setting) were considered highly influential. Most respondents found the fourth factor (performance evaluation system) either reasonably influential or not influential. Other procedural factors frequently raised were the role of the chair and, to a lesser extent, participation in committees.

The following factors specific to South Africa were mentioned in decreasing order of frequency: diversity of non-executive directors; impact of work overload; boardroom transformation; token appointment of blacks; and matching companies' expectations with those of the non-executive director. Aside from these general factors, banking and, to a lesser extent, mining required other sector-specific attributes.

Implications

This study has thus suggested a mix of general, South Africa-specific and sector-specific factors that impact on the effectiveness of non-executive directors in the country. The relevance of some of the general factors has been questioned in the literature (Wallis 2000). Nevertheless, in so far as the respondents in this study were non-executive directors themselves, there is no reason to doubt the relevance of their conclusions. In fact, many of the factors considered highly influential are progressively being implemented through board performance reviews. According to Kemp (2002), the JSE has already reviewed its listing requirements and has made changes that will impact on company activities, and consequently on the roles, expectations and performance effectiveness of non-executive directorship.

Recommendations for future research

It would be desirable to replicate this study on a larger scale using the random sampling technique so that the results may apply more generally to non-executive directors in South Africa with a greater degree of confidence. A further step would be to identify the combination of factors that might optimise the enhancement of director effectiveness. Furthermore, a study to discover whatever systematic relationship exists between the 'influential' factors and company performance must provide useful guidelines for directors.

There is also a need to investigate the role and effectiveness of non-executive directors at the various stages of corporate evolution, because the literature suggests that they have critical roles to play in start-ups where their experience, reputation, specialist expertise and guidance are crucial.

One of the highlights of King II is the role of the company secretary in facilitating board procedures. Since this study has found procedural factors highly influential with respect to the effectiveness of non-executive directors, it would be relevant to investigate the changing role of company secretaries in improving director effectiveness. Similarly, there is a need to examine the changing role of internal auditors and their impact on corporate governance practices. Above all, it would be particularly relevant to compare the results of this study with one that targets non-executive directors of parastatals. Indeed, ''the need for corporate governance at state-owned enterprises is, perhaps, even greater than at a privately owned company since parastatals are owned by governments which represent, and are accountable to, the people of a country'' (Chalmers 2001: 21).

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Tracking study on skills development and employment generation of small retail establishments in Mamelodi, Tshwane

J.W. Strydom

Skills development and employment creation are essential for the development and survival of small retail establishments. Lack of business and management skills, or a lack of training initiatives to improve these skills, are often cited as inhibiting factors for future business growth. This, together with the inability of small retailers to generate sustainable jobs for the unemployed, poses serious questions in terms of the small retail sector's ability to contribute to sustainable economic growth and/or to be reflective of a sector practising the basics of entrepreneurship.

To measure the impact of the small retail industry on skills development and employment, the research used a control group of small retail establishments, which was surveyed in 2003 in the Mamelodi area of the Tshwane Metropolitan Municipality. The skills development and employment profile of the control group was then compared with the skills development programmes of a group of small retail establishments that had had the opportunity to undergo skills development over a period of 18 months. Contrast hypotheses are used to measure any statistically significant changes in the skills development and employment profiles of small retail establishments in Mamelodi.

Introduction

Peter Drucker stated in 1993 that in the knowledge society, knowledge was eclipsing the traditional factors of production such as land and capital. To thrive and grow in this changing business environment implies that the small business must be able to leverage the skills and intellect of its employee base (Fernald, Solomon & Bradley 1999: 311; Robertson 2003). It has furthermore been stated that small businesses are seen as one of the most important factors in generating growth and employment in South Africa (*Sake-Rapport* 2003; *Beeld* 2003; Ndebele 2003: 42; Pretorius & Van Vuuren 2003: 514).

What is of concern is that up to 80% of all South African small businesses fail in the first five years of existence (Moodie 2003; Van Eeden, Viviers & Venter 2003: 13). It is estimated that the South African economy lost more than R68 million over the period 1997 to 2000 as a result of the failure of 117 246 small businesses (Van Eeden et al. 2003: 13). A study in Canada indicates that 68% of small and medium enterprises (SMEs), with fewer than five employees, failed within the first five years (Monk 2000: 12). Reasons for this occurrence include:

- Lack of adequate working capital
- Rapidly changing business environment
- Poor market selection
- Lack of essential business and management skills.

Skills shortages: an international phenomenon

A skills shortage is defined as a situation where there is a definite scarcity in the accessible labour market of the type of skill being sought (Skinner, Saunders & Beresford 2004: 183). The lack of business and management skills is a worldwide malaise of small businesses in developed as well as developing countries. Robertson (2003) reports that SMEs in developing countries are not well positioned to make the right decisions regarding

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training and skills acquisition for managers and employees. Even a developed country such as the UK is struggling with a sizeable segment of its workforce without basic skills. Studies in the UK have found that at least 23% of all adults have inadequate numeric skills. This must also impact on small businesses, which are a major employer in the UK (Addis 2003: 152–161). Lange, Ottens & Taylor (2000) and Duan, Mullins, Hamblin, Stanek, Sroka, Machado & Araujo (2002) state that the percentage of the workforce employed in the UK by SMEs increased from 58% in 1997 to 67% in 2000, underscoring this point. Skinner et al. (2004) report that one in five job vacancies in England remains unfilled because of skills shortages, and that 2.4 million workers lack skills that would make them better at their job. Lange, Ottens & Taylor (2000: 7) report that the barriers to skills development can be divided into four different categories, namely:

- Cultural barriers, which refers to the negative attitudes of SMEs towards skills development
- Financial barriers, which refers to the direct cost of skills development
- Access and provision barriers, referring to the problems that SMEs encounter in attending skills development opportunities
- Awareness barriers, which relate to the lack of knowledge about the skills development opportunities available.

The same type of problem applies to a lesser extent in Europe, where at least 10% of the workforce experiences problems related to poor numeric skills. Similar to South Africa, job creation in Europe is at the higher end of the market (in other words, growth on the highly skilled side of the workforce, and a growing number of workers being unemployable as a result of a lack of essential skills such as numeracy and literacy) (Skinner et al. 2004). What is of particular interest is that it is the smaller businesses in the UK (defined as employing fewer than 20 workers) that are suffering the most with the problem of a lack of literacy and numerical skills (Addis 2003: 152–161).

In the USA, similar problems are identified with workers that lack basic literacy and mathematical skills (Rossheim 2002). The US National Association of Business Economists states that 58% of reporting companies have a shortage of skilled workers (Fernald et al. 1999: 311). The *American City Business Journal* reports that 63% of small businesses have problems with either hiring or retaining employees (Stansell 2000) and that a serious lack of skilled workers will begin to surface in 2005, which will grow to 5.3 million by 2010 (Wolfe 2004). According to the Council of Competitiveness, this acute skills shortage threatens the foundation of American competitiveness (Fernald et al. 1999: 311). The workplace deficiencies listed include:

- A lack of good work habits
- Poor people skills
- Poor cognitive skills specific to the workplace
- Poor technical knowledge.

Training is regarded as imperative for rectifying the problem in the USA. Traditionally, training and development were not seen as small business activities that create value and help a small business to be competitive. Training in small businesses is not really encouraged, for reasons such as financial constraints and a lack of support from management. Research in the USA found that fewer than 19% of small businesses have formal training programmes for new employees, compared with 44% for larger organisations (Fernald et al. 1999: 314). This view is slowly changing, and special interest is now shown in trying to determine the needs of small businesses. In research undertaken by Fernald et al. (1999: 317) on the customer base of the Small Business Development Centres in the USA, the following list of business skills needs was identified by the owners/managers of small businesses, for their workers (in order of priority):

- How to increase sales (marketing skills)
- How to promote the business (marketing skills)
- How to research the market (marketing research skills)
- How to conduct financial analysis and control (financial management skills)
- How to obtain capital (financial management skills)
- How to obtain government contracts (purchasing/procurement skills).

Additional skills needed include:

- Computer systems training (information management skills)
- Accounting and record keeping (accounting skills)
- International trade knowledge (international management skills)
- Managing the inventory (purchasing/procurement skills)

- Managing personnel (human resource management skills).

Fernald et al. (1999: 319) refer to the fact that in the specific area of management training, the owners/managers mentioned the following business skills that they need to acquire (in order of priority):

- Time management
- Basic business and financial skills
- Updates on tax laws
- Conflict management and problem solving
- Quality management
- How to improve interpersonal communications
- Training employees
- Providing career development for employees.

Lastly, looking at the situation in South Africa, a study published by the Global Entrepreneurship Monitor (GEM) in 2001 reported an overall lack of entrepreneurial elements in the culture of South Africa (Driver, Wood, Segal & Herrington 2001: 15). In the GEM report of 2003, it is stated that if black entrepreneurs' new ventures were as successful as those of their white counterparts in South Africa, they would have created 500 000 new jobs (Ueckermann 2004). Orford, Herrington & Wood (2004: 15) mention in the GEM 2004 report that the total entrepreneurial activity of white entrepreneurs is nearly double that of black South Africans. The entrepreneurs referred to obviously include numerous small businesses and retailers. In the GEM 2004 report, a programme is proposed to empower black entrepreneurs and to increase the survival rate of newly established black businesses. The crux of this programme focuses on the development of business skills. In this report, it was found that South African entrepreneurs felt that they have half the business skills to start a new business compared with their foreign counterparts, which indicates *inter alia* that more needs to be done at school level, as most of these potential entrepreneurs are young, unemployed people (Orford et al. 2004).

Another area where help is needed is with existing black small businesses. Research has shown that basic financial management skills are a major problem and that businesses that adhere to basic financial and accounting practices have three times less chance of encountering cash flow problems (Orford et al. 2004). Other South African research by Ligthelm & Masuku (2003: 7–10) confirms that entrepreneurial training forms the cornerstone of an enabling environment to initiate and grow small businesses.

Another South African study by Van Eeden et al. (2003: 13) indicated that problems encountered by South African small businesses in the three metropoles of Nelson Mandela, Cape Town and Egoli can be categorised into the following areas (in order of priority):

- Macro environmental problems, which refers to economic and social problems such as unemployment, crime and HIV/AIDS
- Marketing problems, such as a lack of knowledge of the market and more specifically the target market, a lack of knowledge about competitors and ineffective marketing practices
- Management problems, *inter alia* a lack of management experience, knowledge and skills
- Social problems, which relates to long working days, family and social pressures and ill health due to the pressures of business
- Human resources problems, referring to procurement problems in not finding suitable staff, poorly trained workers and poor labour relations practices
- Financial problems, *inter alia* the acquisition, allocation and management of capital, as well as insufficient knowledge of bookkeeping.

The South African government is aware of the various skills deficiencies that exist and has made various skills development and employment opportunities (treatments) available to small retail establishments in South Africa. Retail establishments are defined as those primarily involved in selling merchandise to the final consumer and facilitating the services incidental to the sale of the merchandise (Strydom 2002: 19; Rosenbloom 2004: 49; Dunne & Lusch 2005: 3). These skills development opportunities were also made available to retailers conducting business in Mamelodi. Government receives R350 million a month in the form of skills development levies (*Sake-Rapport* 2005). This money is disbursed through the different sector education and training authorities (SETAs), of which the Wholesale and Retail SETA (W&RSETA) is but one. Various institutions, such as the Department of Trade and Industry and the W&RSETA, offer skills development programmes. The W&RSETA has a dedicated SMME development project aimed at providing free training to SMMEs in the wholesale and retail sector. Skills development is offered in the following government-identified priority areas that are needed by small retailers (W&RSETA [S.a.]):

- Customer care (NQF Level 4)
- Sales and marketing (NQF Level 4)

- Computer skills (NQF Level 2)
- Merchandising (NQF Level 2)
- Financial management/Business start-up (NQF Level 5).

In addition, skills development opportunities are offered in the form of Employment and Skills Development Lead Employer (ESDLE) projects. An ESDLE project can be described as a company that employs learners and manages the placement of the learners with host employers for on-the-job training to complete a regulated training programme. The aim is to organise the placement of learners with a number of employers to support the development of skills most likely to improve employment and further training opportunities. As a result, entry level to the labour market for people who are experiencing difficulty in gaining employment is enhanced. Further benefits to the learners employed under the ESDLE project are:

- Attaining a national qualification
- Being supported through the training period
- Being provided with a structured learning environment
- Being protected from premature termination of the programme.

It can therefore be seen that various opportunities exist for small retailers and their employees to increase their skills levels and to undergo specific business training.

Employment generation by small businesses

Amini (2004) states that small businesses contribute more to job creation in countries with low levels of income than in high income-generating countries. He refers further to studies that show that in terms of employment and distribution of income, small businesses are more effective in developing countries than in industrialised countries. Research conducted by the University of Cape Town's Centre for Innovation and Entrepreneurship as part of the 2001 Global Entrepreneurship Monitor project (GEM) shows that in a developing country such as South Africa, formal entrepreneurs (defined as those with registered businesses) employ an average of 7.2 people, compared with 0.8 people employed by their informal or unregistered counterparts (Driver et al. 2001). Considering that formal registered businesses make up only 12% of privately owned business activity in disadvantaged areas, it can be seen that while informal unregistered businesses remain enormously important in generating income, they do not play a large enough role in the creation of employment for others. A 2003 Bureau of Market Research study, which covered most of the metropolitan areas of South Africa and some of the rural areas such as KwaNdebele and Kanyamazane, found that township general dealers employ on average 3.84 employees (Ligthelm & Masuku 2003: 8). Township general dealers are described in this report as "stand-alone businesses with a brick and mortar superstructure often located in a business area but may also be in residential sections of townships. They carry a wider product range than spazas and have more fixtures and fittings allowing self service to clients" (Lighthelm & Masuku 2003: 7–10). These general dealers can, to all intents and purposes, be classified as part of the formal retailing structure of South Africa, located in the previously disadvantaged areas of South Africa. Because of the size of employment (fewer than 10 employees), these township general dealers can also be regarded as small retail establishments.

Aim of the research

With this as background, the aim of the research undertaken was to determine the ability of small retail establishments in an area such as Mamelodi to develop skills and create employment. To attain this, the outcome of a skills and employment survey conducted in 2003 among a sample of small retail establishments in Mamelodi (the control group) was compared with the outcome of a similar skills and employment survey conducted 18 months later at the end of 2004 among small retail establishments in the same area (the experimental group).

Research methodology

The research methodology used for this research followed a tracking study approach in which the results from a control group of small retail establishments in Mamelodi were compared with the results obtained from an experimental group of retail establishments in the same area 18 months later. The characteristics of the control and experimental groups will now be discussed.

Control group

As the basis of the tracking study, the research results of a control group of 69 small retail establishments, surveyed in 2003, were used. The skills training/development and employment practices of this control group were surveyed. In this survey, the Bureau of Market Research focused on the informal retail sector of South Africa, using a database of 14 218 retailers in disadvantaged areas as the universe (Ligthelm & Masuku 2003: 7–10). Random systematic sampling was undertaken in this study, and the respondents were categorised into three categories, namely hawker tables, spazas/tuck shops (both classified as informal retailers) and township general dealers. In total, 481 respondents were interviewed, of which 69 (14.4%) were classified as township general dealers. The 69 township general dealers were interviewed in the following areas: Soweto, Mamelodi, Mabopane, Garankuwa, Tsakone, Daveyton, Mdontsane, Zwida/KwaZakhele, Umlazi/KwaMashu, Kyalitsha, Mitchells Plain, Grassey Park, Kanyamazane/Kabokweni and Kwandebele. In general, this study covered all the metropolitan areas of South Africa and provided a clearer picture of the formal and informal retailing activities in the disadvantaged areas of South Africa. On average, only five to six township general dealers were interviewed in each of the 13 areas mentioned.

Some of the main findings of this survey regarding qualification levels, status of training and employment levels are depicted in Table 1.

Experimental group

To track the changes in the skills levels and employment profiles over a period of 18 months, a survey was done towards the end of 2004 in the Mamelodi township of the Tshwane Metropolitan Area of Gauteng, South Africa. An empirical survey by means of a structured questionnaire was conducted, and in the absence of a comprehensive sample frame of retailers in this region, street maps of the Tshwane City Council were used, indicating all the formal business areas in Mamelodi. To be included in the random sampling process, respondents had to fulfil the following requirements:

- Operated from a demarcated business area
- Housed in a permanent structure
- Employing ten or fewer full-time employees
- Being part of the retailing sector in that they were selling merchandise to the final consumer.

In total, interviews were completed with the managers or owners of 156 retailing businesses in this area. These respondents had had the opportunity to develop the skills of the employers/employees in their respective businesses through participation in various training/development programmes offered by public and private training providers.

Contrast hypotheses

To measure the impact of the available skills development opportunities and the employment initiative of small retail establishments operating in the Mamelodi area, the following three null and alternative hypotheses were formulated:

> The percentage of managers and owners of the small retail establishments with business skills in the control group does not differ significantly from the percentage of managers/owners of small retail establishments with business skills in the experimental group

Symbolically, these null and alternative hypotheses could be stated as follows:

Null hypothesis:
Alternative hypothesis:

Table 1: Main findings of the control group regarding skills and employment

Qualification level	Just over 56% of the owners of small retail establishment have a Grade 12 qualification or higher (36.2% have a Grade 12 qualification and 20.3% have a post-matric qualification).
Formal business training skills	Only 18.8% of the small retail establishments have formal business training of some kind.
Skills needed	The most urgent business training needs identified by these respondents are for general management skills (83.3%), marketing skills (63.3%) and bookkeeping skills (571%).
Number of full-time employees	The average number of full-time employees employed by the small retail establishments was 3.84.

The percentage of small retailers in Mamelodi with matric and post-matric qualifications remained the same over the 18-month period.

Symbolically, these null and alternative hypotheses could be stated as follows:

Null hypothesis:
Alternative hypothesis:

The average number of workers employed by the small retail establishments remained the same over the 18-month period.

Symbolically, these null and alternative hypotheses could be stated as follows:

Null hypothesis:
Alternative hypothesis:

Hypotheses testing

The significance levels for the three null hypotheses are set as = 0.05.

Testing of hypothesis 1

A confidence interval approach was used to test this hypothesis. Table 2 shows the sample statistics of the control and experimental groups.

Table 2: Sample statistics of the control and experimental groups for hypothesis 2

Control group (2003 survey)	Experimental group (2004 survey)
Sample size = 69	Sample size = 156
Percentage with business qualifications = 18.8%	Percentage with business qualifications = 25.6%

Based on sample statistics for the two surveys, the standard deviation of the difference between and can be calculated as follows:

— —

Therefore

— —

For the two-tailed hypothesis, the critical values of the test statistic (z = 1.96) can be calculated as follows:

Observed value of test statistic is used to decide on the outcome of the hypothesis and can be calculated as follows:

Comparison of observed and critical values

The observed value of 6.8% falls between the two critical values of –12.0% and +12.0%. The null hypothesis can therefore not be rejected in favour of H_1.

There is thus no statistical difference between the number of small retailers in Mamelodi with business qualifications in 2003 (control group), as reported by the Bureau of Market Research study, and township general dealers in the disadvantaged areas of South Africa in 2004 (experimental group). There was therefore no significant progress in the development of business skills of these small retail establishments over the 18-month period, notwithstanding the opportunities available to them.

Testing of hypothesis 2

The confidence interval approach to hypothesis testing was used to test the hypothesis. The sample statistics for the control and experimental groups are shown in Table 3.

Table 3: Sample statistics for the control and experimental groups for hypothesis 2

Control group (2003 study)	Experimental group (2004 study)
Sample size = 69	Sample size = 156
Percentage with matric and post-matric qualifications = 56.5%	Percentage with matric and post-matricqualifications = 64.1%

Based on sample statistics for the two studies, the standard deviation of the difference between and can be calculated as follows:

— —

Therefore

For the two-tailed hypothesis, the critical values of the test statistic (z = 1.96) can be calculated as follows:

Observed value of test statistic is used to decide on the outcome of the hypothesis and can be calculated as follows:

Comparison of observed and critical values

The observed value of 7.6% falls between the two critical values of –13.8% and +13.8%. The null hypothesis can therefore not be rejected in favour of H_2.

It can therefore be stated that there is no statistical difference between the number of small retailers in Mamelodi with matric or post-matric qualifications in the control and experimental groups. There was therefore again no significant progress in the development of qualifications by these small retail establishments over the 18-month period, notwithstanding all the opportunities available to them.

Testing of hypothesis 3

The confidence interval approach was used to test the hypothesis. Table 4 shows the statistics of the control group and the experimental group:

Based on sample statistics for the two studies, the standard deviation of the difference between and can be calculated as follows:

For the two-tailed hypothesis, the critical values of the test statistic (z = 1.96) can be calculated as follows:

The observed value of 0.10 falls between the two critical values of –0.1070849 and +0.1070849. The null hypothesis can therefore not be rejected in favour of H_3.

It can therefore be stated that there is no statistical difference between the average number of employees employed by small retailers in Mamelodi in the control group and the experimental group. There was therefore no significant progress in the average number of workers employed by these small retail establishments over the 18-month period, notwithstanding all the skills development opportunities available to them.

Conclusions

The research conducted among the sample population, namely small retailers in the Mamelodi township of Gauteng, South Africa, confirmed the findings of the 2003 Bureau of Market Research study regarding the level of qualifications, level of business training and average number of workers employed by township general dealers in the major metropolitan areas. For the purposes of the study, the information gathered for the 2003 survey was used as a control group. In 2004, a follow-up study was done in the Mamelodi area among a group called the experimental group. A comparison of the results of these two surveys shows close similarities with no statistically significant changes in the qualification levels and the average employment levels over the period of investigation. Retailers in the experimental group were asked why they did not enrol for business training; 12.8% indicated that they did not have a need for business training, while a sizable group (28.2%) reported that they did not have the money to pay for this kind of training. As shown, there are various opportunities available, *inter alia* from the Department of Trade and Industry and the W&RSETA, for retailers to participate in training for free. This clearly shows a lack of knowledge and awareness of the training opportunities available to retailers. However, it also reflects negatively on the marketing, communication and

Table 4: Sample statistics for the control and experimental groups for hypothesis 3

Survey	Average number of workers	Standard deviation	Sample size
Control group = (2003 survey)	3.84		= 69
Experimental group = (2004 survey)	3.74		= 156

information campaigns of the education and training authorities. Serious consideration must be given to ensuring that retailers in this area are aware of the skills development opportunities available and the fact that these development opportunities are free of charge. Furthermore, the respective education and training authorities must urgently re-evaluate the methods used to inform retailers about skills development opportunities, as the current communication methods are clearly not delivering the necessary results.

It can be concluded that small retailers are not a major creator of employment in the Mamelodi area. Only when these small retailers are informed about and convinced of the advantages of skills development resulting from participating in these training interventions will they be in a position to contribute positively to job creation in the Mamelodi area as well as in South Africa in general.

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Work engagement of employees at a higher education institution in South Africa

S.E. Coetzee & S. Rothmann

*The objectives of this study were to assess the factorial validity of the Utrecht Work Engagement Scale (UWES) for employees of a higher education institution in South Africa (the Vaal University of Technology) and to determine differences between the work engagement levels of different language groups, different job categories and employees with different years of service at the institution. A cross-sectional survey design (*N *= 372) was used. The UWES and a biographical questionnaire were administered. Structural equation modelling confirmed a three-factor model of work engagement, consisting of vigour, dedication and absorption, with acceptable internal consistencies. Practically significant differences were found in engagement levels of employees in different language groups, those with different years of service at the institution, as well as between academic and administrative employees.*

Introduction

Work can lead to illness as well as to health. On the one hand, work requires effort and is associated with lack of freedom and negative feelings. On the other hand, work gives energy, enables development and generates positive feelings (Rothmann 2003). Research in occupational health psychology is dramatically weighted on the side of ill-health and lack of well-being, rather than health and well-being (wellness) at work. Diener, Suh, Lucas & Smith (1999) showed that 17 times more scientific articles were published on negative feelings compared with positive feelings. Myers (2000) found a more favourable ratio of 14:1. He mentions that since 1887, 8 000 articles have been published in *Psychological Abstracts* about anger, almost 57 000 about anxiety and almost 70 000 about depression. In comparison, 851 of the published articles were about joy, 2 958 about happiness and 5 701 about satisfaction. However, after World War II, psychology became a science that focused largely on healing.

This general trend culminated in the recent introduction of the so-called 'positive psychology' (Seligman & Csikszentmihalyi 2000), landmarking a shift from the traditional focus on weakness and malfunctioning (namely, pathology) towards human strengths and optimal functioning (namely, fortology) (Strümpfer 1995, 2002). Attempts to discover 'what can go right' as opposed to 'what can go wrong' have become the focus of modern psychology (Tytherleigh 2003). Similar tendencies can be detected in burnout research literature. Where burnout originally focused more on 'pathology', recent emphasis tends to be more on the 'positive' perspective. Empirical studies revealed that some employees, regardless of high job demands and long working hours, in comparison to others, do not develop burnout, but seem to find pleasure in hard work and dealing with job demands (Schaufeli & Bakker 2001). Consequently, theoretical and empirical studies commenced on the concept of engagement, theoretically viewed as the antithesis of the burnout construct.

Development of the engagement construct took two different but related paths. Firstly, Maslach & Leiter (1997: 23) rephrased burnout as "an erosion of engagement with the job". Work that started out as important, meaningful and challenging becomes unpleasant, unfulfilling and meaningless. They characterise engagement by energy, involvement and efficacy, which are considered the direct opposites of the three burnout dimensions, namely, exhaustion, cynicism and lack of professional efficacy. Engagement is then assessed by the opposite pattern of scores on the three Maslach Burnout Inventory (MBI) dimensions. Low scores on exhaustion and cynicism and high scores on efficacy are indicative of engagement. The second path was taken by Schaufeli and his colleagues, agreeing in part with the description of engagement

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proposed by Maslach & Leiter (1997), with the difference that engagement be measured with a different instrument worthy of operationalisation in its own right (Schaufeli, Salanova, Gonzáles-Romá & Bakker 2002).

Schaufeli, Salanova et al. (2002) consider burnout and work engagement to be opposite concepts that should be measured independently and with different instruments. They define 'work engagement' as "a positive fulfilling, work-related state of mind that is characterized by vigour, dedication and absorption" (Schaufeli, Salanova et al. 2002: 71). 'Vigour' is characterised by high levels of energy and mental resilience while working, the willingness to invest effort in one's work, not being easily fatigued, and persistence even in the face of difficulties. 'Dedication' is characterised by deriving a sense of significance from one's work, by feeling enthusiastic about and proud of one's job, and by feeling inspired and challenged by it. 'Absorption' is characterised by being totally and happily immersed in one's work and having difficulties detaching oneself from it. Time passes quickly and one forgets everything else that is around. Work engagement cannot be described as a momentary and specific state. Rather, it is a more persistent and pervasive affective-cognitive state that is not focused on a particular object, event, individual or behaviour (Schaufeli, Salanova et al. 2002).

Since 1994, the landscape of higher education in South Africa has been changing. One of the focus areas of redress of the post-apartheid government is the education system (Cross, Mungadi & Rouhani 2002). At an institutional level, this entails the introduction of policies and mechanisms aimed at redress at different levels, as well as huge demands in terms of access to education (Kraak 2000). This has resulted in a restructuring of the higher education system in South Africa, which poses various challenges to the management as well as the employees of tertiary institutions. New organisational cultures have to be introduced; values, cultural norms and organisational support systems are subjected to ongoing change; peer support within the organisation is challenged, with issues such as equity, diversity, resistance and an organisational climate that is being continually and inevitably influenced by ongoing change.

Higher education institutions can make an important contribution to the reconstruction and development of South Africa (Marais, Grobbelaar & Potgieter 1997), and in this process, those responsible for producing the outcomes of higher education institutions have an important role to play. Administrators, lecturers/teachers and support staff comprise the 'human capital' of an educational institution, and it is therefore important to care for these groups of people (Alexy 1991; Blaise 1996; Seldin 1991).

During the past eight years, the student population at the institution has been transformed from predominantly white to predominantly black students. This has led to the change of the official language used at the institution from Afrikaans to English. During the same period (in compliance with the equity legislation passed by the post-apartheid government of South Africa), a decision was made to appoint only designated groups (that is, black, Indian, Coloured and white female applicants, in that order of preference) to vacant positions to ensure that the staff component reflects the demographics of the area (the Vaal Triangle). Consequently, the staff component has changed from predominantly white to demographically representative, and the management of the institution has also been transformed. The current scenario in higher education, including the scenario in this specific institution, will inevitably have an impact on the work engagement of employees. Research on work engagement therefore seems relevant.

Utrecht Work Engagement Scale (UWES)

Schaufeli, Salanova et al. (2002) propose that engagement is theoretically viewed as the opposite end of the continuum from burnout, which cannot be effectively measured by the Maslach Burnout Inventory (MBI), but rather with its own instrument, the Utrecht Work Engagement Scale (UWES). The UWES includes items such as: "I am bursting with energy in my work (vigour); "My job inspires me" (dedication); "I feel happy when I'm engrossed in my work" (absorption). Recent confirmatory factor-analytic studies confirmed the factorial validity of the UWES (Schaufeli, Bakker, Hoogduin, Schaap & Kladler 2001; Schaufeli, Martinez, Pinto, Salanova & Bakker 2002; Schaufeli, Salanova et al. 2002). The findings showed internally consistent results for the three scales of the UWES. In a sample of undergraduate students (N = 314) and a sample of employees (N = 619), adequate Cronbach alphas were found as follows: vigour (6 items), = 0.68 and 0.80; dedication (5 items), = 0.91 for both samples; and absorption (6 items), = 0.73 and 0.75. In the student sample, the value of for the total scale could be improved by eliminating three items (= 0.79). Also, the fit of the hypothesised three-factor model with the data was found to be superior to the one-factor solution (Schaufeli, Martinez et al. 2002).

Naudé & Rothmann (2004) and Storm & Rothmann (2003) studied the internal consistency and factorial validity of the UWES in South Africa. In their study, Storm & Rothmann (2003) found that a respecified one-factor model (after deleting items 3, 11, 15 and 16) fitted the data best in their random, stratified sample of police members in South Africa. Although a respecified three-factor model was also initially tested and satisfactory results obtained, the fit with the data was superior for a one-factor model. Internal consistencies of the three subscales were 0.78 (vigour); 0.89 (dedication) and 0.78 (absorption). Naudé & Rothmann (2004) found a two-factor model of work engagement, consisting of vigour/dedication and absorption. The Cronbach alpha coefficient of the vigour/dedication scale was acceptable (= 0.87), but the coefficient for the absorption scale was questionable (= 0.61).

Since the development of the UWES by Schaufeli, Salanova et al. (2002), very few studies regarding engagement could be found in the literature (Maslach, Schaufeli & Leiter 2001; Naudé & Rothmann 2004; Schaufeli et al. 2001; Schaufeli, Martinez et al. 2002; Schaufeli, Salanova et al. 2002; Storm & Rothmann 2003). As a result, information regarding differences in engagement levels is almost non-existent. This study will be an attempt to determine differences in engagement levels of employees at a higher education institution in South Africa, and the focus will be on gender, age, job category, language group and years of service at the institution.

Bearing in mind that engagement is seen as the positive antithesis of burnout (Schaufeli, Salanova et al. 2002), it can be postulated that, if engagement reflects the opposite image of the findings in the burnout literature, the following patterns can be expected: Men will be more engaged in their work than women, as Schaufeli & Enzmann (1998) found that women reflect higher levels of burnout than men. Furthermore, younger employees and those with less years' experience will reflect lower levels of engagement, as Cherniss (1980) and Maslach, Jackson & Leiter (1996) found higher levels of burnout among younger employees with less years' experience. Cash (1988) found that individuals with a higher level of education were more prone to burnout. Schutte, Toppinen, Kalimo & Schaufeli (2000) found that no significant differences in burnout levels across cultures could be detected.

The objective of this study was to determine the construct validity and internal consistency of an adapted version of the UWES for employees at a higher education institution in South Africa and to determine whether employees experience different levels of engagement based on biographical characteristics such as language, age, years of service, job category and gender.

Method

Research design

A cross-sectional design was used to achieve the objectives of this research. Shaughnessy & Zechmeister (1997) propose that cross-sectional designs are suitable for the development and validation of questionnaires (in this case the UWES).

Participants

The study population comprised academic and administrative staff at the Vaal University of Technology in South Africa. The survey was conducted from June to September 2003. A total of 820 questionnaires were sent out: academic staff (N = 320); and administrative staff (N = 500). A total of 372 completed questionnaires were received back. This comprised 175 questionnaires from academic and 197 questionnaires from administrative staff members, giving a total response rate of 45.36% (47.04% for academic staff and 52.96% for administrative staff).

Females constituted 61% of the participants. Different language groups were included in the study. A total of 54.60% of the participants were Afrikaans-speaking; 19.50% were English-speaking, and 25.90 spoke African languages. The majority (43.80%) of the participants were married. In total, 24.44% of the population had obtained a masters or related degree and/or higher qualifications. Furthermore, 33.52% of the participants had been at the institution for ten years or more. The characteristics of the participants are shown in Table 1.

Instruments

The Utrecht Work Engagement Scale (UWES) (Schaufeli, Salanova et al. 2002) was used to measure levels of engagement. Although work engagement is conceptually seen as the positive antithesis of burnout, it is operationalised in its own

Table 1: Characteristics of participants

Item	Category	Frequency	Percentage
Employment category	Academic	175	47.00
	Administrative	197	53.00
Gender	Male	135	39.00
	Female	227	61.00
Language	Afrikaans	202	54.60
	English	72	19.50
	African	98	25.90
Education	Highest grade/standard	82	22.04
	3-year qualification	85	22.85
	4-year qualification	114	30.60
	Masters	68	18.30
	Doctoral	24	6.14
Marital status	Single/Divorced	70	18.80
	Engaged/in relationship	139	37.40
	Married	163	43.80
Years of service in the institution	0–5 years	116	31.29
	5.1–10 years	131	35.19
	10+ years	125	33.52
Age distribution	21–30	74	19.94
	31–40	138	37.19
	41–50	98	26.21
	51–60	62	15.95

right. Work engagement is a concept that includes three dimensions: vigour, dedication and absorption. Engaged workers are characterised by high levels of vigour and dedication, and they are immersed in their jobs. The UWES is scored on a seven-point frequency scale, ranging from 0 (never) to 6 (every day). Three dimensions of engagement can be distinguished, namely vigour (6 items, for example, ''I am bursting with energy in my work''), dedication (5 items, for example, ''I find my work full of meaning and purpose'') and absorption (6 items, for example, ''When I am working, I forget everything else around me''). In terms of internal consistency, reliability coefficients for the three subscales between 0.68 an 0.91 have been determined. Improvement of the alpha coefficient (ranging from 0.78 to 0.89) seems possible without adversely affecting the internal consistency of the scale (Storm & Rothmann 2003).

A biographical questionnaire was designed to gather information regarding, among other things, gender, position, education and marital status.

Statistical analysis

The statistical analysis was carried out with the help of the SAS program (SAS Institute 2000). Confirmatory factor analysis was conducted with the AMOS program (Arbuckle 1997).

In order to test the factorial validity of the UWES, structural equation modelling (SEM) methods were initially used with the maximum likelihood method of the AMOS program (Arbuckle 1997). In the SEM analysis, the hypothesised structural relationships are empirically tested by means of goodness-of-fit with the sample data. The statistic and several other goodness-of-fit indices summarise the degree of correspondence between the implied and observed covariance matrices. According to Byrne (2001), should not be used as the sole indicator of model fit in the behavioural sciences. The following fit indices were therefore used in this study: (1) the /degrees of freedom ratio (CMIN/DF), which should be lower than 5; (2) the Goodness of Fit Index (GFI) and Adjusted Goodness-of-Fit Index (AGFI), which should be higher than 0.90; (3) the Normed Fit Index (NFI), which should be higher than 0.90; (4) the Comparative Fit Index (CFI), which should be higher than 0.90; (5) the Tucker-Lewis Index (TLI), which should be higher than 0.90, and (6) the Root Mean Square Error of Approximation (RMSEA), which should be lower than 0.08.

Descriptive statistics were used to analyse the data. Cronbach alpha coefficients and inter-item correlation coefficients were used to assess the internal consistency, homogeneity and unidimensionality of the scales of the UWES (Clark & Watson 1995). Multivariate analysis of variance (MANOVA) was used to determine the significance of differences between engagement levels as influenced by various biographical characteristics of the sample. MANOVA tests whether mean differences among groups on a combination of dependent variables are likely to have occurred by chance (Tabachnick & Fidell 2001). Wilks' Lambda was used to test the significance of the effects. When an effect was significant in MANOVA, ANOVA was used to discover which dependent variables were affected. Tukey tests were conducted to indicate which groups differed significantly when ANOVAs were done.

T-tests were used to determine differences between the groups in the sample. Effect sizes (Cohen 1988; Steyn 1999) were used in addition to statistical significance to determine the significance of relationships. According to Cohen (1988), 0.10 *d* 0.50 indicates a small effect, 0.50 *d* 0.80 indicates a medium effect, and *d* 0.80 indicates a large effect. A cut-off point of 0.50 (medium effect) (Cohen 1988) was set for the practical significance of differences between group means.

Results

Hypothesised model of the UWES

Firstly, the unidimensional model, which assumes that all 17 UWES items load on a single factor, was tested. Consequently, the hypothesised 17-item three-factor UWES model and adaptations thereof were fitted with the data. Table 2 provides a summary of the fit statistics for the hypothesised UWES models.

The fit statistics for the one-factor model revealed very poor overall fit, as indicated by the statistically significant value of 1 456.77 (*df* = 323.72; $p <$ 0.01). All the other fit indices confirmed a poor fit with the data.

For the three-factor (17-item) model, the SEM analysis yielded a poor fit between the theoretical model and the empirical data. The statistically significant value of 464.42 (*df* = 116; $p < 0.01$), and the elevated RMSEA value indicate that possible existing misspecifications in the theoretical model could be modified for model-fit improvement in the *post hoc* analysis. However, both the sensitivity of the likelihood ratio test to sample size and its basis on the central distribution, which assumes that the model fits the population perfectly, have been reported to lead to problems of fit. Jöreskog & Sörbom (1993) pointed out that the use of is based on the assumption that the model holds exactly in the population, which is a stringent assumption. A consequence of this assumption is that models that hold approximately in the population will be rejected in a large sample. Furthermore, the hypothesised model (Model 1) was also not good from a practical perspective. The NFI, TLI and CFI values of lower than 0.95 and the RMSEA value of higher than 0.05 are indicative of failure to confirm the hypothesised model. It is thus apparent that some modification in specification is needed in order to determine a model that better represents the sample data.

To pinpoint possible areas of misfit, modification indices were examined. Furthermore, standardised residual values were examined. Standardised residuals are fitted residuals divided by their asymptotic (large samples) standard errors (Jöreskog & Sörbom 1988). In essence, they represent estimates of the number of standard deviations the observed residuals are from the zero residuals that would exist if model fit were perfect (Byrne 2001). Values of > 2.58 are considered to be large (Jöreskog & Sörbom 1988).

Post hoc analysis

Given the poor fit of the initially postulated three-factor model, the focus shifted from model test to model development (exploratory factor analysis). Considering the high standardised residuals of two items, it was decided to respecify the model with item 4 and item 15 deleted. In previous South

Table 2: Goodness-of-fit statistics for the hypothesised UWES models

Model		/*df*	GFI	AGFI	NFI	TLI	CFI	RMSEA
17-item 1-factor model	1456.77	4.50	0.72	0.68	0.62	0.65	0.68	0.10
17-item 3-factor model	464.42	4.00	0.87	0.82	0.84	0.85	0.87	0.09
15-item 3-factor model	406.22	3.50	0.88	0.84	0.87	0.88	0.90	0.08
13-item 3-factor model (1)	301.44	3.46	0.90	0.86	0.89	0.91	0.92	0.08
13-item 3-factor model (2)	263.36	3.10	0.91	0.87	0.91	0.92	0.94	0.08

African studies, item 4 (Storm & Rothmann 2003) and item 15 (Naudé & Rothmann 2004) were also problematic.

This respecified 15-item three-factor model showed a small improvement in the fit statistics in comparison with the previous models. A further attempt at model development was investigated. The high standardised residuals of item 16 and item 17 indicated respecification by deleting these items. This decision was supported by the notion that items 16 and 17 were not initially included in the UWES (Schaufeli, Salanova et al. 2002). Consequently, these items were deleted in the hope of a better fit. Table 2 shows a moderate fit between the theoretical model and the empirical data. The statistically significant value of 301.44 (*df* = 87; $p < 0.01$) and the elevated RMSEA value still indicate possible existing misspecifications.

Modification indices (MI) were consequently considered to pinpoint areas of misspecification in the model. The constrained parameters exhibiting the highest degree of misfit lay in the error covariance matrix and represent a correlated error between item 3 and item 9 (MI = 13.74), as well as between item 7 and item 13 (MI = 10.43). Compared with MI values for all other error covariance parameters, these values are high and in need of respecification. Based on the modification indexes and on theoretical considerations, the errors of these two-item pairs were allowed to correlate. According to the fit statistics in Table 2, an overall acceptable fit with the data is obtained by the third respecified three-factor model. The value of 263.36 (*df* = 85; $p < 0.01$) is significantly higher than that of the first three-factor model fitted to the data. Furthermore, the goodness-of-fit statistics indicate acceptable levels of model fit for the GFI, NFI, TLI and CFI, with AGFI approaching 0.90. Moreover, the RMSEA of 0.08 is indicative of acceptable fit. Since model fit was determined to be acceptable, and the results agree with the theoretical assumptions underlying the structure of the UWES (Schaufeli, Salanova et al. 2002), no further modifications of the model were deemed necessary.

The descriptive statistics, alpha coefficients and inter-item correlations of the three factors of the UWES are given in Table 3.

The results in Table 3 indicate that the three dimensions of the engagement model are normally distributed. The internal consistency of the three scales of the UWES is acceptable, with Cronbach alphas above the 0.70 guideline provided by Nunnally & Bernstein (1994). The mean inter-item correlation of absorption is considered acceptable compared with the guideline of 0.15 r 0.50 (Clark & Watson 1995). The mean inter-item correlations of vigour and dedication were somewhat higher than the suggested guideline of $r < 0.50$.

Consequently, MANOVA and ANOVA analyses were done to determine the relationship between engagement and various biographical characteristics such as language, age, gender, job category and years of service at the institution. Biographical characteristics were first analysed for statistical significance using Wilks' Lambda statistics. The results are shown in Table 4.

An analysis of Wilks' Lambda values indicates statistically significant differences (p 0.01) for different language groups and categories of years' experience at the institution. No statistically sig-

Table 3: Descriptive statistics, alpha coefficients and inter-item correlations of the UWES

Item	Mean	SD	Skewness	Kurtosis	*r*(Mean)	
Vigour (VI)	19.63	6.85	–0.53	–0.51	0.51	0.84
Dedication (DE)	21.54	7.13	–0.62	–0.56	0.59	0.88
Absorption (AB)	19.66	6.10	–0.47	–0.12	0.33	0.70

Table 4: Differences in engagement levels based on biographical characteristics

Variable	Value	*F*	*df*	Den DF	*p*
Language	0.89	6.93	6	708	0.00*
Age	0.98	1.44	6	690	0.20
Years' experience	0.92	5.28	6	704	0.00*

* Statistically significant difference: p = 0.01

Table 5: Differences in engagement levels of different language groups

Dimension	Afrikaans	English	Indigenous	*p*	Root MSE
Vigour	18.50[b]	19.94	21.69[a]	0.00*	6.77
Dedication	20.92	20.97	23.44	0.02	7.02
Absorption	20.01	19.29	18.93	0.35	6.13

* Statistically significant difference: p = 0.01

a Practically significant differences from group (in row) where b (medium effect, d = 0.5) or c (large effect, d = 0.8) are indicated

Table 6: Differences in engagement levels of years' experience categories

Dimension	0–5 years	5.1–10 years	10.1–44 years	*p*	Root MSE
Vigour	22.00[b]	20.01	17.76[a]	0.00*	6.77
Dedication	23.52	21.51	20.58	0.05	7.06
Absorption	20.63	19.11	20.06	0.20	6.15

* Statistically significant difference: p = 0.01

a Practically significant differences from category (in row) where b (medium effect, d = 0.5) or c (large effect, d = 0.8) are indicated

Table 7: T-tests – differences in engagement levels based on job category

Dimension	Academic		Administration		*t*	*p*	*d*
	Mean	SD	Mean	SD			
Vigour	18.56	6.98	20.59	6.61	–2.87	0.00*	0.29
Dedication	20.90	6.71	22.12	7.45	–1.66	0.10	—
Absorption	19.65	6.52	19.66	5.71	–0.02	0.98	—

* Statistically significant difference: p = 0.01

nificant differences (p 0.01) regarding engagement levels could be found between different age groups.

The relationship between engagement and those biographical characteristics that showed a statistically significant difference was further analysed to determine practical significance using ANOVA, followed by Tukey HSD tests.

The ANOVAs of differences in engagement levels among the different language groups are given in Table 5.

According to Table 5, indigenous language groups scored significantly higher (practically significant difference, medium effect) than the Afrikaans language group in terms of vigour.

Table 6 shows the ANOVAs of differences in engagement levels for different categories of years' experience at the institution.

Table 6 shows that employees with less than five years' experience at the institution scored significantly higher (practically significant difference, medium effect) on vigour in comparison with employees with more than ten years' experience at the institution.

Table 7 gives an indication of differences in engagement levels based on job category as indicated by t-test procedures. No statistically significant differences regarding gender could be found.

Table 7 indicates that the administrative staff component scored statistically significantly higher on the vigour dimension of engagement in comparison with the academic staff component (practically significant difference, small effect). No statistically or practically significant differences were observed regarding the other engagement dimensions and job category.

Even though it was expected that men would reflect higher levels of engagement, no significant differences between the genders could be detected; it was expected that younger employees would be less engaged, but no significant differences between age groups could be found; it was expected that employees with less years' experience would reflect lower levels of engagement, but in contrast, it was found that those with more than ten years' experience were less engaged; as expected, the administrative staff component showed higher levels of engagement than the academic staff; and in contrast with expectations that no differences would be found between language groups; it was found that the indigenous language groups were more engaged in their work than the Afrikaans-speaking group.

Discussion

The objectives of this study were to assess the factorial validity and internal consistency of the UWES and to determine differences between the work engagement levels of different genders, age groups, language groups, job categories and years' experience at the institution.

The factorial validity of the UWES was investigated with the aid of structural equation modelling. The three-factor structure of the UWES was confirmed for the three scales of the UWES, namely vigour, dedication and absorption. This finding is supported by research in different samples, groups and countries (Naudé & Rothmann 2004; Schaufeli, Martinez et al. 2002; Schaufeli, Salanova et al. 2002; Storm & Rothmann 2003) Moroever, the internal consistency of the scales was found to be satisfactory and in line with findings reported in the literature.

The elimination of item 15 (''I am very resilient, mentally, in my job'') and 4 (''I feel strong and vigorous in my job'') can be validated on both conceptual and theoretical grounds, resulting in a 15-item UWES scale. In their study, Storm & Rothmann (2003) found considerable cross-loadings pertaining to item 15 in their validation of the UWES for police members. Naudé & Rothmann (2004) found the same for item 4. Even though deletion of these items formed part of the *post hoc* analysis, and validation is needed in future studies, the decision to eliminate these items was based partly on previous research (Naudé & Rothmann 2004; Storm & Rothmann 2003) and should therefore not be viewed as a strategy for model modification solely for the purpose of data fitting.

Additional exploratory work revealed substantial improvement in model fit with the additional deletion of item 16, ''It is difficult to detach myself from my job'' and item 17 ''I always persevere at work, even when things do not go well''. These two items were not initially included in the UWES (Schaufeli, Salanova et al. 2002). Error terms were also allowed to correlate in order to improve model fit (Byrne 2001).

Notwithstanding the motivation for deleting variables from the UWES for reasons of bias and model-fit improvement, it is disconcerting that model parsimony is sacrificed in the process. In other words, relationships have been eliminated, which could be viewed as an erosion in meaning of the work engagement construct. Also, it is possible, due to the relatively small sample size and sampling procedure (subgroup representation), that these findings could have been obtained by pure chance. Furthermore, the possibility of semantic differences in meaning attributed to these items cannot be excluded, especially in view of the comparison between groups on the basis of linguistic groupings. Closer inspection of the actual wording of the problematic items (item 4: ''I feel strong and vigorous in my job''; item 15: ''I am very resilient, mentally, in my job''; item 16: ''It is difficult to detach myself from my job''; and item 17: ''I always persevere at work even when things do not go well'') highlight the fact that second-language English speakers might have difficulty interpreting words such as 'vigorous', 'resilient', 'detach' and 'persevere'. Using language that can be easily interpreted might overcome problems with these items, or alternatively, the tests can, where practically possible, be translated into the first language of the participants.

The prominent correlated errors in this study present an important problem. In general, the specification of correlated error items for the purpose of achieving a better-fitting model is not an acceptable practice. Correlated error terms in measurement models represent systematic, rather than random, measurement error in item responses. They may derive from characteristics specific to either the items or the respondents (Aish & Jöreskog 1990). For example, if these parameters reflect item characteristics, they may represent a small omitted factor. However, as may be the case in this instance, correlated errors may represent respondent characteristics that reflect bias such as yea-/nay-saying, social desirability (Aish & Jöreskog 1990), as well as a high degree of overlap in item content (when an item, although worded differently, essentially asks the same question) (Byrne 2001).

However, previous research with psychological constructs in general (for example, Jöreskog 1982; Newcomb & Bentler 1988), and with measuring instruments in particular (Byrne 1991 2001), has demonstrated that the specification of correlated errors can often lead to substantially better-fitting models. Bentler & Chou (1987) also argue that the specification of correlated errors can often lead to substantially better-fitting models. Bentler & Chou (1987) argue that the specification of a model that forces these error parameters to be uncorrelated is rarely appropriate with real data. Therefore, it was considered more realistic to incorporate the correlated errors in this study, rather than to ignore their presence.

Multivariate analysis of variance was used to determine the significance of differences between the engagement levels of different groups of the population, on the basis of their biographical characteristics. Higher levels of the vigour dimension of engagement can be observed among the indigenous language-speaking group (26% of the population) in comparison with the Afrikaans language group (55% of the population). Vigour is characterised by high levels of energy and mental resilience while working, the willingness to invest effort in one's work, not being easily fatigued, and persistence even in the face of difficulties. Against the background of the recent history of this institution, these findings might be better understood.

Since 1994, the student population has been transformed from predominantly white to predominantly black students. During the same period (in compliance with the equity legislation of the post-apartheid government of South Africa), a decision was made to appoint only designated groups (that is, black, Indian, Coloured and white female applicants, in that order of preference) to vacant positions to ensure that the staff component reflects the demographics of the area (the Vaal Triangle). Consequently, the staff component changed from predominantly white to demographically representative, and the management of the institution was also transformed. As a result of these fast-paced and radical interventions, as well as the demographics of the area, most of the indigenous language-speaking employees at the institution are black males and females.

Bearing in mind the impact of the apartheid legacy, especially concerning job reservation and promotion for selective groups (predominantly white, Afrikaans-speaking males), those with less years' experience (previously disadvantaged groups) might be more vigorously committed and engaged as a result of their joy at finding a job and the increased possibility of promotion. During the past eight years, the official language at the institution was also changed from Afrikaans to English. White, Afrikaans-speaking employees (who reflected significantly lower levels of vigour), in contrast with their black colleagues who received their education predominantly in English in the black schools of the apartheid government, had to adjust to communicating in English in order to educate second language-speaking students (whose first language is one of the indigenous languages). Furthermore, they have been subjected to radical changes with regard to the culture of their clients (the students), as well as their co-workers and the management of the institution. These factors might have contributed to lower levels of engagement.

Vigour is also significantly higher among employees with 0–5 years' experience (31.09% of the population), in comparison with those with more than ten years' experience at the institution (33.52% of the population). Even though no relevant research with regard to years of service and its relationship to engagement could be found in the literature, it might be linked to burnout research which indicates that older, more experience, single workers who experience a high workload are significantly more at risk of burnout than younger, less experienced, married workers who experience a low workload (Zijlstra & De Vries 2001). Bearing in mind that engagement represents the positive antithesis of burnout (Schaufeli, Salanova et al. 2002), it can be expected that employees with less years' experience at an institution might still be more vigorously committed to and engaged in their work than those with longer years of service.

The administrative staff component (52.96% of the population) also shows significantly higher levels of vigour than the academic staff component (47.04% of the population). This might be attributed to the fact that employees in administrative positions are not affected as much as academic staff by the recent radical changes in higher education and increased psychological stress that have become synonymous with working in academia (Kinman & Jones 2003; Tytherleigh 2003). In view of these findings, it might be explained that administrative employees showed significantly higher levels of vigour than academics, possibly because their job content may be more stable and under control and not constantly changing. Another intra-institutional factor that might contribute to this finding is the fact that transformation of the administrative staff component was more drastic and accelerated than that of the academic staff component. As a result, most of the administrative employees are black with less than five years' experience at the institution. The same dynamics as discussed under the impact of language and years' experience are therefore relevant. The total transformation of the top management of the institution also has a secondary impact on the governance, culture and climate of the organisation.

For the black administrative staff component with less than five years' experience, this might have been an invigorating and challenging experience resulting in higher levels of engagement. In contrast, adjusting to and dealing with the realities of these changes in a relatively short period of time might have resulted in reduced levels of the vigour dimension of engagement, especially among Afrikaans-speaking, academic employees with more than ten years' experience at the institution. The fact that the loss of vigour is found in between a third and a half of the population certainly requires serious organisational consideration, as well as possible interventions in the interests of employee wellness in general.

In conclusion, the results of this study could serve as a standard for measuring engagement levels of employees at higher education institutions. The three-factor structure of the UWES is largely confirmed, with suitable internal consistency of its subscales of vigour, dedication and absorption. The results further show that the UWES is a suitable instrument for measuring engagement among employees at higher education institutions in South Africa, and further research is possible along similar lines. The lowered level of vigour and dedication that was observed among the Afrikaans language group, academic appointees, and those with ten years' experience or more at the institution is a warning sign that certainly justifies further research, especially in institutions that are marked by radical transformation over a short period of time.

The size of the sample and specifically the distribution of language groups and the sampling method were limitations in this study. Future studies could benefit greatly by utilising a randomly stratified sample with the proportionate inclusion of all language or race groups in the sample. Future studies conducted in this manner would confirm whether differences in engagement levels as measured by the UWES indeed exist for the different language groups of employees and those with different years' experience and different job categories at higher education institutions in South Africa, especially at institutions that are undergoing rapid and drastic transformation. The use of a cross-sectional study design also represents a limitation (namely, that of the ability to test causal assumptions regarding the engagement syndrome). Longitudinal data would allow for forming a better understanding of the true nature of work engagement.

Recommendations

According to the results in this study, the use of the UWES is recommended to assess the engagement of employees at a higher education institution in South Africa. Interventions to address the lower work engagement (and specifically vigour) of Afrikaans speakers, those with more experience and academic staff should be planned and implemented. However, before interventions can be planned, it is necessary to investigate why the vigour levels of these groups are lower than those of other groups. As a result of the effects of organisational transformation, these groups may perceive that they lack job resources, including opportunities for growth and advancement, as well as resources to support them to do their work properly (such as good relationships with managers and colleagues and role clarity).

Future research could focus on work engagement in other higher education institutions in South Africa to verify the current findings. Furthermore, although the UWES was found to be reliable and valid for this sample, other occupational settings should also be investigated in a similar manner. It is also important to determine norm levels for other occupations in South Africa. Future studies should use large samples and adequate statistical techniques. In the quest to make the UWES more user-friendly with regard to comprehensibility by different language groups, some of the items may need to be adjusted. The possibility of translating the UWES to other South African languages should also be considered.

In order to fully understand the effect of different biographical characteristics on engagement, especially in institutions undergoing radical transformation at different levels simultaneously, it is recommended that future studies in higher education institutions in South Africa be expanded to measure the secondary impact that the erosion of engagement may have on affected employees, students (that is, clients) and co-workers. Valuable scientific contributions may also be made regarding measures to redress engagement levels as reflected by vigour (high levels of energy, mental resilience, enhanced individual performance, persistence and commitment, even in the face of difficulties) and dedication (deriving a sense of significance from one's work by feeling enthusiastic, inspired, challenged and proud of one's job) among employees, especially in institutions undergoing rapid and drastic transformation. The impact of engagement on the psychological contract and measures to enhance engagement and trust are issues that justify further investigation and need to be addressed if employee wellness is ranked as a priority in an organisation.

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Bridging the gap between public relations and investor relations: a survey among management students

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In today's competitive and challenging South African organisational environment, investor relations (IR) is delegated to either the accounting or the corporate communication (Public Relations) department. Do accountants have the necessary communication skills, however? Conversely, few communication practitioners have a working knowledge of accounting. This indicates a definite gap in the market place for IR practitioners with an academic background in both these fields. The main objectives of this study were to understand the theoretical definitions of public relations (PR), financial communication, accounting and IR; to determine the perceptions of accounting and communication students regarding whose responsibility IR is; and to determine these students' opinions as to whether IR practitioners should have both accounting and communication knowledge. The study was a quantitative, formal, descriptive study conducted under field conditions. A self-administered questionnaire was distributed among accounting sciences and communication management students to determine the differences in their opinions regarding whose responsibility IR should be and what knowledge and skills an IR practitioner should have. Using a k-sample chi-square test, it was determined that there was a significant difference in the perceptions of students regarding whose responsibility IR is. A one-way ANOVA test indicated that students' opinions do not differ significantly on the need for IR practitioners to have knowledge of both Accounting Sciences and Communication Management.

Key words: investor relations, financial communication, public relations, corporate communication, accounting

Introduction

Investor relations (IR) in the organisation of today is generally either left to the accounting department or to the corporate communication department. The first problem with this approach is that many accountants do not have public relations (PR) or communication knowledge; likewise, few communication practitioners have a financial background. Incumbents in both positions therefore lack the necessary knowledge and skills. The second problem is that this situation leads to confusion and misunderstanding as to whose responsibility financial communication is. Is IR an accounting function or a communication function? Students preparing themselves for future occupations in both these fields are equally unsure. Most accounting sciences students do not understand why they should study communication; likewise, communication management students do not always see the value of studying accounting, or at least financial management.

Results of empirical studies conducted during the past 15 years in the UK, Europe and the USA (McGrath 1974; Marston 1996; Marston & Straker 2001; Petersen & Martin 1996) indicate that the accounting function dominates financial communication. It is also important to assess the situation in South Africa. Schoonraad (2003) undertook exploratory survey research to establish how the 300 largest South African companies listed on the Johannesburg Securities Exchange (JSE) ap-

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proached the management of financial communication. The respondents were chief executive officers (CEOs), managing directors (MDs), financial directors, PR/corporate communication managers and IR managers. Further to this study, and in order to make a contribution to the South African body of knowledge, it is necessary to establish what the opinions of future company executives are on this issue. The current study was the first in South Africa to investigate the perceptions of accounting and communication students regarding whose responsibility IR is, and whether IR practitioners should have a knowledge of accounting and communication.

The purpose of the research was to establish whether, in the opinion of management students, both accounting and communication knowledge are necessary for IR practitioners. The study was undertaken within the stakeholder theory and stakeholder management approach (Carroll 1996; Freeman 1984; Freeman & Reed 1983; Grunig & Hunt 1984; Havenga 1997; Mitchell, Agle & Wood 1997; Post, Preston & Sachs 2002; Woodward, Edwards & Birkin 1996) and in the light of the 2002 King Report on Corporate Governance in South Africa (King Committee on Corporate Governance 2002: 98). It could be argued that practitioners should ideally have knowledge as well as skills in both these areas. The question is how often this is the case. To address this issue, organisations that seek excellence in the future could integrate the finance and communication functions. This study also aimed to establish whether an organisation's IR function should be consolidated into a single department that manages relationships with potential and existing investors and other stakeholders alike.

Problem statement

IR has a direct effect on an organisation's bottom line, and in past years, debate has raged over whose job it is to manage IR. The problem is that uncertainty exits about whether IR is an accounting or a communication function. According to Arfin (1994: 4), the financial PR function has developed over the past two decades from a generalised communication activity to a range of more specifically targeted services. Despite the evolution of IR as a function, there is also still a lack of integration between the accounting and communication departments because of a lack of knowledge of the respective fields.

This leads to the problem statement: Too little emphasis is placed on accounting and communication as an integrated function for successful IR in the training of university students.

Research objectives

The objectives of the study were:

- To determine accounting sciences, communication management and marketing management students' perceptions regarding whose responsibility IR is (that is, whether it is an accounting function or a communication function)
- To determine accounting sciences, communication management and marketing management students' opinions as to whether IR practitioners should have knowledge of both accounting sciences and communication management.

In order to understand the relevant theoretical definitions, the first part of the article reviews current IR literature. An overview of the theoretical underpinnings of PR is given, after which financial communication is discussed from both a PR and an accounting (financial) perspective. The importance, advantages and disadvantages of integrating PR and IR (that is the communication and the accounting function) are explored, and Schoonraad's (2003) conceptual model for an inclusive and integrated approach is explained. The two empirical research objectives are met through a survey using self-administered questionnaires that were distributed to the target population. The methodology followed is briefly explained, followed by the main findings. Finally, recommendations are made to managers on how to achieve excellence in IR, and further research guidelines on this topic are suggested.

Understanding public relations

Definitions of public relations

According to Rensburg & Cant (2003: 36), PR is the management through communication of perceptions and strategic relationships between an organisation and its internal and external stakeholders. For the purposes of this study, however, the definition of Lubbe & Puth (1994: 6) is the most appropriate, as it focuses on the essence of PR, namely, the relationships between organisations and their publics. They state that PR is "the management function that identifies, establishes and maintains mutually beneficial relationships between the organisation and the various publics on whom its success or failure depends''.

Evolution of public relations

According to Newsom, Turk & Kruckeberg (2000: 31), PR probably has no single 'founder', but many PR practitioners in the US regard Ivy Lee as the first practitioner of modern-style PR. Cutlip, Center & Broom (1994: 91) note that the tools and techniques of PR have long been an important part of political weaponry. Sustained campaigns to move and manipulate public opinion date back to the revolutionary war. Rensburg & Cant (2003: 40) point out that PR has evolved over many years to become a discipline, but only recently – in the last century – has it received more prominence in the corporate world. PR is thus an evolving concept, and its status is continually improving in organisations all over the globe.

The publics of public relations

PR publics can be classified into several overlapping categories. Rensburg & Cant (2003: 50) indicate the following, and add that no organisation can afford to become complacent in dealing with these changing publics:

- Internal and external: Internal publics are inside the organisation (for example, employees, managers). External publics are those not directly connected with the organisations (for example, the media, government).
- Primary, secondary and marginal: Primary publics are those that can make a major contribution towards an organisation's efforts, or hinder them. Secondary publics are less important, and marginal publics are the least important of all.
- Traditional and future: Employees and current customers are traditional publics, while students and potential customers are future ones.
- Proponents, opponents and the uncommitted: An institution must deal differently with those that support it and those that oppose it. For supporters, communication that reinforces beliefs may be in order, but changing the opinion of sceptics calls for strong, persuasive communication.

Further expanding on this, Grunig & Grunig (1992: 170) indicate how any of the first three categories mentioned can become latent, aware and active:

- When an organisation's consequences create a problem that the public are not aware of, they are latent publics (that is, 'a potential PR problem waiting to happen').
- When the public recognise that a problem exists, they become aware publics.
- When the public communicate about the problem and decide to do something about it, they become active publics.

Since PR/corporate communication practitioners do not have the resources to communicate to all publics, they must identify which publics generate the most important and/or serious consequences for the organisation.

Understanding financial communication

In an attempt to understand financial communication, this concept is first discussed from a PR perspective (financial PR) and then from an accounting perspective.

Financial communication: a public relations perspective

The role of public relations in the financial sector

PR is a staff function and essentially acts as a support for all other management functions in the organisation. According to Steyn & Puth (2000: 10), PR is the only function in an organisation, apart from management, that interacts with all the publics of the organisation either directly (by direct communication with stakeholders), or indirectly (by assisting the other organisational functions). For this reason, the role of PR should be clarified in the organisational dynamics to prevent it from overlapping with other functions, causing confusion, ineffectiveness and unnecessary battles over organisational domains, namely turf wars.

Most functions of the organisation interact primarily with a specific public, for example, the marketing function communicates with customers, and the purchasing function communicates with suppliers. In the same way, financial PR traditionally communicated with shareholders and other 'financial' stakeholders.

Definition of financial public relations

Buchner (1994: 231) defines financial PR as "the science of communicating with specific target audiences, respectively or generally, about a company's trading activities and conditions, financial status, strategy, and values, on a consistent basis, so that they may accurately evaluate their investment''. Financial PR falls under the umbrella of PR, but it becomes unique because of the target publics and consequently, the tools used, the media staff it interacts with, the timing of the message and the message itself.

Elements of uniqueness of financial public relations

Buchner (1994: 232) further states that what is needed to set financial PR on the road to effective communication is an understanding of the following elements, which make it unique:

- The target publics: The target audience have specific financial information needs. (See the later discussion of the accounting perspective of financial communication.)
- The tools used: Although some common tools are used in PR and financial PR, there are certain tools that are unique to financial PR, including annual reports, interim reports and preliminary profit statements, annual and general meetings, opportunities to address specific interest groups, employee reports and circulars to shareholders.
- The media staff: Staff members in media organisations connected to financial PR usually do not deal with any other topic. They are usually specifically assigned to this task, because of the necessary knowledge and skills required for financial PR.
- The timing of the communication: With financial communication, the timing of the release of the communication is usually governed by statute and regulations. This is different from PR communication. When PR communication is sent out, it is usually to the advantage of the company, whereas in the case of financial communication, companies are obliged to communicate irrespective of whether the timing favours them or not.
- The message: What makes the message unique in financial PR is that the message may not always be in the best interest of the company.

Evolution of financial public relations

According to Buchner (1994), since early history, people have traded either to obtain goods and services or for financial gain. Whether such initiatives were successful or not depended on the relationships cultivated with customers, suppliers and other parties. Financial PR has developed from this generalised communication activity to a range of more specifically targeted services during the past two decades. Arfin (1994: 6) states that the period of mergers and acquisitions, hostile bids and takeovers during the 1980s in the USA and UK put management under pressure. This led to in-depth, strategic communication with investors. The problem was that former journalists, who held a low status in the company hierarchy, dominated financial PR during this period. These so-called PR/ corporate communication practitioners often had little understanding of the financial market.

Haywood (1991: 147) notes that PR advisors in major corporations found that financial relations for their companies had become an important part of their work in the early 1990s. PR practitioners working in the financial area therefore needed to be close to corporate policy-makers, and financial communicators started using the phrase 'managing the interface' to describe the flow between the company, its investors and those who influence the investors, such as the media (Arfin 1994: 7). Unfortunately, there are not many practitioners who can offer an innovative and successful financial communication or financial PR service. The reasons include the lack of a thorough understanding of the basic financial elements.

Financial communication: an accounting perspective

What is accounting?

Accounting theory, like most other academic disciplines, has evolved over time. In an attempt to describe this process, Davis, Menon & Morgan (1982: 309) present four distinct 'images' of accounting, namely, accounting as a historical record; a descriptor of current economic reality; an information system; and a commodity. Belkaoui & Jones (1996: 66) add two more: accounting as ideology and accounting as a language.

Accounting as an information system is important for the present discussion, as it addresses the needs or wants of the specific public that financial communication targets, and it also explains the term 'accountability' in accounting.

Laughlin & Lowe (1990: 18) point out that an accounting information system should be designed to accommodate the decision needs of its users. Gouws (1997: 62–63) identifies seven such needs, (which are also central to an understanding of accounting): the need to record in order to report; the need to audit in order to trust; the need to analyse in order to assimilate; the need to relate in order to synthesise; the need to compare in order to discriminate; the need to decide in order to allocate resources; and the need to respond in order to create change.

Related to the informational need of accounting is the accountability of accounting. Stanton (1997: 684–685) points out that accountability in this sense refers to the interests of individuals, and more specifically, the right to receive information from a reporting entity. This right can be a legal or a moral right. The shareholders of a company can usually claim legal rights to be informed, whereas other stakeholders can only claim a moral right to information from the same company. Shareholders would use accounting information for assessing management performance as well as making decisions, hence the decision needs already discussed. Wolk, Tearny & Dodd (2001: 3) define this as financial accounting, while Imam (2000: 133) declares that financial reporting should provide information that is useful for stakeholders to make rational investment, credit and other related decisions.

Shifting expectations lead to expansions in the accounting profession

As a result of the dramatic shift in expectations that has occurred in the accounting profession in the last twenty years, the profession has expanded its role not only within organisations, but also within society (Williams 1993: 76). This expansion has resulted in accounting services firstly becoming broader in scope, which requires an extremely high level of professional competence from accountants; and secondly, various types of decisions and decision-makers require, and are provided with, accounting services (including information) that need to be more creative and innovative than traditional financial reporting processes (Bedford & Shenkir 1987: 90; Schoonraad 2003: 58). The expanding role of the accountant has obviously impacted on the training content and methodology of the profession.

Changes in accounting education

In 1984, the executive committee of the American Accounting Association (AAA) appointed a study committee to investigate and report on the future structure, content and scope of accounting education. The committee realised that accounting education had not made significant efforts to improve its teaching methods over the previous sixty years. Despite complaints that accounting graduates did not know how to communicate, did not reason logically, were deficient in interpersonal skills, and could not think creatively and responsibly, university accounting education persisted in teaching the content of textbooks rather than developing students' capabilities and skills (Bedford & Shenkir 1987: 86). In general, the committee concluded that:

- The expanded role of the accounting profession had resulted in a new era, with new functions within organisations and within society, and with new expectations of those who enter it.
- Most professional accounting education programmes were inadequate to meet the needs of this expanding profession.
- Accounting education had be reassessed and redirected to meet the needs of the growing profession and of the future accounting professional.

The report emphasised that accounting educators should treat accounting as an information development and distribution function, and, accordingly, university education for future accountants should focus on the central theme of information identification, measurement, analysis and the communication of this information. In the late 1980s, Bedford & Shenkir (1987: 84–91) contended that the increased demand for higher quality information was becoming one of the most significant characteristics of the society then evolving, and further argued that it was equally evident that the accounting profession was ideally situated to provide that information.

Understanding investor relations as a unique concept

Financial public relations or investor relations?

Although the terms 'financial PR' and 'investor relations' are both used in PR textbooks, more recent publications favour the latter. Schoonraad (2003: 17) points out that it is important to note that most definitions of both financial PR and IR only refer to communication with the financial community. For example, Baskin, Aronoff & Lattimore (1997: 317) define financial PR as the building of positive relationships with the financial community. Cutlip, Center & Broom (1994: 101) provide a very similar definition, but use the terms 'investor relations' and 'financial PR' interchangeably. Andrew (1990: 22) describes financial PR as communication with key groups such as financial institutions, investment analysts, shareholders and the financial press. Marston (1996: 477) defines IR as the link between a company and the financial community. Schoonraad (2003: 17) therefore agrees with Marcus & Wallace (1997: 2, 313) that the reason for this might be a growing recognition internationally that financial communication is not merely PR directed at the financial community and that it is indeed a highly specialised and interdisciplinary field, but she also warns that "what exactly is meant by the term is [still] subject to debate, and mostly depends on who uses it". Schoonraad (2003: 17) points out that there are still mainly two schools of thought regarding IR: one still regards it as a PR function, and the other as a separate and distinct discipline, the difference being that it now often falls under the finance director's department.

Davis (1995: 73) lists the following activities, which have resulted in the growth of IR as a separate profession since the mid-1990s:

- The financial press globally has increased in both scope and influence, with a resulting increase in the numbers of newspapers and magazines that report on business and also an increasing amount of space devoted to financial news within the wider mass media.
- Deregulation, globalisation and the impact of electronic trading and more sophisticated information systems result in information being distributed to a wider audience more promptly and equitably.
- Increasing numbers of rules have been introduced governing the disclosure of financial information, with a resulting emphasis on the growing importance of IR
- Marston (1996: 479) adds: "Increasing sophistication of the world's capital markets, which results in increasingly sophisticated information being needed to facilitate investment decisions."

The publics of investor relations

According to Jones, Erickson & Hargittay (2001: 2), investors nowadays need more information on companies than was traditionally the case. They want to know about an organisation's customers, partners and employees. Jones et al. therefore refer to the publics of IR as audiences that can be divided into customers, partners, employees and investors.

Whose responsibility should investor relations be?

Schoonraad (2003: 27) has found that previous research concerning the responsibility for IR has concentrated mainly on two areas: firstly, which department takes charge of the execution of IR; and secondly, the position to which the department responsible for the execution of IR reports.

According to White & Mazur (1996: 219), some companies place IR in the financial director's department, while others place it in the communication, PR or public affairs department. (The former authors, for example, regard IR as the most challenging area of corporate communication in the new millennium.) The question to ask is whether IR forms part of the accounting function or of the communication function. This leads to the first hypothesis:

> H1: There is a significant difference in the perceptions of accounting sciences, communication management and marketing management students regarding whose responsibility investor relations is.

Knowledge and skills required for investor relations

Baskin et al. (1997: 324) conclude that IR is a highly specialised field, which requires knowledge of corporate finance, law, economics, PR as well as marketing communication skills. In fact, Marcus & Wallace (1997: 311, 316) state that IR is no longer a purview of PR, as a PR practitioner with no financial background is not qualified for the IR function. They also note that a financial executive with no communication training will not be qualified either. Dilenschneider (2000: 33) agrees and states that, because IR entails communication, it is still considered as part of a corporation's overall PR. It is evident that any IR specialist needs both accounting as well as communication knowledge and skills within a broader understanding of corporate structure, corporate activities and organisational dynamics.

This leads to the second hypothesis:

> H2: There is a significant difference in the opinions of accounting sciences, communication management and marketing management students as to whether IR practitioners should have knowledge of both accounting sciences and communication management.

The importance of integrating public relations and investor relations

The question that should be asked is why companies need to integrate their communication function with their investor relation function. Johnson & Neilson (1990: 26) warn that many senior managers remain unaware of the pitfalls lying in wait for a company that does not coordinate these functions. For example, the most clever community relations project or product publicity programme has little value if the corporation cannot attain the capital it needs for survival because of a poor corporate image on the street. Haywood (1991: 150) adds to this by saying that professional investment specialists are still influenced by attitudes towards organisations, and effective external corporate communication might enable a company's share to stand out from a thousand others. The problem is further compounded by the fact that most investors today are professional people. Before they make an investment, they try to learn as much as possible about a company, and investors will be discouraged from investing in a company if IR speaks one way and PR sends out a different message. There should be one message, and companies should be consistent in this regard to ensure loyalty and trust from both customers (the sell side) and investors (the buy side) (see Jones, Erickson & Hargittay 2001: 2).

The conclusion drawn from this discussion could be that PR is an essential part of IR, and that communication is one of the most important aspects of successful companies. Stock (2002: 23) presents findings from a recent shareholder.com webcast in the journal *Investor Relations Business*. Panellists from this study said that while PR and IR do not always see eye-to-eye, direct marketing conditions combined with investors' lack of faith in the credibility of corporate communication is forcing them to create a unified message. Moreover, JoAnn Killeen, president of the PR Society of America, is quoted in Stock (2002: 4) as saying: "I know that in the past IR has been on the one side of the hall and PR is traditionally on the other side. But now we all realise that it's in the best interest of the company to make sure we come together and understand the significance of what we are trying to do."

Furthermore, in an earlier article also published in *Investor Relations Business* (Galaza 2002), it is argued that with so many high profile scandals rocking the market, PR and IR will have to find a way to pull their companies out of the firing line, although differences in opinion as to who should take the lead are slowing the process down. For example, the Enron scandal was a shock to many, but widespread panic could have been averted if all the departments had acted in unison, especially the communication and accounting departments. The article, authored by the Vice-President of Aston Partners LLC, Bryan Galaza, states: "Despite the need to work together there is a fair amount of mutual wariness. Some IRO's view PRO's as either unfamiliar or uninterested in the role of IR. Conversely PR officers see IRO's as speaking a different language and serving a different role." Another problem is 'the balance of power' – who should be in control and who should lead. Despite these differences in PR and IR, there is an essential need for the two to consolidate. Galaza (2002: 1–2) says: "The goal of both disciplines should be to benefit the overall company. While IR might have a more financial focus and PR a marketing and product focus, they all strive to gain market share in their respective area. Ultimately the bottom-line for both PR and IR is about communicating well with their respective audiences – that is why companies integrate communications."

Advantages and disadvantages of integrating public relations and investor relations

Advantages

By integrating PR and IR, many advantages can be observed. Johnson & Neilson (1990: 26) mention the following:

- If the communication programme is effective, it will support the IR effort.
- If relationships with investors are good, they will support the communication efforts of the organisation.
- If information being sent out by an organisation is consistent from both IR and PR, this can support the overall image of the organisation.
- A good public image emanating from strong PR efforts adds value to a company's stock (in other words, IR related) by promoting corporate awareness and increasing shareholder confidence.
- By integrating PR and IR, the role of each will be clarified, thereby minimising confusion and ineffectiveness regarding the overlapping of roles.

Disadvantages

The biggest disadvantages mentioned by Johnson & Neilson (1990: 27) relate to overlapping of functions in large organisations and lack in knowledge and skills in small companies:

- In larger companies, where there are numerous professionals handling various communication functions and a separate IR department exists, turf wars over who should be handling which responsibility occur.
- In smaller companies, where a single communication officer is usually responsible for all PR activities, the challenge is more difficult: How can investor and other PR programmes/plans be simultaneously managed by a small staff when IR and other functions are becoming increasingly demanding?

A conceptual model for an inclusive and integrated approach to financial communication

How can one bridge the gap between PR and IR? According to Schoonraad (2003: 116, 118), a lack of integration has been identified as one of the shortcomings of the current IR approach to financial communication: investor relations traditionally concentrates only on communicating with the financial community. As already stated, in most cases, the financial director (an accountant) assumes final responsibility for the IR function.

Using Mitroff, Betz, Pondy & Sagasti's systems model of problem solving (1974: 46–58), Schoonraad (2003) developed a conceptual model for integrating some of the functions in financial communication. Schoonraad (2003: 116–117) advises that the first step to be taken is to identify the stakeholders. To ensure an inclusive approach to financial communication, PR should also be actively involved in identifying all potential stakeholders, beyond the traditional and obvious financial stakeholders, as was the case in the past. However, she proposes that the distinction between active (strategic) and passive (less strategic) publics (see a previous section on the publics of PR) should not be made by PR alone. The expertise of a cross-functional team is needed. The second step (represented by the rounded arrows in Figure 1) is to determine the financial information needs of the relevant stakeholders. "This step is vital to ensure that the financial communication is a dynamic two-way process and not merely a one-way financial disclosure exercise" Schoonraad (2003: 118). The information needs of the stakeholders influence the design of the accounting information system. Next, external intermediaries will have to interpret the information and advise stakeholders accordingly. Lastly, the cross-functional team will have to monitor the company's relationships with the various stakeholders. This leads to a model of an inclusive approach to IR and PR.

In Figure 1, financial communication is portrayed as an interface between PR, IR and accounting. It may seem as if the financial communication process is conceptualised as being linear, with different managers and functions assuming responsibility for different stages. This is not the intention of the conceptual model, however. "The model rather suggests that the entire financial communication process should be managed and organised in an interdisciplinary or cross-functional manner. In other words, the Public Relations Manager, Investor Relations Manager (as specialist), Financial Director and their respective departments should be involved in all the steps" (Schoonraad 2003: 119). Figure 2 indicates how this process should be managed and organised in an integrated way.

It should be borne in mind that this conceptual model is restricted to Circles I and II (the identification of a reality problem situation and the development of a conceptual model) of the Mitroff et al. (1974: 51) model. To complete the process of scientific problem-solving, the activities in the remaining two circles of the complete model (Circle III, the solution of the a reality problem, and Circle IV, the formulation of a scientific model) should also be included. The heuristic value of Schoonraad's (2003) model is of importance here, as it can lead to further investigation.

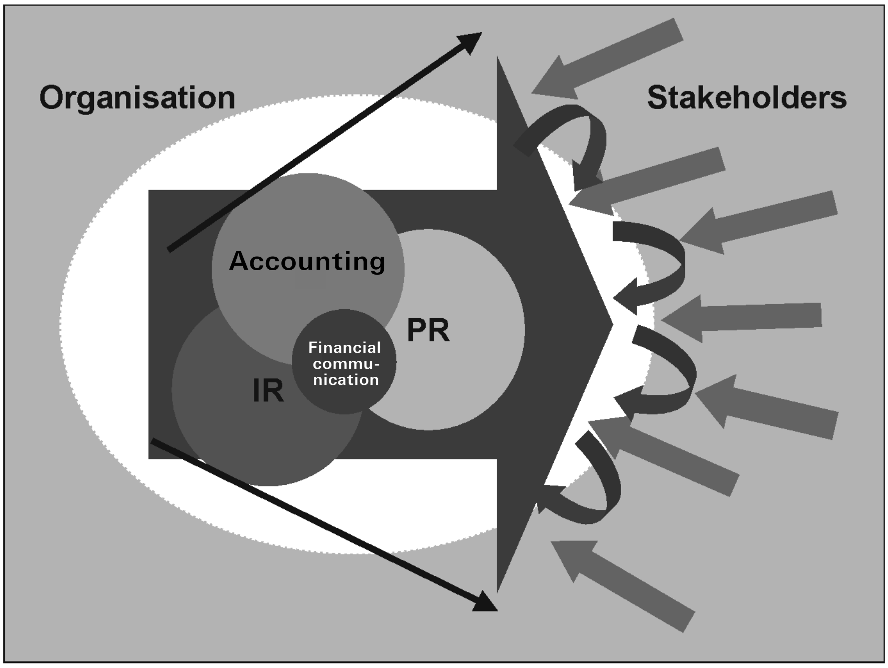
Methodology

Research design

This study was a quantitative, formal, descriptive, cross-sectional study, following an *ex post facto* design by testing hypotheses through self-administered questionnaires under field conditions.

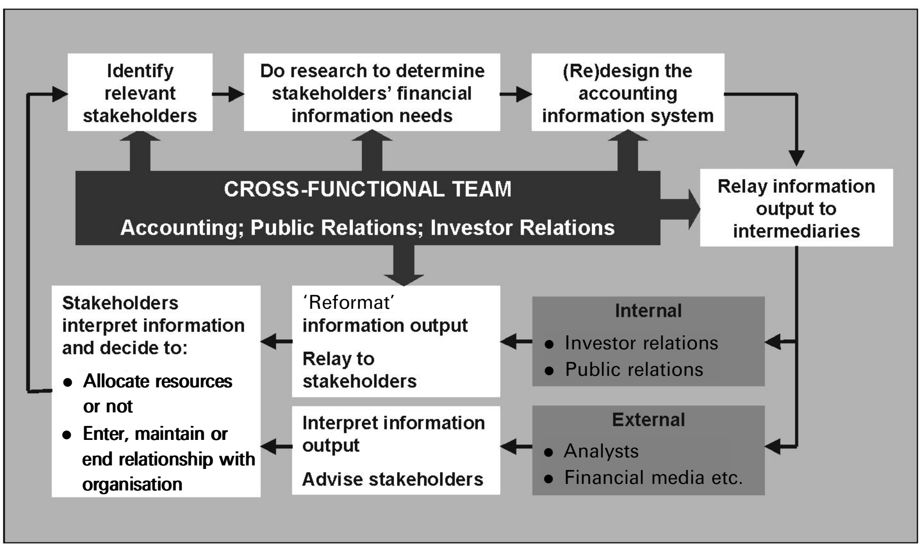
Sampling

Students in management sciences were the unit of analysis. The sampling frame consisted of students currently enrolled at the University of Pretoria. Students registered for the following three degrees were targeted: BCom Accounting Sciences, BCom Communication Management and BCom Marketing



Source: Schoonraad (2003: 118)

Figure 1: An inclusive approach to financial communication



Source: Schoonraad (2003: 120)

Figure 2: A model for the integrated management and organisation of financial communication

Management. It should be noted that the number of students that specialise in communication management is small in relation to the other two groups. However, as all students that major in Marketing Management also take Communication Management up to final year level, it was deemed in order to include BCom Marketing Management students as it can be assumed that they have the same level of subject expertise as BCom Communication Management students and, moreover, the literature reviewed made mention of marketing skills as well.

Students from four year groups (first year to honours) were approached. A convenience-sampling basis was used by handing questionnaires out to respondents who attended lectures.

Data collection

A self-administered questionnaire consisting of 11 questions (both close-ended and open-ended) was used as the measuring instrument. Nominal (category) questions, four questions with 7-point Likert scales and three open-ended questions to test students' definition of 'investor relations' among other concepts were included.

The self-administered questionnaires were given to students to complete during lectures in August and September 2004. This was considered the best way to reach the target audience, for the following reasons:

- If the students need assistance, the researchers would be present to answer questions.
- Students are more likely to answer the questionnaire under these conditions (compared with being intercepted at random on campus).
- Not all students have access to the Internet, making e-mail surveys impractical.

A total of 279 questionnaires were completed. After entering the data into the SPSS programme, five of the questionnaires were less than 75% completed and were deleted from the data set (Pallant 2001). The remaining 274 questionnaires were used to conduct data analysis to test the hypotheses.

Pre-testing

The draft questionnaire was pre-tested by also using university students as respondents. All respondents came from the first year Communication Management class. Five were chosen from among the English BCom Accounting Sciences students and the remaining five from among the Afrikaans students (not all these respondents were BCom Accounting Sciences students).

Pre-testing was conducted to check that questions were understood correctly; that the layout and the so-called 'skip questions' made sense; that all response options had been included; that there were no redundant questions; and to check the length of time needed to complete the questionnaire. The questionnaire was modified to make provision for problems that emerged during pre-testing.

Data analysis

Two types of hypotheses tests were conducted: the one-way ANOVA test (as a parametric test), and the k-sample chi-square test (as a non-parametric test). The SPSS Levene test was used to test for equality of variances.

Special care was taken with the data editing by checking for compliance with screening requirements, 'skip instructions', individual question instructions, completeness, legibility and consistency of answers, comprehensibility of open-questions and sample quotas.

Findings

Descriptive statistics

Profile of respondents

Of the total respondents, 42% were studying Accounting Sciences and 44% had Communication Management as an academic subject up to third year level (of the latter, 30.8% were enrolled for BCom Marketing Management and 13.6% for BCom Communication Management). Ten students did not fall into any of these categories; of these, two were students of Business Management, and two were students of Economics, which means that they were still from the same faculty, namely the Faculty of Economic and Management Sciences. The balance were from the Faculty of Humanities.

The students were split into their separate year groups to ensure effective analysis and comparison. The largest component was second year students (34.9%), then first years (33.2%), and then third years (22.4%). Only 2% were honours students, and 7.5% of the respondents did not indicate their year of study.

Definition of investor relations

Respondents were required to provide their own definition of IR.

A definition was deemed 'correct' if it mentioned that IR was the building and/or maintaining of relationships with investors and also included mention of communicating with investors. A definition was deemed 'somewhat correct' if it lacked one of these key elements, and was deemed 'incorrect' if it mentioned none of the key elements. The results show that the majority of the respondents (43.7%) provided a correct definition of IR, indicating that awareness and understanding of IR is average.

Table 1 shows a cross-tabulation between the degrees studied by the respondents and how correct the definition of IR was.

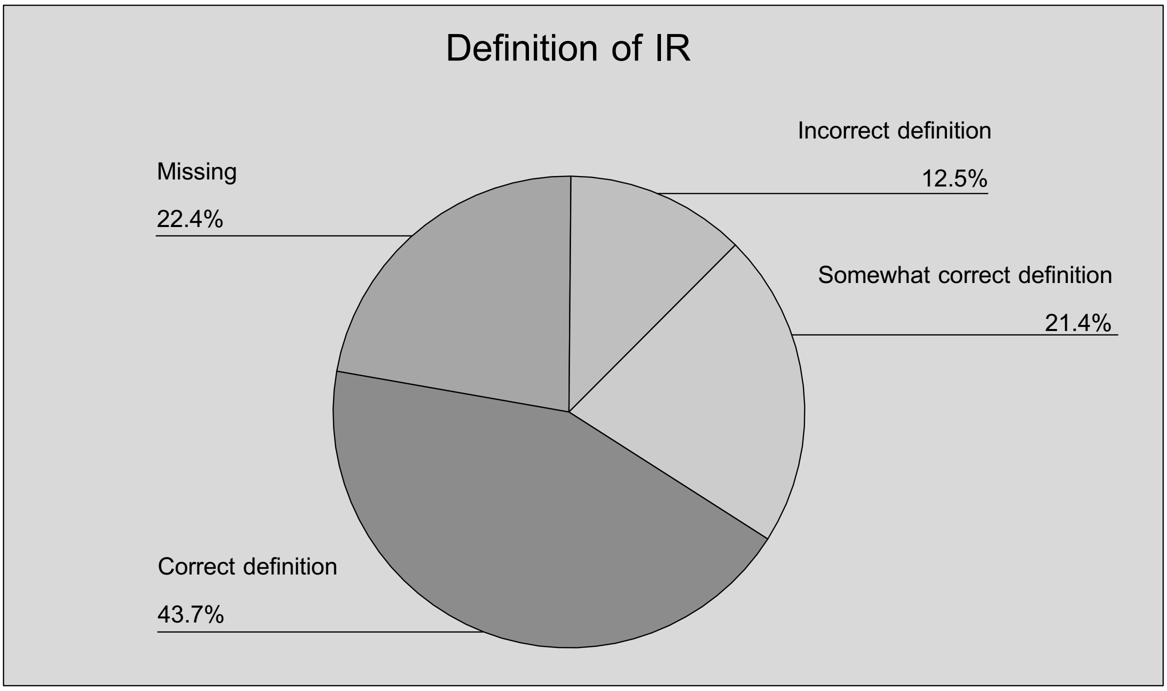


Figure 3: Definition of investor relations

Table 1: Cross-tabulation of definition of investor relations and degree enrolled for (N = 213)

Definition of investor relations				
		Incorrect definition	**Somewhat correct definition**	**Correct definition**
Accounting Sciences	Count	23	27	48
	%	62.2	46.6	40.7
Communication Management	Count	3	10	26
	%	8.1	17.2	22.0
Marketing Management	Count	11	21	44
	%	29.7	36.2	37.3

Importance of communicating with various stakeholders

Respondents had to indicate the importance, on a Likert scale of 1 (not important) to 7 (very important), of communicating with each of the stakeholders listed. The means and standard deviation of this analysis are portrayed in Table 2.

Respondents rated the importance of engaging in IR with the three financial stakeholders – shareholders (6.43), banks (5.99) and financial analysts (5.90) – higher than other stakeholders. The lowest means were for environmental pressure groups (4.73) and local communities (4.70). In the study conducted by Schoonraad (2003), these two stakeholders were also rated the lowest. According to Schoonraad (2003: 180), this might indicate that respondents are not completely sure about the importance of communication with these groups, although awareness of its importance may be increasing as a result of concepts such as corporate governance and corporate social responsibility.

All the variables in Table 2 have a relatively low standard deviation, indicating similarity in respondents' opinions. In the case of a 7-point scale, standard deviation values of 0–1.5 could be considered as relatively low, while values above 1.5 could be considered as relatively high. How-

Table 2: Importance of communicating with various stakeholder groups

	N	Mean	Std. deviation
Banks	273	5.99	1.17
Customers	273	5.87	1.35
Employees	270	5.40	1.48
Pressure groups	271	4.73	1.54
Financial analysts	271	5.90	1.20
Public	273	4.93	1.39
Government	274	5.35	1.39
Shareholders	271	6.43	.90
Community	272	4.70	1.45
Managers	269	5.78	1.24
Media	272	5.23	1.4
Suppliers	274	5.47	1.39
Trade unions	274	5.06	1.62

ever, the variable 'trade unions' had the highest standard deviation (1.62), which could mean that opinions of the respondents may differ to a certain extent.

Reasons for further communication with investors

Respondents had to indicate their agreement or disagreement on the following statement: "After financial statements have been published there is **NO** further need to communicate with investors." This question was used to determine whether respondents felt that the minimum amount of interaction with stakeholders was sufficient in building relationships.

The majority of respondents (82.4%) felt that relationship building included more than just communicating the financial performance of organisations. The next question then asked respondents that disagreed with the statement to explain why they disagreed. A variety of explanations were given, and are shown in Table 3, which also indicates the number of respondents that gave that explanation in order of frequency. The explanations could not be grouped more closely together, because they were deemed too different for similarities to be found.

Figure 4 is a graphical representation of Table 3, showing the number of respondents that indicated each of the reasons suggested for disagreeing with the statement on the need for further communication with investors.

Responsibility for investor relations activities

The next two questions were adapted from the study conducted by Schoonraad (2003) in order to draw a comparison between practitioners' and students' answers as to whose responsibility IR is. Typical IR responsibilities were listed, and respondents were asked in two separate questions to indicate on a 7-point Likert scale the extent to which the financial manager and the PR/corporate communication manager respectively should take responsibility for these aspects (with 1 = 0% responsibility and 7 = 100% responsibility). The same variables were used as in Schoonraad's study, representing different aspects of the IR process.

The means and standard deviations of this analysis are shown in Tables 4 and 5. Table 4 shows the perceptions of respondents regarding the responsibility of the Financial manager. Table 5 shows the perceptions of respondents regarding the responsibility of the PR/corporate communication manager.

When studying the standard deviation values for all the variables of these two questions, it becomes clear that there is some consensus with respect to

Table 3: Reasons for further communication with investors

Explanation no.	Explanation	No. of responses
4	Communication should be an on-going process.	38
1	Investors need to be kept up-to-date, constantly informed, follow-up reports, feedback.	30
5	Maintain relationships, keep investors happy.	25
2	Investors need additional/updated information, need to be made aware of changes in the company.	16
6	Investors need to know the financial position and performance of the organisation, environmental and social position of the organisation.	13
14	Investors may have queries about financial statements.	11
18	Organisation may need to explain and analyse the information contained within financial statements.	11
7	Investors need to have additional information about the organisation.	8
10	Investors need to know of any future projects, plans or investments of the organisation.	8
20	Investors are an important stakeholder group.	8
23	Investors need to understand financial statements.	7
19	Communication is essential.	6
13	Financial statements do not answer all the questions that stakeholders have.	5
15	Investors need to understand and keep up-to-date with their investments.	5
22	Material changes or errors to financial statements must be communicated.	4
27	Investors may wish to verify that the information received is correct.	4
9	Investors could identify areas of concern, communication can dispel uncertainty.	3
17	Investors may wish to know how the organisation puts money back into the community and the environment and the perceptions of employees.	3
12	Investors need to know prevailing and changing economic conditions.	2
3	Communication promotes the good image of the company.	2
16	Investors may lose interest.	2
24	Results of audits should be communicated.	2
28	Investors may want to increase their shareholding or to identify other investment opportunities.	2
8	Investors should be able to view the financial statements before they have been published.	1
21	Investors may wish to know that their money is being put to correct use.	1
25	The market is continuously changing.	1
26	Organisations need to be able to present their work.	1
11	Accountability of organisation to investors.	0

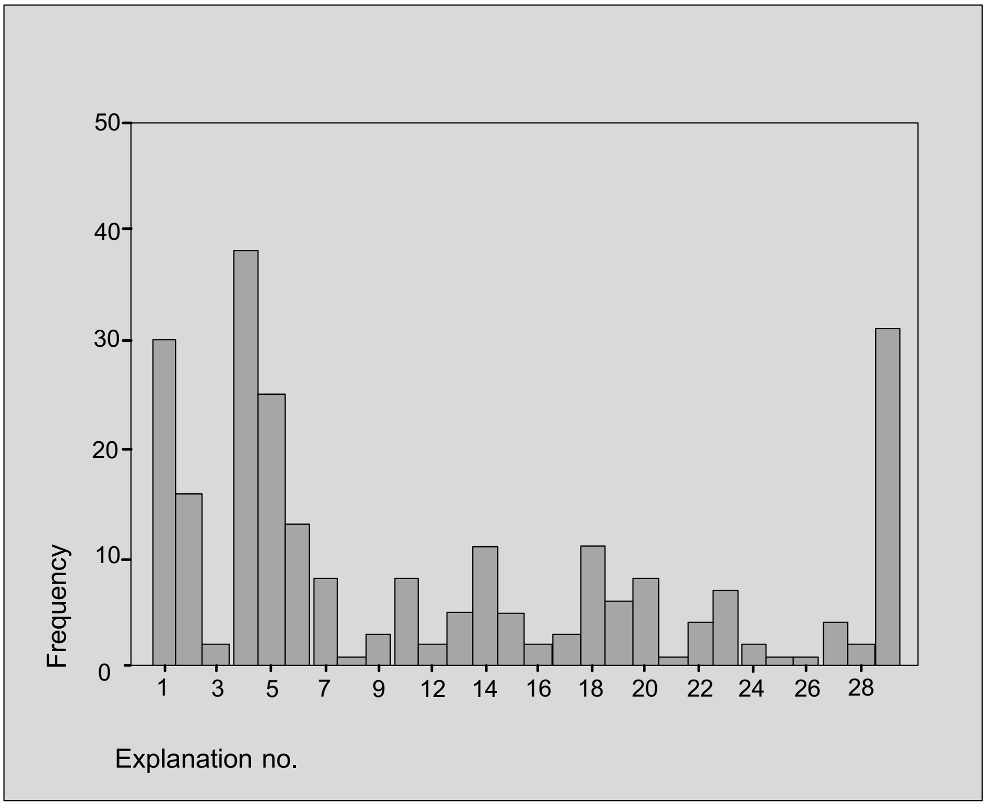


Figure 4: Reasons for disagreeing on no need for further communication

Table 4: Financial manager's responsibilities

Responsibility	N	Mean	Std. deviation
Identify needs of stakeholders	263	5.76	1.26
Formulate strategies	258	5.62	1.42
Formulate messages	258	5.53	1.36
Evaluate campaigns	260	5.37	1.56
Plan campaigns	261	5.21	1.51
Implement campaigns	257	5.16	1.51
Conduct environmental scanning	249	4.90	1.50

Table 5: PR/corporate communication manager's responsibilities

Responsibility	N	Mean	Std. deviation
Implement campaigns	263	5.94	1.31
Conduct environmental scanning	256	5.89	1.33
Plan campaigns	264	5.78	1.27
Evaluate campaigns	263	5.70	1.50
Formulate messages	262	4.61	1.72
Formulate strategies	262	5.47	1.45
Identify needs of stakeholders	265	5.20	1.53

the degree of involvement of the most senior financial manager and the most senior communication manager in the IR process.

These findings closely correlate with the study conducted by Schoonraad (2003). Schoonraad's (2003: 204–205) findings were as follows for the financial manager:

- Formulation of messages (mean = 4.93)
- Research to identify needs of stakeholders (mean = 4.71)
- Formulation of strategy (mean = 4.74).

Schoonraad's (2003: 204–205) findings were as follows for the PR/corporate communication manager:

- Implementing campaigns/programmes (mean = 5.37)
- Planning campaigns/programmes (mean = 5.13)
- Environmental scanning (mean = 5.07).

The top three categories for both this study and Schoonraad's (2003) study are the same. This shows a correlation between the perceptions of university students and the perceptions of organisational managers.

These two questions relate specifically to the second objective of the study, namely, to determine accounting sciences and communication management students' perceptions regarding whose responsibility IR is (that is, whether it is an accounting function or a communication function). From the means depicted in Tables 4 and 5, it would be possible to rank the activities according to their means in order to determine whether they should fall under the accounting function or the communication function. Table 6 shows this ranking process, with a comparison of the corresponding means.

As can be seen, the PR or corporate communication manager should, according to the perceptions of the respondents, be in charge of most of the activities (five out of the seven activities) related to IR. However, two activities (identifying the needs of the stakeholders and the formulation of messages) should be the responsibility of the financial manager.

Accounting and communication knowledge

The last two questions in the questionnaire relate specifically to the last objective of the research, regarding the perceptions of students as to whether IR practitioners should have knowledge of both accounting sciences and communication management. The penultimate question required respondents to rate the importance of practitioners having knowledge of these two academic fields on a 7-point scale (with 1 = unimportant and 7 = very important). The mean and standard deviation are depicted in Table 7.

The majority of the respondents felt that it was important for IR practitioners to have knowledge of both accounting and communication. The last question then asked those respondents who felt that it was unimportant to explain their reasoning. Only three respondents indicated that they felt that

Table 6: Role player in charge of investor relations activities

Aspects of investor relations	Means of financial manager	Means of PR/ corporate communication manager	Roleplayer in charge of aspect of IR
Environmental scanning	4.90	5.89	PR/corporate communication manager
Identify needs of stakeholders	5.76	5.20	Financial manager
Formulation of strategy	5.62	5.47	PR/corporate communication manager
Planning campaigns	5.21	5.78	PR/corporate communication manager
Formulation of messages	5.53	4.61	inancial manager
Implementing campaigns	5.16	5.94	PR/corporate communication manager
Evaluating campaigns	5.37	5.70	PR/corporate communication manager

knowledge of both accounting and communication management was unimportant. Two students indicated, "Relationships are more important than financial knowledge" and one respondent replied, "It also requires other skills (e.g. Human Resources)."

Table 7: Importance of having accounting and communication knowledge

	N	Mean	Std. deviation
Important for IR practitioners to have knowledge of accounting and communication	272	5.96	1.09

Inferential statistics

Hypothesis 1: k-sample chi-square test

H1 (Alternative)

There is a significant difference in the perceptions of accounting sciences, communication management and marketing management students regarding whose responsibility investor relations is.

H0 (Null):

There is no significant difference in the perceptions of accounting sciences, communication management and marketing management students regarding whose responsibility investor relations is.

For the purposes of this study, the level of significance was defined as (alpha) = 0.05. The first hypothesis measured the differences between three groups across the same measures.

Table 8: K-sample chi-square test

	Value	df	Asymp. sig. (2-sided)
Pearson chi-square	13.018	4	.011
Likelihood ratio	13.128	4	.011
Linear-by-linear association	3.139	1	.076
N of valid cases	223		

As can be seen from Table 8, the perceptions of accounting, communication management and marketing management students regarding whose responsibility IR is differ significantly, and the null hypothesis can therefore be rejected. This implies that the perceptions of management students specialising in accounting, communication and marketing on whose responsibility IR is differ significantly.

Hypothesis 2: one-way ANOVA

H2 (Alternative):

There is a significant difference in the opinions of accounting sciences, communication management and marketing management students as to whether investor relations practitioners should have knowledge of both accounting sciences and communication management.

H0 (Null):

There is no significant difference in the opinions of accounting sciences, communication management and marketing management students as to whether investor relations practitioners should have knowledge of both accounting sciences and communication management.

This second hypothesis also measured the differences between the three groups across the same measures. Table 9 provides information about each group.

The Levene test for homogeneity of variances tests whether the variance in scores is the same for each of the three groups. As the significance value is larger than 0.05, the assumption of homogeneity of variance has not been violated. This can be seen in Table 10.

Table 11 presents both between-group and within-group sums of squares, degrees of freedom, mean square, the F value and the significance value. The main value of interest is the column marked 'Sig.'.

As the Sig. value was greater than 0.05, there is no significant difference between the mean scores on the dependent variable for the three groups (there is no need, therefore, to conduct *post hoc* comparison tests). The F value is relatively small, indicating that there is little variability between the groups. As a result, the null hypothesis cannot be rejected, indicating that management students specialising in accounting, communication and marketing are of the opinion that incumbents in IR should have knowledge and skills of accounting and communication.

Table 9: Descriptive statistics

	N	Mean	Std. deviation	Std. error	95% confidence interval for mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Accounting Sciences	123	6.01	1.08	.10	5.82	6.20	2	7
Communication Management	40	5.99	1.18	.19	5.61	6.36	3	7
Marketing Management	91	5.85	1.06	.11	5.62	6.07	4	7
TOTAL	254	5.95	1.09	.07	5.81	6.08	2	7

Table 10: Test of homogeneity of variances

Levene statistic	df1	df2	Sig.
.689	2	251	.503

Table 11: ANOVA test

	Sum of squares	Df	Mean square	F	Sig.
Between groups	1.451	2	.725	.613	.543
Within groups	297.082	251	1.184		
TOTAL	298.532	253			

Limitations

The most important limitation of the current study was that although marketing management students were included in the sample population, this study did not further explore the contribution that the marketing function adds to IR. The second limitation is associated with self-administered surveys which, according to Cooper & Schindler (2003: 341), is that the type and amount of information that can be secured is restricted. Large amounts of information are not obtained, and further research is necessary in order to probe the topic more deeply.

Conclusions and recommendations

Conclusions

The following conclusions can be reached:

- The literature reviewed indicates that IR has indeed become part of the corporate vocabulary, and a large number of students preparing themselves for a position in this field were able to provide a correct definition of the term.
- Students studying towards a degree in accounting sciences or communication and marketing management ranked financial stakeholders (shareholders, banks and financial analysts) as the most important publics in IR. Although this is in line with the traditional view of IR, there is a definite movement toward Schoonraad's (2003) more inclusive approach to IR, as other stakeholders, such as customers, managers, suppliers and employees, were next in order of importance.
- The majority of respondents (83%) indicated that IR implies an ongoing communication process in which the information needs of the relevant publics should be continually addressed in order to maintain healthy relationships between the organisation and its internal and external stakeholders. This result reflects

the decision needs of IR publics as pointed out by Gouws, (1997: 62–63) and Laughlin & Lowe (1990: 18).

- A movement towards an integrated approach to IR (Gazala 2002; Johnson & Neilson 1990; Schoonraad 2003; Stock 2002) could be detected as, although future practitioners in accounting and communication indicted that the PR/corporate communication manager should take responsibility for most of the aspects of IR, they also indicated that the involvement of the financial manager was needed for the remaining aspects to ensure excellence in IR in the future.
- Marcus & Wallace's (1997: 311; 316) view that a PR practitioner with no financial background is not qualified for the IR function in a company, in the same way that a financial executive with no communication training is equally unqualified for the position, is underlined in the opinion of the majority of respondents that an IR practitioner should have knowledge of both accounting sciences and communication management.

Recommendations

Recommendations for future education of investor relations practitioners

Sustained emphasis should be placed on accounting and communication as an integrated function in the training of university students in order to ensure excellence in IR in the future.

Recommendations in terms of managerial action

As an inclusive and integrated approach appears to add value to IR, it is recommended that managers coordinate these organisational functions, ensuring that both the PR and accounting perspective of financial communication work together for the overall benefit of the company. This will ensure that IR entails not only communicating the financial statements, but also building and maintaining mutually beneficial relationships with investors, as well as all the other stakeholders of the organisation.

Recommendations for future research

This study was mainly quantitative in nature. Future research in this field could include a qualitative analysis of why students' perceptions of which department should be in charge of IR differ significantly. Future research could also include the contributions to IR of other organisational functions, such as legal, marketing, economics and financial management.

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Codes of ethics and the information technology employee: the impact of code institutionalisation, awareness, understanding and enforcement

K.I. Bricknell & J.F. Cohen

The ethical behaviour of personnel remains a key management problem in need of attention. Codes of ethics have become important mechanisms for influencing ethical behaviour, yet their efficacy has not been proven. The institutionalisation and enforcement of codes within an organisation are thought to be necessary for ensuring a code's success in influencing employee behaviour. This study examined the problem in the context of the information technology (IT) employee. Specifically, the study examined the effect of code institutionalisation on ethical behaviour through its effects on code awareness and understanding. Using data collected from 186 IT employees in South Africa, results revealed that code understanding by IT employees was a significant determinant of their intention to behave ethically. Code understanding was significantly influenced by degree of code institutionalisation and code awareness. Code enforcement was also found to have a significant influence on an employee's intention to behave ethically. The results have important implications for organisations using, or intending to use, codes of ethics to influence the behaviour of personnel.

Key words: IT employees, ethics, ethical behaviour, codes of ethics, partial least squares

Introduction

The information technology (IT) profession is increasingly realising the importance of promoting ethical behaviour (Oz 2001). Examples of unethical behaviour include fraud, misappropriation of company funds, breaches of confidentiality, falsification of records, unauthorised access to information, destruction or theft of information, violations of privacy and software piracy (Schwartz 2001; Phukan 1994; Oz 2001). Ethical dilemmas may emerge during an IT employee's dealings with customers, competitors, suppliers, organisational peers, supervisors and subordinates or when working with information. The consequences of the unethical behaviour of employees for an organisation can include prosecution, lawsuits, financial loss and negative publicity (Trevino 1986; Vitell & Davis 1990). Consequently, ethics has become an important component of the overall IT management agenda, and it is critical for organisations to focus on employing effective mechanisms to prevent or minimise unethical behaviour among their IT staff. Examples of mechanisms that are thought to influence the IT professional's behaviour include pre-screening of job applicants, ethics training, and familiarising employees with unethical scenarios in the business environment (Loch & Conger 1996). In addition to these, one of the primary mechanisms used by companies to deter unethical behaviour is a code of ethics.

A code of ethics is a set of rules used to guide the moral/ethical decision-making and behaviour of individuals. Because the law sets only minimum standards of behaviour, some form of organisational regulation of ethical behaviour is desirable (Weller 1988; Schwartz 2001). Codes of ethics fulfil this role by providing a statement of organisational values, duties and obligations (Cassell, Johnson & Smith 1997), and establishing the standards of behaviour expected of employees. While the subject of codes of ethics in the IT environment has been gaining increasing attention (Kreie & Cronan 2000; Harrington 1994; Hilton 2000; Udas, Fuerst & Paradice 1996; Vitell & Davis 1990; Pierce & Henry

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1996), much remains to be understood about improving the implementation and administration of these codes.

In the general business literature, while some researchers have shown that the existence of a code significantly influences ethical behaviour, perception and intention (for example, McCabe, Trevino & Butterfield 1996; Pierce & Henry 1996; Rich, Smith & Mihalek 1990; Singhapakdi & Vitell 1990; Weaver & Ferrell 1997), others have found no such relationship (for example, Akaah & Riordan 1989; Allen & Davis 1993; Badaracco & Webb 1995; Brief, Dukerich, Brown & Brett 1996; Callan 1992; Chonko & Hunt 1985; Clark 1998; Cleek & Leonard 1998; Ford, Gray & Landrum 1982; Hunt, Chonko & Wilcox 1984). Thus despite their widespread use, the efficacy of codes of ethics has not been proven. This research, therefore, is driven by the need to identify factors that make codes of ethics effective in influencing the intention of IT employees to behave ethically. While the content characteristics of a code — such as its length, focus, level of detail, emphasis, thematic content and tone (Gaumnitz & Lere 2004) are certainly presumed to be important in determining its effectiveness, this study recognises that to be effective, a code of ethics should be successfully institutionalised and enforced. The objective of this paper is to examine the influence of code institutionalisation, awareness, understanding and enforcement on the ethical behaviour of IT employees.

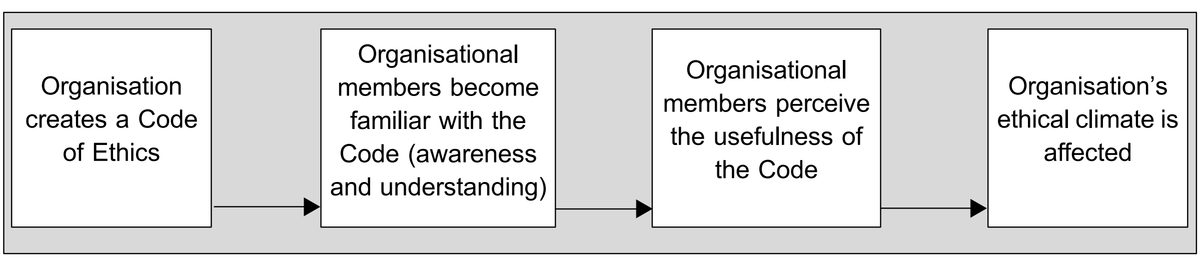
Understanding the factors that influence ethical behaviour of employees is undoubtedly of significant practical and theoretical value. It is thus important to identify factors that influence the effectiveness of codes of ethics and to determine how such codes can translate into a more ethical IT workforce. The results will thus have important implications for organisations using, or intending to use, codes of ethics to influence the behaviour of IT personnel.

The next section of this paper draws on both the information systems and business ethics literature and presents the theoretical background and hypotheses underlying the research model. Subsequent sections outline the research methodology and present the results of empirical testing. In the final section, the results are discussed and the paper concluded.

Research model and hypotheses

The Association for Computing Machinery (ACM) defines ethical behaviour as the behaviour of an IT professional who, in all work-related activities and functions, acts with responsibility and integrity, accepts responsibility for all acts, and uses special knowledge and skills for the advancement of human welfare (Udas et al. 1996: 725). While the presence of a code of ethics within an organisation is an indication that management values ethical behaviour (Adams, Tashchian & Shore 2001), it has also been recognised that "the mere existence of an ethics code in an organisation does not guarantee that employees know about it, understand it, or use it to guide their attitudes and actions" (Vitell & Davis 1990).

The introduction of a code of ethics is thus only a starting point for creating the organisational conditions required for ethical behaviour. Wotruba, Chonko & Loe's (2001) conceptual model provides the point of departure for the current study and describes how employee ethical behaviour is influenced in four steps (see Figure 1). The first step is the creation of a code of ethics, which demonstrates the organisation's desire for ethical behaviour. In the second step, employees must become familiar with the code. Wotruba et al. indicate that familiarity includes both employees' awareness of a code's existence as well as an understanding of its content. In the third step, code familiarity will allow employees to recognise the usefulness of the code as a guide to behaviour. Finally, the entire ethical climate of the organisation will be enhanced as more and more employees adopt the standards of behaviour required by the code.



Source: Adapted from Wotruba et al. 2001: 63

Figure 1: Influence of codes of ethics on employee behaviour

Other recent research has also begun to suggest that codes will be ineffective in influencing employee behaviour unless they have "penetrated into the minds of employees" (Schwartz 2001). Such penetration is observable to the extent that employees are aware of the code and understand its ethical standards and the relevance of its provisions to their work (Schwartz 2001). Both code awareness and understanding have previously been identified as necessary to ensure that a code impacts upon behaviour (Sims 1991; Dean 1992; Ashkanasy, Falkus & Callan 2000).

However, fostering code awareness and understanding can only be achieved if an organisation properly institutionalises the code (that is, communicates the code and its content to employees). Moreover, explicit enforcement may also be necessary for ensuring a code's success in influencing employee behaviour (Laczniak & Murphy 1993; Trevino & Nelson 1995; Adams et al. 2001; Kreie & Cronan 2000). These relationships are explored next.

Code institutionalisation

Code institutionalisation, or communication, has been identified as an important component of a code's implementation (Stead, Worrell & Stead 1990; Trevino & Nelson 1995; Harshman & Harshman 1999; Fisher 1993; Pierce & Henry 1996), and may be an important mechanism for promoting employee awareness and understanding of the code. Unfortunately, proper institutionalisation (communication) of codes within organisations tends to lag behind their adoption (Somers 2001). Training (Stead et al. 1990), prominent displaying of the code throughout the organisation (Fudge & Schlacter 1999), as well as distributing and discussing the code with employees (Weeks & Nantel 1992) have been identified as important ways in which a code of ethics can be institutionalised. Through such platforms, employees learn about the code and the guidelines it offers (Wotruba et al. 2001), as well as the organisation's "commitment to the ideals of being ethical" (Wood & Rimmer 2003: 192). If a code is not widely publicised to employees, then employees are unlikely to know of its existence, and consequently it would have no effect on their behaviour (Cressey & Moore 1983). Institutionalisation assists employees in the acceptance of a code's principles, thus encouraging them to consider it as a referent as well as gain a more comprehensive understanding of its content. It follows that:

> Hypothesis 1a: The degree of code institutionalisation has a direct effect on the level of code awareness among employees.
>
> Hypothesis 1b: The degree of code institutionalisation has a direct effect on the level of code understanding among employees.

Code awareness

Awareness refers to an employee's knowledge of the existence and whereabouts of the code as well as the knowledge that it should be consulted when the employee encounters a problem of moral or ethical significance. It has been argued that even if employees might not have read or understood the code in its entirety, their knowledge that the code exists should influence their behaviour (Trevino & Nelson 1995). Kreie & Cronan (2000) demonstrated that IT professionals were unlikely to engage in unethical conduct if they knew of the existence of an organisational code. With awareness comes the recognition that the code is an expression of the moral content of the organisation's culture and that it is to be used as a referent when confronted with an ethical dilemma (Trevino 1986). It is thus hypothesised that:

> Hypothesis 2: Level of code awareness has a direct effect on intention to behave ethically.

Code understanding

It is possible that an employee can be aware of a code but not know anything about the issues it addresses (Wotruba et al. 2001). Therefore, code understanding is an important part of code penetration and refers to an employee's deeper comprehension of the content of the code. The importance of code understanding for resulting ethical behaviour has previously been noted (Weaver 1995; Ashkanasy et al. 2000), while ignorance of the code's content has been cited as an underlying cause of non-compliance (Schwartz 2001). Wotruba et al. (2001) argue that only when employees have a clear understanding of the code can it have the potential to transmit ethical values and standards. Through their understanding of the code, employees become sensitive to ethical issues and recognise the usefulness of the code as a guide to ethical behaviour (Wotruba et al. 2001). If employees lack understanding of the code's expectations, there is a greater risk of non-compliance. It is thus hypothesised that:

> Hypothesis 3: Degree of code understanding has a direct effect on intention to behave ethically.

Although there is evidence to suggest a direct effect of code awareness on behaviour, it must also be recognised that awareness may not impact behaviour in the absence of understanding. When the code is better understood, it might more usefully serve as a referent. In the absence of understanding, awareness may not in itself result in appropriate ethical judgements. Since awareness must precede understanding, it is hypothesised that:

> Hypothesis 4: Degree of code understanding mediates the relationship between code awareness and intention to behave ethically.

Code enforcement

For codes of ethics to be effective, they must be enforced (Allen & Davis 1993). It has been suggested that enforcement through monitoring and surveillance, as well the threat of punishment and sanctions, must exist (Kelman 1961; Brief et al. 1996; Nijhof, Cludts, Fisscher & Laan 2003). Murphy (1995) suggests that without enforcement, codes of ethics are not "worth the paper they are written on". Lack of punishment provides opportunities for unethical behaviour (Zey-Ferrell & Ferrell 1982), and failure to enforce the code may create a perception of "misalignment between words and deeds" and thus have little effect on behaviour (Trevino & Nelson 1995: 205). Fear of punishment is an important input into decision-making when confronted with ethical dilemmas (Adams & Tashchian 1995), and larger penalties yield greater potential that the actions of an employee will change (Lere & Gaumnitz 2003). It is thus reasonable to assume that without enforcement, codes of ethics do not act as a sufficient deterrent (Brief et al. 1996), and are unlikely to affect ethical behaviour. Taken together with Ferrell & Skinner's (1988) finding that the enforcement of codes of ethics is effective in influencing ethical behaviour, it is hypothesised that:

> Hypothesis 5: Perceived level of code enforcement has a direct effect on intention to behave ethically.

The relationships as hypothesised can be depicted as a structural model (Figure 2). Prior studies support the inclusion of age as an important control variable in the study of ethical behaviour (Ruegger & King 1992; Brady & Wheeler 1996; Adams et al. 2001; Udas et al. 1996). Since younger individuals are more likely to act practically than ethically (White & Dooley 1993), and since age and corresponding experience can result in greater ethical sensitivity (Loe, Ferrell & Mansfield 2000), a positive effect of age on ethical behaviour is expected.

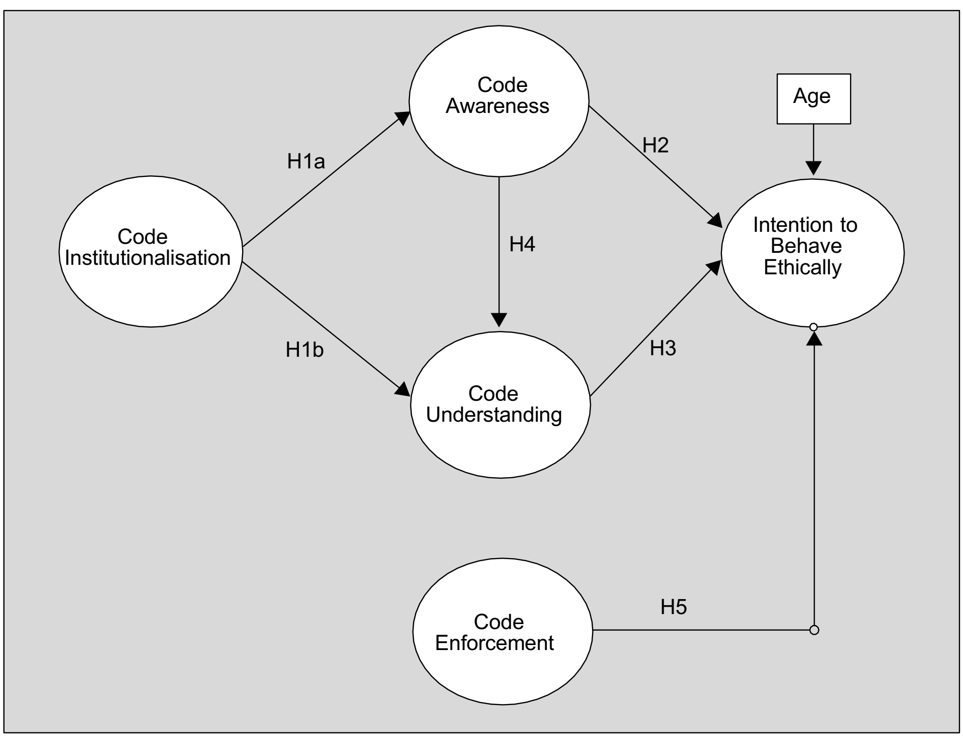


Figure 2: Research model

Research methodology

Sample

To test the hypothesised model (Figure 2), a pilot-tested questionnaire was administered to a sample of IT professionals subscribing to an online IT news site in South Africa. The questionnaire was administered online and was posted on the IT news site for two weeks. Anonymity was guaranteed in order to encourage respondents to answer all questions truthfully.

Seven hundred and thirty eight (738) responses were received in the two-week period. Respondents who indicated that their organisation did not have a code were removed from the sample, as were those who did not specify the type of code (general employee or IT employee specific) in place. Of the remaining 374 responses, 186 indicated that a code of ethics, specific to IT employees, existed within their respective organisations. These 186 responses constitute the sample for the study. Table 1 illustrates the sample characteristics.

Table 1: Demographic characteristics of the sample

Gender	n	%
Male	171	92
Female	15	8
Age		
18–25	17	9
26–35	63	34
36–45	49	26
46–55	45	24
56 and older	10	6
Missing	2	1
Management level		
Lower (Operational)	33	17
Middle (Tactical)	87	48
Upper (Strategic)	62	33
Missing	4	2

The sample is heavily biased toward males. The majority of respondents are aged between 26 and 45 years, and have a fair degree of management experience. Given this demographic profile, although not necessarily unrepresentative of the South African IT workforce, generalising results outside of the sample may be problematic.

Measurement

Each of the study's constructs was measured using multiple items adopted from the literature. Six statements were used to measure 'intention to behave ethically' (IBE). These statements were adapted from the work of Udas et al. (1996), and are intended to cover each of three Association for Computer Machinery (ACM) canons of ethical behaviour, namely: (1) acting with integrity and responsibility, (2) accepting responsibility for acts, and (3) using special knowledge and skills for the advancement of human welfare. The statements were all phrased in the first person, and respondents were asked to indicate whether or not they agreed with each statement measured on a seven-point Likert scale. It is important to recognise that intention to behave ethically rather than actual ethical behaviour is captured by the instrument. However, according to the Theory of Reasoned Action (Ajzen & Fishbein 1980), intentions to behave in a certain manner are considered acceptable surrogate measures for actual behaviour. Other studies, for example Oz (2001), support this thinking.

The construct 'code awareness' was measured using two items rated on a seven-point scale. These items reflected the respondent's knowledge of the whereabouts of their company's code of ethics for IT employees as well as knowing that it can be used in dealing with ethically challenging situations. 'Understanding' of a code of ethics was measured using three items reflecting the respondent's comprehension of the code and ability to explain the content of the code to a colleague. 'Degree of code institutionalisation' was measured by four items reflecting the number of mechanisms used to convey the code to employees both verbally and visually. Finally, 'enforcement' was measured using three items reflecting mechanisms in place to monitor employees and ensure their compliance with the code.

Table 2 lists the study's constructs and measures and their corresponding literature support.

Empirical results

To test the hypothesised model, the partial least squares (PLS) approach to structural equation

Table 2: List of study's constructs and measures

Abbreviation	Constructs and measures [a]	Literature support
	Intention to behave ethically	
Ethics1	I would knowingly allow my work to be used in socially irresponsible ways if I was being paid a substantial amount for it (r)	Udas et al. (1996)
Ethics2	I would intentionally misrepresent my qualifications to prospective clients to secure a deal (r)	
Ethics3	I would remain silent about part of an IT project that violated a national law if my immediate supervisor directed me to (r)	
Ethics4	In consulting with a client, I would exaggerate the degree of progress made on a system if I was running behind schedule (r)	
Ethics5	I would work on an IT system that would have a negative impact on the environment if my company allocated me to work on such a system (r)	
Ethics6	Even if I could make more money out of the sale of System 1, I would still recommend System 2, as it contributes more to the betterment of social conditions	
	Code institutionalisation	
Comm1	The code is always explained to new staff	Stead et al. (1990)
Comm2	All employees are sent on a training course that deals with my company's code of ethics and the ethical behaviour advocated by the code	Kreie & Cronan (2000), Stead et al. (1990), Fudge & Schlacter (1999)
Comm3	If an unethical issue arises, this is discussed in staff meetings, with reference to the code	Kreie & Cronan (2000), Stead et al. (1990)
Comm4	The code is clearly visible on notice boards or the intranet	Snell et al. (1999)
	Code awareness	
Aware1	I would know where to find the code	Schwartz (2001)
Aware2	I would consider referring to the code if I was faced with an ethically challenging scenario and I did not know how to act	Snell et al. (1999)
	Code understanding	
Uoc1	I have read the code in its entirety	Schwartz (2001)
Uoc2	I understand the content of the code	Weeks & Nantel (1992)
Uoc3	I could explain the content of the code to a fellow employee	Weeks & Nantel (1992)
	Code enforcement	
Enf1	Each employee is required to sign a statement indicating that they have read and understood the code	McCabe et al. (1996)
Enf2	The code states the enforcement procedures that the company will adopt if an employee acts against the code	Udas et al. (1996)
Enf3	My company uses monitoring and surveillance systems/software to make sure employees behave ethically	Kreie & Cronan (2000)

[a] All items were measured on a 7-point Likert scale from 1 = strongly disagree to 7 = strongly agree

modelling (SEM) was employed. PLS-Graph (version 3.0, build 1196) was used. PLS was considered an appropriate alternative to more common maximum likelihood estimation (MLE) approaches to structural equation modelling such as LISREL, as PLS makes no assumptions about scale of measurement, and there are no distributional requirements (Fornell & Bookstein 1982). PLS allows both the measurement model (relationship between constructs and their indicators) and the structural model (relationship between constructs) to be assessed simultaneously. In specifying the measurement model, all constructs were modelled in the reflective mode.

Partial least squares analysis

In the initial analysis of the measurement model, three ethical behaviour items (Ethics1, Ethics5, Ethics6) loaded poorly on the IBE construct and were thus dropped. Two of these three items related to the third ACM canon: 'using special knowledge and skills for the advancement of human welfare'. Thus ethical behaviour was measured with three items that reflect the first two ACM canons only. Table 3 presents the final measurement model. All constructs displayed adequate reliability, item loadings were above 0.5 (Falk & Millar 1992) or close enough to be considered acceptable,[1] and internal consistency measures exceeded the minimum accepted cut-off level of

Table 3: Tests of the measurement model for multi-item constructs

Construct and indicators	Loading [a]	Internal consistency [b]	AVE [c]	Square root of AVE [d]
Institutionalisation		.88	.64	.80
Comm1	.83			
Comm2	.79			
Comm3	.83			
Comm4	.75			
Awareness		.80	.67	.82
Aware1	.82			
Aware2	.82			
Understanding		.94	.84	.92
Uoc1	.86			
Uoc2	.96			
Uoc3	.93			
Enforcement		.78	.55	.74
Enf1	.85			
Enf2	.84			
Enf3	.49			
Intention to behave ethically		.80	.57	.75
Ethic2	.63			
Ethic3	.81			
Ethic4	.81			

[a] Loadings are similar to loadings in a principal components analysis
[b] Fornell & Larcker's (1981) internal consistency measure
[c] Average variance extracted (AVE) used to establish convergent validity
[d] Square root of the AVE used to establish discriminant validity (should be greater than corresponding rows and columns in correlation matrix, see Table 4)

1 Although item Enf3 loaded relatively low on the enforcement construct, it was retained, as the loading was significant (t = 2.9) and the item was critical to the definition of the construct

Table 4: Correlations between latent constructs

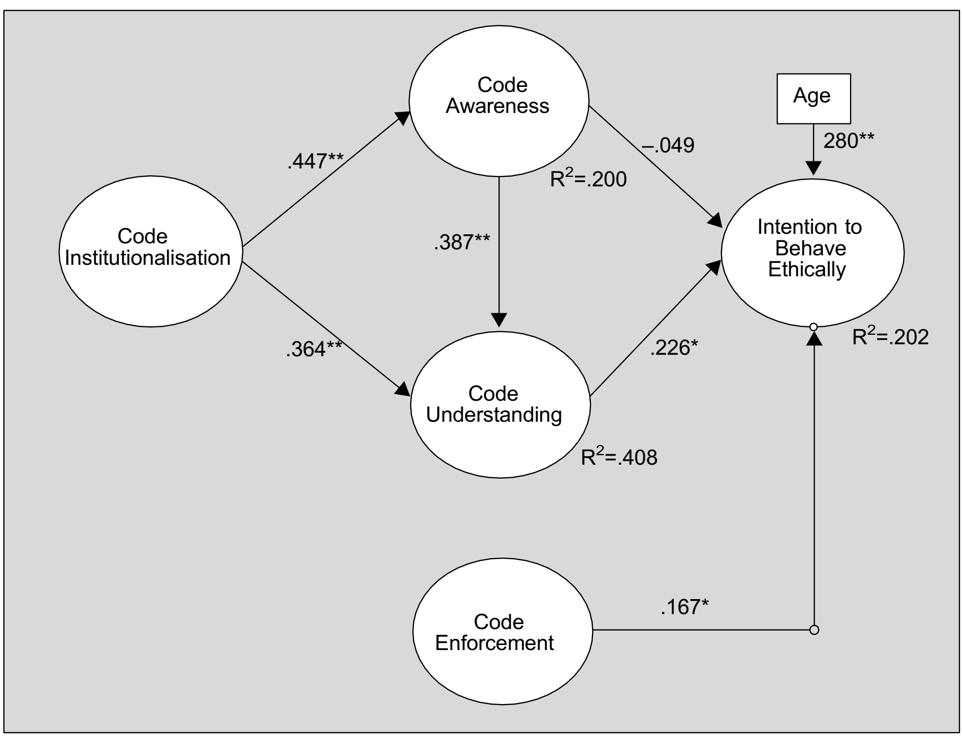
	Communication	Awareness	Under-standing	Enforcement	Intention to behave ethically
Communication	.80#				
Awareness	.447	.82			
Understanding	.537	.550	.92		
Enforcement	.542	.479	.379	.74	
Intention to behave ethically	.292	.189	.317	.265	.75

square root of AVE on diagonal

0.70. Convergent validity was established by examining the average variance extracted (AVE) for each construct. Table 4 presents the correlations between the model's latent constructs with the square root of the AVE for each construct on the diagonal. Discriminant validity was established by ensuring that the entries on the diagonal were greater than the entries in the corresponding rows and columns. This ensures that a construct shares more variance with its own indicators than it does with other constructs in the model.

Once the measurement model had been considered acceptable, the path coefficients in the structural model were assessed. Figure 3 presents the results of the test of the structural model. Bootstrapping (500 re-samples) was used to calculate the *t*-values associated with the path coefficients. The *t*-value was calculated as the mean path coefficient divided by the standard error produced by the PLS output.

Paths from code institutionalisation to both awareness and understanding were found to be significant. This provides strong support for the importance of code communication in firstly increasing employee's knowledge of the code and secondly increasing employees' likelihood of internalising the code's content. It is thus critical that



** *significant at the p<0.01 level*
* *significant at the p<0.05 level*

Figure 3: PLS analysis of structural model

organisations realise the importance of code institutionalisation/communication in the implementation of a code of ethics, thus confirming the claims made by numerous scholars (Stead et al. 1990; Trevino & Nelson 1995; Harshman & Harshman 1999; Fisher 1993; Pierce & Henry 1996) within an IT employee context in South Africa.

Although a significant effect of awareness on IBE was expected (Adams et al. 2001; Kreie & Cronan 2000), the direct path from awareness to IBE was not supported. The insignificant effect of awareness on behaviour may be a result of the weakness in the construct's measurement. However, the path from understanding to IBE was both positive and significant. Moreover, awareness was found to have an indirect effect on IBE through its effect on understanding. This suggests that the usefulness of a code as a referent occurs only after it has been thoroughly understood. The model thus confirms the importance of code understanding and the role it plays in influencing ethical behaviour (Weaver 1995; Ashkanasy et al. 2000). Codes are more effective in influencing ethical behaviour when they are understood.

Enforcement was also found to have a significant influence on IBE. The importance of age as a control variable was confirmed. Age is significantly related to ethical behaviour, in that older IT professionals are more likely to behave ethically.

The results of the study strongly support the hypothesised model, and hypotheses 1a, 1b, 3, 4 and 5 were confirmed. The model explains over 20% of the variance in IBE (R^2=.202). Degree of code institutionalisation accounts for a large percentage of variance in awareness (R^2=.200), and together they account for over 40% of the variance in code understanding (R^2=.408). Thus the predictive power of the model is confirmed.

Despite the model's success, 80% of intention to behave ethically is left unexplained. Other than codes of ethics, various individual and organisational factors (see Stead et al. 1990; Bommer, Gratto, Gravander & Tuttle 1987; and Loe et al. 2000 for a review) may influence ethical behaviour. In addition, experience in IT can also influence perceptions of acceptable ethical conduct among IT professionals (Winter, Stylianou & Giacalone 2004). These factors may emerge as important moderators of the effect of codes of ethics on the ethical behaviour of IT employees. Future research should empirically test these relationships.

Managerial recommendations

The thesis of this paper that codes of ethics will be effective in influencing the behaviour of IT personnel if they are institutionalised (communicated) and enforced has been largely supported. The results demonstrate that once codes have penetrated into the minds of IT employees, these employees are more likely to behave in accordance with their guidelines. Enforcement sends a message that sanctions for unethical behaviour exist, and the fear of punishment serves as a useful deterrent to unethical behaviour.

These findings may prove particularly useful, in light of the findings by the Ethics Institute of South Africa (EthicsSA 2002) that South African companies are failing to communicate to employees about ethics and ethics code compliance, that few employees are receiving adequate ethics education, and that many employees report poor knowledge of their organisation's code of ethics. Moreover, a recent study focusing on the ethical attitudes of South African IT professionals urged senior IT and business managers to do more to educate IT employees about ethical issues, given that many respondents reported numerous ethical problems related to IT within their organisations (Charlesworth & Sewry 2004).

The results reported here provide guidance and suggest that the ethical behaviour of IT employees can be influenced by organisational action, and therefore that managers should become involved in the moral development of employees. Managers must recognise that employees are often faced with ethical dilemmas and should attempt to influence the ethical behaviour of IT employees through the purposeful communication and enforcement of a code of ethics. A code is unlikely to be of any use unless managers ensure that all IT employees are aware of and understand the content of the code. To ensure that employees are aware of and understand the content of the code, institutionalisation/communication of codes must become an important component of any organisation's ethics management system. This can occur through mechanisms such as training, staff discussions and high code visibility. Furthermore, as suggested by McDonald & Nijhof (1999), managers should determine whether their existing disciplinary process is significantly effective in dealing with unethical behaviour. Managers must realise that enforcement is necessary for preventing unethical practices from being perpetuated (McDonald & Nijhof 1999). Enforcement through monitoring systems, sanctions and penalties will help to ensure code compliance. Findings also suggest that these recommendations become increasingly important in organisations with a younger work force.

Conclusion

This study has significant implications for managers charged with the responsibility of managing personnel and promoting their ethical behaviour. The study found that ethical behaviour of IT employees can be positively influenced, and that codes of ethics can be effective in this regard. However, organisations need to do more than just formulate codes of ethics. To influence employee behaviour, the code needs to be extensively institutionalised/ communicated, and there should also be enforcement mechanisms in place. It was found that institutionalisation of the code influences employee understanding of the code, which in turn emerged as an important factor influencing ethical behaviour. Future research should extend this model to enhance the explanation of how codes of ethics can be effective in influencing ethical behaviour.

Note

An earlier version of this paper was presented at the 2004 International Conference on Information Systems, Washington, DC, and is based on the masters research of the first author.

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