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A critical evaluation of the Downs-Hazen instrument (CSQ) by measuring employee communication satisfaction at a private higher education institution in South Africa

Corné Meintjes and Benita Steyn

Abstract

The aim of this article is to provide a critical evaluation of the Downs-Hazen instrument (Communication Satisfaction Questionnaire) (CSQ) by applying it to the measurement of employee communication satisfaction at a private higher education institution in South Africa. Three communication satisfaction dimensions, consisting of eight constructs, were measured. The results indicated that although employees are satisfied with their relationship with superiors, a need exists for improved communication on the psychological atmosphere in the organisation; the information employees receive about their immediate work environments, meetings and written directives; horizontal and informal communication that is accurate and free flowing; information about the organisation as a whole; as well as the way in which employees are being judged and appraised.

A final conclusion is that the Downs-Hazen CSQ is still applicable even though it was first developed almost 30 years ago. Furthermore, the adjustments to items in this study did not affect the reliability of the adapted questionnaire.

Abstrak

Die doel van hierdie artikel is 'n kritiese evaluasie van die Downs-Hazen instrument (CSQ) deur die meting van werknemer kommunikasietevredenheid by 'n privaat hoër onderwysinstansie in Suid-Afrika. Drie kommunikasietevredenheid dimensies, bestaande uit agt konstrakte, is gemeet. Die resultate dui aan dat, alhoewel werknemers tevrede is met die verhouding met hul hoofde, daar 'n behoefte aan beter kommunikasie oor die sielkundige atmosfeer in die organisasie; die inligting wat werknemers ontvang oor hul onmiddellike werkomgewings, vergaderings en geskrewe voorskrifte; horisontale en informele kommunikasie wat akkuraat is en vry vloei; inligting oor die organisasie in geheel; asook die wyse waarop werknemers beoordeel en ge-evalueer word.

'n Finale gevolgtrekking is dat die Downs-Hazen CSQ steeds toepasbaar is ten spyte van die feit dat dit amper 30 jaar gelede vir die eerste keer ontwikkel is. Verder het die aanpassings van die items in hierdie studie nie die betroubaarheid van die aangepaste meetinstrument beïnvloed nie.

1. Introduction

The private higher education institution being investigated in this study is part of the largest private education provider in South Africa, accredited with the Council on Higher Education. Founded in 1989 as a tuition centre for the University of South Africa (Unisa) programmes, its focus is on higher learning at undergraduate as well as postgraduate levels.

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The institution adjusted its focus when new legislation enabled private institutions to provide accredited diploma and degree programmes. It set up new branches and appointed new management, resulting in growth in both student numbers and employees. The holding company realigned business units to become more streamlined and focused. The chief executive's rationale was that much duplication in programmes existed throughout the group. Not only was this a waste of resources but in effect, the group created competition for itself. These changes had a direct or indirect impact on the employees of the private higher education institution being investigated.

The situation outlined above is typical of the constant change to which organisations are subjected in the new business paradigm, and their continually needing to reinvent themselves in order to survive. Such redirections of corporate strategy have far-reaching consequences, not only for employees personally, but also for the achievement of the new corporate goals. According to Puth (2002, 110), change is difficult for most people and resistance to change is one of the strongest laws of human nature. To overcome such resistance and manage the change process effectively, excellent communication with employees can be a strategic tool.

2. Problem statement

Ströh (1998, 16) states that changes occur in organisations because of changes in the environment. In order to survive in a rapidly changing environment and obtain a competitive edge, South African companies should take note of the importance of effective communication in dealing with the consequences of these changes – not only with its external stakeholders, but also with organisational members (Puth 2002, 110). If communication is bad, an organisation is likely to underperform. If it is good, an organisation's performance and overall effectiveness will also be good. Excellent internal communication makes people feel that they are valued for their contribution makes them and take pride in their work. Group cohesion is obtained when employees can link their personal success to the success of the company for which they are working (Steyn and Groenewald 1996, 2, 6).

However, many organisations do not view communication as an important aspect of doing business, and a large majority of modern-day managers do not regard effective employee communication as the most crucial part of their job as managers and leaders. They still believe that they have to focus on managing their operational function and people, and that they can leave employee communication to the corporate communication function. Other managers think that their communication with employees is sufficient, pointing to one of the biggest problems with communication, namely, the illusion that effective communication has been accomplished (Van der Merwe 1998).

For many decades, in-house publications have been viewed as the solution to communication with employees, while more personal communication methods have

been under utilised. In many instances, management has failed to properly explain the rationale behind strategies that seem to ignore their impact on the lives of loyal employees (Puth 2002). In practice, the production of publications and other media that have no strategic purpose in mind dominate. However, in order for employee communication to be excellent, it should be based on the principles of two-way symmetrical communication (Grunig 1992, 536).

Communication audits in recent years have indicated that employees prefer personal communication from their immediate supervisor, senior executives and small group meetings, in that order (McCathrin 1989). Employees are most satisfied with information that helps them make sense of their situation by explaining how their jobs fit into the organisational mission, about organisational policies and plans, and about relationships with key constituencies in the organisation's environment (Grunig 1992, Grunig and Dozier 2002, 487).

South African companies (including the private higher education institution that is the focus of this research), should therefore realise that the secret to increasing productivity and organisational effectiveness through communication lies in the hands of its managers, because they are the people that determine the culture and strategies of the organisation. They are also the people whose communication style influences the motivation and productivity of their employees.

This is especially true in the current environment where changes in the South African education arena in general, as well as changes in education legislation have caused turmoil – not least among employees of higher education institutions. Although in some respects these changes could be seen as positive for the private higher education institution, it has placed strain on overloaded employees and managers – the latter being left with little time or inclination to communicate effectively with their employees.

Although the institution relied heavily on supervisory/managerial communication to inform and motivate its employees, the latter were experiencing uncertainty and dissatisfaction with the institution's communication among other things, they felt they were not receiving timeous information about what was expected of them, how they were doing and where the organisation was going, nor did they feel they were involved in the decision-making processes.

The primary objective of this study was thus to determine the *communication satisfaction* of employees at the private higher education institution by using a standardised instrument, the Downs-Hazen Communication Satisfaction Questionnaire (CSQ). The CSQ was considered particularly relevant to this study (being based on the theoretical assumption that communication satisfaction is multidimensional). The CSQ instrument was developed by means of several studies, the first in 1976 when Osmo Wiio conducted 22 organisational communication audits in Finland. Downs and Hazen (1977) used similar procedures for further investigating the concept of communication satisfaction. Their

factor analyses resulted in eight stable constructs of communication satisfaction (i.e., communication climate, communication with supervisors, communication with subordinates, organisational integration, media quality, horizontal communication, organisational perspective and personal feedback) (Hamilton 1987, 113). In 1984 and 1986, Pincus (in Grunig 1992, 554) revised the Downs-Hazen instrument by differentiating between three dimensions of communication satisfaction: the *relational dimension*, that is, subordinate communication, horizontal communication and top management communication; the *informational/relational dimension*, that is, personal feedback, communication climate, and supervisor communication; and the *informational dimension*, that is, media quality, organisational integration, and corporate perspective. (For the purpose of this study, top management communication is not included.)

A secondary objective of this research was to analyse and compare the use of the Downs-Hazen CSQ in previous studies with this study, with a view to evaluating its applicability to, and implementation in, the South African (educational) context. The rationale for this objective was the following:

- It is now more than a decade since this measure was last revised.
- Its constructs are, however, still relevant to communication measurement today and merit further investigation in different cultures/countries/industries.
- To the authors' knowledge, the instrument has not yet been utilised in the South African context.

3. Meta-theoretical and theoretical framework

The theoretical framework and conceptualisation of the study is graphically summarised in Table 1. Each of the theoretical components is then discussed under a separate heading on the following pages.

Table 1: Theoretical framework and conceptualisation

Domain ● Sub-domain	Communication ● Internal communication (specifically, management communication)
Meta-theory	General theory of excellence
Theory	Human resources management theory
Concept	Communication satisfaction
Construct 1	Relational dimension ● Subordinate communication ● Horizontal communication
Construct 2	Relational /information dimension ● Personal feedback ● Communication climate ● Supervisor communication
Construct 3	Information dimension ● Media quality ● Organisational integration ● Organisational perspective
Items	Measurement questions represented by 26 items. Source: Own conceptualisation, based on Steyn (2000,12)

3.1 Domain of the study

Communication is a recent academic discipline (Rubin, Palmgreen and Sypher 1994, 57–58). This study is positioned in one of its sub-fields, management communication – the only field of study that integrates *communication* and *management*. In this sub-domain, communication is regarded as the means to an end, namely the attainment of organisational goals. It incorporates from communication science everything a manager needs to know and do in order to manage people as a resource more effectively. Management communication follows a functional approach where communication is intended to influence management decisions. The focus is on the internal communication process, that is, the *informal interpersonal communication* between a manager and his or her employees (Reinsch in Groenewald 1998, 47; Steyn and Puth 2000, 6).

Management communication is therefore not the same as internal communication. Internal communication is a much wider concept, incorporating all horizontal, vertical and lateral communication in organisations. Management communication refers specifically to communication between managers and their subordinates, as well as between top management and their employees (Groenewald 1998, 47).

In order to achieve the goals of the private higher education institution (and indeed any other modern organisation), successful management communication with its focus on the informal interpersonal communication process is crucial. If management communication is practised successfully in the private higher education institution, employees will experience communication satisfaction which, in turn, will have an impact on the institution's effectiveness. Management communication is thus considered particularly relevant as a framework for this study.

3.2 Meta-theoretical approach

The general theory of excellence in public relations and communication management is the meta-theoretical approach to this study, based on a two-way symmetrical communication world view. Major assumptions of this approach relevant to this study are that information flows freely between (sub)systems (i.e., between management and employees); management seeks a moving equilibrium with other systems (employees) through co-operation and mutual adjustment; the input of all people (including employees) is valued; employees have great autonomy; innovation is valued over tradition; and there is a commitment to eliminating the adverse consequences of organisational actions for stakeholders (including employees) (Botan and Hazleton 1989). Organisations using the two-way symmetrical communication model employ bargaining, negotiation and strategies of conflict resolution to bring about symbiotic changes in the ideas, attitudes and behaviours of both the organisation and its strategic stakeholders – in this case, employees (Grunig and White 1992, 39).

Two-way information sharing between management and employees can improve decision making and work performance by facilitating decision making by employees at the lowest possible levels. This increased participation could contribute to higher levels of employee satisfaction and quality of work life. While managers can plan two-way symmetrical systems of communication, the latter cannot be fully effective without changes in culture and structure (Grunig 1992, 531).

By practising symmetrical communication as the catalyst that initiates overall organisational excellence and effectiveness, the private higher education institution can ensure employee communication satisfaction and thereby maintain organisational effectiveness. In the opinion of the authors, this is best achieved by following an interpersonal communication strategy (between managers and employees), complemented by internal communication programmes. However, neither of these existed in the private higher education institution prior to this study.

3.3 Theoretical framework

This study was conducted within the framework of human resource management theory. This theory developed when managers started to realise that people work for more than

just money. They wanted to belong and feel wanted, and were interested in meaningful jobs. People who are properly motivated, given a say in setting job-related goals and determining how the work is to be done, will assume responsibility and exercise self-direction and self-control in carrying out their jobs (Gibson and Hodgetts 1989, 37).

In this approach, managers recognise the innate ability of employees. They believe that employees are hard working, intelligent and determined to perform their tasks right the first time. They typically adopt a participative management style that encourages such behaviour, that is, loose control, heavy delegation of authority, and a reward system designed to promote initiative, creativity and high job performance. At the heart of a participative style lies communication (Gibson and Hodgetts 1989, 38).

The communication status during the human resource management era was both formal and informal in nature. Communication took whatever direction necessary to ensure efficiency and effectiveness, and was used for more than mere control purposes, namely to support participative planning. Decision-making processes were decentralised and, in many cases, authority based on knowledge replaced authority of the position. Furthermore, the informal organisation was an important part of organisational life and management encouraged its support and assistance. The purpose of communication was to tap the full potential of all individual organisational members (Gibson and Hodgetts 1989, 45–46; Narayanan and Nath 1993, 40).

The relevance of human resource management theory to this study is the benefits of its managerial communication style. In order that the private higher education institution achieves its new strategic goals and successfully manages the accompanying changes, it needs excellent managerial/supervisory communication. A participative management style accompanied by informal, empowering communication will encourage staff to take responsibility and employ self-direction in carrying out their jobs. According to the theory, a climate of trust and openness and frequent communication between managers and employees at the PHEI will lead to satisfaction with the institution's communication. In turn, this will tap the full potential of employees, leading to increased organisational effectiveness and goal achievement.

4. Conceptualisation

4.1 Communication

Constant communication between managers and subordinates is conducive to good employee relations. It results in greater work satisfaction and higher productivity (Cronje, du Toit and Motlatla 2000, 161).

Carr (Jain 1998, 51) describes communication as 'the internal network, which should be a two-way flow: it should be output-oriented, in that employees should know what is expected of them: and input-oriented, in that employees should have a say in how their

working environment of productivity, customer service, product, service quality, and operational efficiency is structured and what is happening in that environment'. This definition of communication is particularly relevant to this study in that the private higher education institution's employees should know why all the changes in corporate strategy are taking place and what is expected of them. Furthermore, that they should be allowed to have a say and make an input into decisions in the new internal environment. However, for this to happen, the institution's managers should employ and engage in a participative management and two-way symmetrical communication style.

4.2 Communication satisfaction

Alswang and van Rensburg (1991, 764) define *satisfaction* as contentment, something that pleases and/or fulfils. Thayer (in Hamilton 1987, 112) defines *communication satisfaction* as the personal satisfaction inherent in successfully communicating to someone or in successfully being communicated with. For the purpose of this study, communication satisfaction is regarded as the extent to which the employees of the institution are satisfied with the amount, type and quality of communication received.

Steyn and Groenewald (1996, 4) argue that the fundamental purpose of internal communication is to improve performance by changing the behaviour of all employees (including managers). Traditional means of communication have not changed employees' behaviour because they depend largely on communication programmes launched by the corporate communication function/division. To link communication directly with corporate goals that make a contribution to the bottom line of the organisation, communication has to become everyone's business. In this way communication manages the behaviour of employees, their behaviour affects the customer and customer behaviour directly affects the bottom line.

According to Downs and Hazen (1977), communication satisfaction consists of the following constructs: communication climate, communication with supervisors and with subordinates, organisational integration, media quality, horizontal communication, organisational perspective, and personal feedback. These constructs were developed by factor analysing 88 items, measuring the satisfaction of employees with different aspects of communication as discussed below.

● *Satisfaction with communication climate*

According to Grunig (1992, 540), the concept of communication climate refers to a psychological atmosphere in an organisation that is warm, tolerant and participative, and where quality of work life, innovation and organisational development are valued. A positive climate features trust, openness, credibility, accuracy and frequent communication. Clappitt and Downs (1993, 2) see communication climate as reflecting communication on both the organisational and personal levels. It includes looking at the extent to which communication

in the organisation motivates and stimulates workers to meet organisational goals, as well as the extent to which it makes them identify with the organisation.

- *Satisfaction with the relationship with supervisor/subordinate*

Falcione, McCrosky and Daly (in Grunig 1992, 552) have found a consistent relationship between the way employees perceive the communication behaviour of their supervisor and their satisfaction with the supervisor. It must be noted that some kinds of employees are likely to be dissatisfied, regardless of how their supervisor communicates with them. Clampitt and Downs (1993, 2) state that supervisory communication and subordinate communication includes both upward and downward aspects of communicating with superiors. Managers should encourage people to speak up when they disagree with a decision and inform all employees of what is happening in other parts of the organisation (Corbett in Tang, Kim and O'Donald 2000, 540). Considerable research has been conducted into the immediate supervisor–employee communication relationship, demonstrating a strong, positive association. Research conducted by Pincus and Rayfield (1987, 14) suggest that employees also look to top management to satisfy certain of their communication needs.

- *Satisfaction with organisational integration*

According to Clampitt and Downs (1993, 2), organisational integration revolves around the degree to which individuals receive information about their immediate work environment. This includes the degree of satisfaction with information about departmental plans, the requirements of their jobs and some personnel news.

- *Satisfaction with media quality*

Satisfaction with media quality refers to employee reactions to several important communication channels (Hamilton 1987, 113). It deals with the extent to which meetings are well organised, written directives are short and clear, and the degree to which the amount of communication received is satisfactory (Clampitt and Downs 1993, 2).

- *Satisfaction with horizontal communication*

Co-worker communication concerns the extent to which horizontal and informal communication is accurate and free flowing (Clampitt and Downs 1993, 2). Owing to employees' long tenure in organisations and the network of friendships, employees tend to have extensive face-to-face communication in the work setting. Job rotation may also stimulate the emergence of informal lateral communication networks (Tang et al. 2000, 539).

- *Satisfaction with organisational perspective*

Organisational perspective deals with the broadest kind of information about the organisation as a whole. It includes notification about changes in the organisation,

information about the organisation's financial standing, as well as its overall policies and goals (Clampitt and Downs 1993, 2).

● *Satisfaction with personal feedback*

Personal feedback is concerned with the workers' need to know how they are being judged and how their performance is being appraised (Clampitt and Downs 1993, 2).

To conclude: communication satisfaction is seen by Downs, Hazen, Quiggens and Medley (in Clampitt and Downs 1993, 2) as a multidimensional concept as opposed to a one-dimensional one. This means that employees are not merely satisfied or dissatisfied with communication in general, but can express varying degrees of satisfaction about definite categories or types of communication.

5. Hypotheses

Based on the constructs discussed above, the following hypothesis is proposed:

H₁: There is a significant difference in employees' satisfaction with the communication climate, the relationship with supervisors and subordinates, organisational integration, media quality, horizontal communication, organisational perspective and personal feedback.

Pincus (in Grunig 1992, 554) revised the Downs-Hazen instrument by clustering the constructs into three dimensions of communication satisfaction:

1. *Relational dimension*: subordinate communication, horizontal communication and top management communication.
2. *Informational/relational dimension*: personal feedback, communication climate and supervisor communication.
3. *Informational dimension*: media quality, organisational integration and organisational perspective.

Based on the above-mentioned dimensions, the following hypotheses are proposed:

- H₂*: There is a significant difference in employee satisfaction in the relational dimension, the informational/relational dimension and the informational dimension.
- H₃*: There is a significant difference in the satisfaction of managers and subordinates in the relational dimension.
- H₄*: There is a significant difference in the satisfaction of managers and subordinates in the informational/relational dimension.
- H₅*: There is a significant difference in the satisfaction of managers and subordinates in the informational dimension.

6. Research design and methodology

6.1 Research process

The research process followed in this study is summarised in Table 2.

Table 2: Research strategy, design and methodology

Research approach	Quantitative (Cooper and Schindler 1998).
Research design	• <i>Intrinsic</i> case study (Stake 1995). The case was selected because of the interest in understanding the particular organisation. • It is also an <i>instrumental</i> case study (Stake 1995). The case was selected because of the potential to provide insight into the use of the Downs-Hazen standardised instrument for measuring communication satisfaction (CSQ) in the South African context.
Methodology	Descriptive survey; formal; cross-sectional, presenting a snapshot at one point in time (Cooper and Schindler 1998).
Element (Smith, 1988)	Employee communication satisfaction.
Unit of analysis	Primary: private higher educational institution Secondary: Full-time employees of the private higher educational institution.
Sample size	All full-time employees of the private higher educational institution, including all academic and academic support staff. There are 239 in total: 143 in Division A, 28 in Division B and 64 in Division C.
Sampling method	Census.
Data collection	Electronic self-administered questionnaire.
Measuring instrument	The Downs-Hazen standardised questionnaire (CSQ), employing a five-point Likert scale.
Response rate	97 usable questionnaires.
Data analysis	Cronbach's Alpha to test reliability. Hypothesis testing.

6.2 Downs-Hazen Communication Satisfaction Questionnaire (CSQ)

The rationale for using the CSQ in this study was the following: Hamilton (1987, 112) regards the CSQ as offering an efficient and comprehensive approach to auditing the communication practices of organisations. In a study on the usefulness of the CSQ, Hecht (in Hamilton 1987, 114) concludes that the thoroughness of the construction of the measure is apparent. Crino and White (1981) found that the eight-factor solution is reasonable. They concluded as follows: 'The Communication Satisfaction Questionnaire provides a uniquely theoretical and empirically sound method of gathering information about organisational communication.'

In this research, the CSQ was used as a self-administered measuring instrument. The statements represented eight constructs as developed by Downs and Hazen (1977) and adapted

by the researchers for the South African educational environment. These constructs were communication climate, supervisory communication, organisational integration, media quality, organisational perspective, horizontal communication, subordinate communication and personal feedback.

7. Findings and conclusions: research objective 1

To determine the communication satisfaction of employees at the private higher education institution.

7.1 Findings based on descriptive statistics

As a first step in analysing the data, descriptive statistics have been calculated to summarise the characteristics of the data. Section A consisted of six questions about the demographics of the respondents, namely 1. gender, 2. physical location of campus, 3. type of position held, 4. full-time or part-time, 5. qualifications, 6. managers or subordinates (see Table 3).

Table 3: Demographic data

Demographics	Percentage (%)
1. Gender	
Male	35
Female	65
2. Physical location of campus	
A	67
B	11
C	22
3. Type of position held	
Academic employees	49
Support employees	51
4. Nature of registration	
Full time	85
Part time	15
5. Qualifications	
Grade 12 or lower	23
Three year diploma/degree	23
Four year degree/honours	35
Masters	14
Doctorate	5
6. Management/Subordinates	
Managers	43
Subordinates	57

Table 4: Descriptive statistics of the eight communication satisfaction constructs, per item

[illegible]

[illegible]

Section B consisted of 26 statements that respondents rated in terms of how satisfied they were with the institution's communication. A five-point numerical scale was used with verbal anchors as labels for the extreme points. Table 4 is a summary of the descriptive statistics per construct and per item.

In summary, the findings were the following (based on a 5-point numerical scale):

- The majority of the employees (3.27) are *neutral* towards the communication climate at the private higher education institution.
- The majority of the employees (3.85) are *satisfied* with their relationship with their superiors.
- The majority of the employees (3.34) are *neutral* towards the organisational integration at the private higher education institution.
- The majority of the employees (3.44) are *neutral* towards the media quality at the private higher education institution.
- The majority of the employees (3.35) are *neutral* towards the horizontal communication at the private higher education institution.
- The majority of the employees (3.17) are *neutral* towards the corporate perspective at the private higher education institution.
- The majority of managers (3.44) are *neutral* towards their relationship with their subordinates at the private higher education institution.
- The majority of the employees (3.31) are *neutral* towards the personal feedback at the private higher education institution.

7.2 Findings based on inferential statistics

7.2.1 Reliability

The Downs-Hazen standardised questionnaire used in this research has been employed in over 50 organisations abroad, including several corporates (Hamilton 1987, 113). However, since the questionnaire has been adapted to South African conditions, a Cronbach's alpha coefficient was calculated on each of the eight constructs in order to confirm their reliability in the local context. It was found to be satisfactory (see Table 5 below).

Table 5: Cronbach's alpha coefficient of the eight communication satisfaction constructs

Construct	Cronbach alpha coefficient
Horizontal communication	0.766
Relationship with subordinates	0.907
Communication climate	0.843
Relationship with superiors	0.925
Personal feedback	0.827
Organisational integration	0.793
Media quality	0.9
Corporate perspective	0.821

A Cronbach's alpha coefficient calculated on the three dimensions was also found to be satisfactory (see Table 6 below).

Table 6: Cronbach's alpha coefficient of the three communication satisfaction dimensions

Dimension	Cronbach alpha coefficient
Relational	0.83
Informational/relational	0.932
Informational	0.906

7.2.2 Hypotheses testing

As two or more than two groups at a time have been compared with each other with an ordinal data set, a Friedman two-way ANOVA test has been used to test H1 and H2.

Hypothesis 1

H1 tested whether employee satisfaction is higher with one construct than another, for communication climate, relationship with superiors, organisational integration, media quality, horizontal communication, organisational perspective and personal feedback. (The construct *relationship with subordinates* has not been subjected to this test as only the managers completed this section and it can therefore not be compared to the other constructs where all employees completed it – see Table 7 below).

Table 7: Comparison of employee satisfaction in terms of seven of the communication satisfaction constructs (excluding relationship with subordinates)

Construct	Mean	Standard deviation	P-value
Communication climate	3.192	0.731	0.0000
Relationship with superior	3.691	0.875	
Organisational integration	3.344	0.695	
Media quality	3.417	0.762	
Horizontal communication	3.350	0.618	
Organisational perspective	3.083	0.882	
Personal feedback	3.281	0.768	

A significant difference has been found among the seven constructs (Friedman ANOVA; $p < 0.05$). For this reason, further tests have been carried out to determine between which constructs this significant difference exists (see Table 8).

Table 8: Z-statistics of the significant differences found between the communication satisfaction constructs

Constructs	Z-statistics
Communication climate and relationship with supervisors	5.54
Relationship with supervisors and organisational integration	4.34
Relationship with supervisors and horizontal communication	3.93
Relationship with supervisors and organisational perspective	6.91
Relationship with supervisors and personal feedback	4.98
Media quality and organisational perspective	4.38

The null hypothesis is rejected if the Z-statistic is larger than the critical value, which is 3.04 for an overall alpha of 0.05 (the latter being the desired overall significance level).

Based on Tables 7 and 8, it is *firstly* concluded that the satisfaction of employees is significantly higher for their relationship with their superiors than for communication climate, organisational integration, horizontal communication, organisational perspective and personal feedback. It is surmised that employees might be more satisfied with their relationship with their superiors because the PHEI relied mostly on supervisory communication to achieve organisational effectiveness (and neglected the other communication satisfaction constructs investigated). It seems logical that if the institution's managers had made an effort also to address the other communication satisfaction constructs in their strategies and adjusted their employee communication, employees might have been more satisfied with these constructs as well.

Secondly, the satisfaction of employees is significantly higher for media quality than for organisational perspective. The reason for this might be that even though employees are not necessarily satisfied with meetings being well organised and written directives being clear and concise, meetings were still being held and employees did receive (some) written directives. However, little was communicated about changes in the organisation, its financial standing or its overall policies and goals.

Hypothesis 2

H2 tested whether employee satisfaction is higher for the constructs respectively forming the relational dimension, the informational/relational dimension and the informational dimension. As can be seen in Table 9, there is no significant difference in employee satisfaction among the three dimensions (Friedman ANOVA; $p > 0.05$).

Table 9: Comparison of employee satisfaction in terms of the three communication satisfaction dimensions

Dimension	Mean	Standard deviation	p-value
Relational	3.315	0.627	0.208
Informational/relational	3.453	0.772	
Informational	3.325	0.680	

Hypotheses 3 to 5

A two-way analysis of variance tested H3 to H5 to determine whether the satisfaction of managers is higher than that of subordinates for the relational dimension, the informational/relational dimension and the informational dimension. Based on Table 10 below, it can be concluded that no significant difference exists between the satisfaction of managers and subordinates in terms of the three dimensions (two-way analysis of variance; $p > 0.05$).

Table 10: Comparison of managers and subordinates in terms of the communication satisfaction dimensions

Dimension	Managers		Subordinates		p-value
	Mean	Standard deviation	Mean	Standard deviation	
H3: Relational	3.5	0.521	3.207	0.631	0.323
H4: Informational/relational	3.7	0.727	3.333	0.790	0.363
H5: Informational	3.6	0.685	3.147	0.619	0.285

7.3 Discussion of findings and conclusions for research objective 1

The data analysis of the study on the Private higher education institution indicates that there is no significant difference between managers and subordinates for the eight communication satisfaction constructs or the three communication satisfaction dimensions. Furthermore, employees are neutral about seven of the eight communication satisfaction constructs.

The exception is their relationship with superiors, with which they are satisfied. Employees are therefore more satisfied with their relationship with superiors than with the communication climate, organisational integration, media quality, horizontal communication, organisational perspective and the personal feedback they receive. It can thus be said that employees are more satisfied with their respective supervisors listening to them;

offering guidance for solving job-related problems; trusting them; and being open to ideas than with the psychological atmosphere in the organisation; the information they receive about the immediate work environment (i.e. departmental plans, the requirements of their jobs and some personnel news); their meetings and written directives; the horizontal and informal communication being accurate and free flowing; information about the organisation as a whole (i.e. notification about changes, the financial standing, and overall policies and goals); and how they are being judged and appraised.

Employees are also more satisfied with the media quality than with the organisational perspective, and more satisfied with the horizontal communication in the institution than with the organisational perspective. This means that, on the one hand, they are more satisfied with their meetings and written directives than with the information they receive about the organisation as a whole. On the other hand, they are more satisfied with the horizontal and informal communication being accurate and free flowing than with the information they receive about the organisation as a whole.

The implications of these findings for the private higher education institution are that, although employees are satisfied with their relationship with superiors, there is room for improvement for the psychological atmosphere in the organisation; the information employees receive about their immediate work environments, meetings and written directives; horizontal and informal communication being accurate and free flowing; information about the organisation as a whole; and how employees are being judged and appraised.

These findings in the South African environment can be compared to other studies conducted abroad using the CSQ. Downs, Clampitt and Pfeiffer's conclusion after reviewing their 1988 study was that employees were most satisfied with subordinate communication and supervisory communication, while they were least satisfied with personal feedback (Pincus in Grunig 1992, 553). The employees of the PHEI being investigated were also satisfied with their relationship with the supervisors (it being the only construct with which they were satisfied) but neutral towards both their relationship with subordinates as well as the personal feedback they receive.

These findings can be placed in a theoretical context. According to human resource management theory (Gibson and Hodgetts 1989, 45), the way managers communicate is a direct reflection of their philosophy on worker behaviour and motivation. As the relationship with supervisors is the only construct of communication satisfaction with which the employees of the private higher education institution is satisfied, it can be assumed that the managers/supervisors believe that their subordinates are hard working, intelligent, and determined to perform their tasks correctly; that they therefore probably adopt a management communication style that encourages such behaviour, that is loose control, heavy delegation of authority, and a reward system designed to promote initiative, creativity and high job performance.

Based on the Excellence Theory, it is also concluded that managers/supervisors at the PHEI use some degree of two-way symmetrical communication since employees are satisfied with the relationship with their supervisors, i.e. that information flows freely between them. However, the fact that employees feel neutral towards the communication climate and personal feedback indicates that more two-way communication could be used in order that employees may feel that their inputs are valued and experience the atmosphere as warm, tolerant, open and participative.

7.4 Limitations of the private higher education institution study

The communication satisfaction of employees was tested in only one private higher education institution in South Africa (and not in other types of organisations or industries, or on a national scale).

During the process of data collection, one section of the private higher education institution went through a process of restructuring and merged with another private higher education institution. Informal discussions with several employees of the institution, to find reasons for the low response rate, indicated that they were reluctant to complete the questionnaires during this uncertain time. They also did not feel comfortable being completely open and honest in their responses.

7.5 Recommendations for the private higher education institution

It is recommended that the finding that employees are more satisfied with certain areas of management communication than with others, be investigated further. The corporate communication division could possibly assist senior management in this, advising on the development of problem-solving strategies for these issues and on implementing internal communication programmes to assist in addressing the problem areas. However, management communication remains the responsibility of the institution's managers. It is usually not internal communication programmes that motivate employees and make them more productive, but two-way communication with their immediate supervisors and members of senior management.

Top management needs to understand what excellent management communication is and demand it from all managers. Managers and supervisors should become accountable for good management communication and they should be measured on it during performance appraisal. Management must be sensitised to the impact of internal, but especially management communication on profits, productivity, cost deduction and reduced employee turnover and absenteeism (O'Connor in Steyn and Groenewald 1996, 5).

Furthermore, top management must realise that symmetrical systems of management communication can be planned by communication consultants or corporate communication divisions, but those systems cannot become fully effective without visible support

and action from the organisation's top management team. They have a large role to play in the attainment of employee communication satisfaction in their institution.

8. Findings and conclusions: research objective 2

To analyse and compare the use of the Downs-Hazen Communication Satisfaction Questionnaire in previous studies with this study, with a view to evaluating its applicability to, and implementation in, the South African (educational) context.

This section evaluates the Down-Hazen CSQ, based on the following:

- *Firstly*, a comparison of the items used in the CSQ with the items used in this study, explaining the rationale for adaptation or deletion (see Table 11).
- *Secondly*, an analysis of conclusions of previous studies that used the Downs-Hazen CSQ in other countries, as well as conclusions of this study that was conducted in the South African environment (see Table 12).
- *Thirdly*, recommendations for further adaptations of the CSQ as well as further research on communication satisfaction, based on the experience and insight gained by implementation in the South African educational environment.

8.1 A comparison of the original Downs-Hazen CSQ items with the adapted items

In Table 11, the statements used in the original CSQ as well as in this study are presented, explaining the reasons for adaptation or deletion to suit the South African environment.

Table 11 Comparison of the original CSQ items with the items as adapted for the current study

Constructs with original items	Construct with items as adapted for this study	Use of item (or not) in current study, with reasons
Personal feedback		
Information about how my job compares with others	<i>How satisfied are you about...</i> ... information on how your job compares with others.	Yes. 'On' replaced 'about' and full-stops were added throughout.
Information about how I am being judged	... information on how you are being evaluated.	Yes. 'Evaluated' replaced 'judged' to sound less threatening.
Recognition of my efforts	... recognition of your efforts.	Yes.
Reports on how problems in my job are being handled	... feedback on how problems in your job are being handled.	Yes. 'Feedback' replaced 'reports'.
Extent to which my superiors know and understand the problems faced by subordinates		No. Considered similar to previous question.
Corporate perspective		
Information about company policies and goals		No. Item eliminated due to length of questionnaire.
Information about government action affecting my company	... information on government action affecting the PHEI's relations.	Yes. 'Relations' was added as well as the name of the institution in order to personalise the statement.
Information about relations with unions		No. Not considered applicable as no staff member belonged to a union at the time of the study.
Information about company profits and financial standing	... information on the PHEI's profits and financial standing.	Yes. Company name inserted.

Table 11 continued

Constructs with original items	Construct with items as adapted for this study	Use of item (or not) in current study, with reasons
Information about accomplishments and/or failures of the company	. . . information on the accomplishments or failures of the PHEI.	Yes. The term 'and' threatens validity as it implies a double barrelled question. The term 'or' was retained.
Organisational integration		
Information about my progress in my job		No. Item eliminated due to length of questionnaire.
Personnel news	. . . information you receive about personnel news.	Yes. 'Information' inserted.
Information about departmental policies and goals	. . . information on the PHEI's policies and goals.	Yes. 'PHEI' replaced 'departmental'.
Information about the requirements of my job	. . . information on the requirements of your job.	Yes.
Information about employee benefits and pay	. . . information on employee benefits.	Yes. The term 'and pay' was removed (threatens validity).
Relationship with supervisor		
Extent to which my supervisor listens and pays attention to me	. . . your supervisor listening to you.	Yes. Eliminated 'and pays attention to me' as it threatens validity by being a double barrelled question.
Extent to which my supervisor offers guidance for solving job related problems	. . . your supervisor offering guidance for solving job related problems.	Yes.
Extent to which my supervisor trusts me	. . . your supervisor trusting you.	Yes.
Extent to which my supervisor is open to ideas	. . . your supervisor being open to ideas.	Yes.

Table 11 continued

Constructs with original items	Construct with items as adapted for this study	Use of item (or not) in current study, with reasons
Extent to which the amount of supervision given to me is about right		No. Item eliminated due to length of questionnaire.
Communication climate		
Extent to which company communication motivates and stimulates an enthusiasm for meeting its goals		No, item eliminated due to length of questionnaire.
Extent to which the people in my organisation have great ability as communicators	... the people at the PHEI having the ability to communicate	Yes. Item rephrased.
Extent to which the company's communication makes me identify with it or feel a vital part of it	... the PHEI's communication making you identify with the institution.	Yes. Eliminated 'or feel a vital part of it' as it is a double barrelled question, threatening validity.
Extent to which I receive on time the information needed to do my job	... receiving the information needed to do your job on time.	Yes. Item rephrased.
Extent to which conflicts are handled appropriately through proper communication channels	... conflicts being handled appropriately through proper communication channels.	Yes.
Horizontal communication		
Extent to which the grapevine is active in our organisation	... communication received through the grapevine at the PHEI.	Yes. Item rephrased.
Extent to which horizontal communication with other employees is accurate and free-flowing	... horizontal communication with other employees being accurate.	Yes. Eliminated 'and free-flowing' as it threatens validity.
Extent to which communication practices are adaptable to emergencies	... communication practices being adaptable to emergencies.	Yes.

Table 11 continued

Constructs with original items	Construct with items as adapted for this study	Use of item (or not) in current study, with reasons
Extent to which my work group is compatible Extent to which informal communication is active and accurate	. . . the members of your work group being compatible to each other.	Yes. Added 'members' and 'to each other' No. Item eliminated due to length of questionnaire.
Media quality		
Extent to which the company's publications are interesting and helpful Extent to which our meetings are well organised Extent to which written directives and reports are clear and concise Extent to which the attitudes toward communication in the company are basically healthy Extent to which the amount of communication in the company is about right	. . . your meetings being well organised. . . . written reports being clear/concise. . . . the attitudes toward communication at the PHEI being basically healthy. . . . the amount of communication.	No. Item eliminated due to length of questionnaire. Yes. Yes. 'Reports' replaced 'directives'. 'And' was removed. Yes. Name of company was inserted. Yes. Rephrased.
Relationship with subordinates		
Extent to which my subordinates are responsive to downward directive communication Extent to which my subordinates anticipate my needs for information	. . . the extent to which your subordinates are responsive to downward directive communication. . . . the extent to which your subordinates anticipate your needs for information.	Yes. Yes.

In summary, the following adjustments were made to the Downs-Hazen CSQ in order to suit the South African environment and improve the validity of the findings:

- The scale was reduced from a seven-point to a five-point scale to reduce complexity. This was considered necessary because the population consisted of a wide range of respondents with different educational levels.
- The scale was turned around for this study, namely '1' now equalled extremely dissatisfied and '5' extremely satisfied. This was done to ensure that respondents did not associate '1' with referring to a positive statement and '5' to a negative statement, but rather the other way around.
- In many instances, the items were rephrased because of length limitations; to ensure the logical flow of the questionnaire; and to improve the grammar.

8.2 Conclusions of studies that have used the Downs-Hazen CSQ

In Table 12, the most important conclusions of previous studies in other countries as well as this study in South Africa about the use of the Downs-Hazen CSQ are summarised. These conclusions will be evaluated in the following section.

Table 12 Conclusions of previous studies that used the Downs-Hazen CSQ as well as conclusions of this study

	Downs and Hazen	Hecht	Crino and White	Hamilton	Greenbaum, Clampitt, Willihnganz	Present study: Meintjes and Steyn
Date	1977–1988	1978	1981	1987	1988	2002
Nature of CSQ	The original questionnaire (Downs and Hazen 1977) had an additional six questions relative to the outcome variables of job satisfaction and productivity and five questions on demographics. The other versions consist of five items for each of the eight factors, being communication climate, supervisory communication, organisational integration, media quality, co-worker communication, corporate information, personal feedback and subordinate communication (Pincus in Grunig 1992, 553).					In the CSQ adapted for the SA environment (see Table 11), three to four items measure each of the original eight constructs (factors).
Conclusions of previous researchers about the CSQ	The various dimensions of communication satisfaction can provide a barometer of organisational functioning, and the concept of communication satisfaction can be a useful tool in an audit of organisational communication (Hamilton 1987, 114).	Hecht reviewed various instruments used to assess communication satisfaction. His remarks on the communication satisfaction questionnaire were basically positive (Greenbaum, Clampitt and Willihnganz 1988, 114).	For researchers to feel confident about using the instrument, additional information is needed to characterise more carefully the internal consistency and dimensionality of the instrument (Crino and White 1981, 834).	The communication satisfaction questionnaire provides a uniquely theoretical and empirically sound method of gathering information about organisational communication (Hamilton 1987, 114).	It is a short and understandable instrument and has been used in a wide variety of organisations (Greenbaum, Clampitt and Willihnganz 1988, 254).	The communication satisfaction questionnaire was found to be useful in the SA educational environment as it is brief and understandable to respondents. It can thus be used with confidence.

Table 12 continued

	Downs and Hazen	Hecht	Crino and White	Hamilton	Greenbaum, Clampitt, Willihnganz	Present study: Meintjes and Steyn
Date	1977–1988	1978	1981	1987	1988	2002
Validity and reliability	In the development of the CSQ, the authors factor analysed 88 items measuring the satisfaction of employees with different aspects of communication (Pincus in Grunig 1992, 553).	The researchers commented that the thoroughness of the Downs-Hazen satisfaction measure was apparent. They did, however, express concern about consistency reliability and information about validity (Greenbaum, Clampitt and Willihnganz 1988, 253).	They employed a subject pool of 137 first-line supervisors, calculated coefficient alpha and reported high internal consistency reliability ranging from .75 to .86. They concluded that the eight-factor solution was reasonable for construct validity, but expressed concern over high average correlation among subscales.	No comment.	These authors commented on the research of Hecht: Crino and White; Clampitt and Girard; and Pincus. Even though variations of the original questionnaire were used, the factors (constructs) in all the studies were either the same or basically structured along the lines of the original Downs and Hazen research (Greenbaum, Clampitt and Willihnganz 1988, 253).	Cronbach's alpha coefficient calculated on the item set in order to reconfirm the reliability of the questionnaire was found to be satisfactory (see Table 5).

Table 12 continued

	Downs and Hazen	Hecht	Crino and White	Hamilton	Greenbaum, Clampitt, Willhnganz	Present study: Meintjes and Steyn
Date	1977–1988	1978	1981	1987	1988	2002
Applicability of the CSQ to different contexts or cultures	After reviewing the research using this instrument, the authors concluded that the communication satisfaction questionnaire is a useful tool in a wide variety of industries, cultures and with various job classifications (PinCUS in Grunig 1992, 553).	No comment.	No comment.	The instrument has proven useful in a variety of organisational settings and cultures such as a government agency, hospitals and clinics, a university, government, business, urban and rural schools, social services, and a teaching hospital (Hamilton 1987, 127).	A recent investigation of re-search applications of the CSQ found 16 applications of the questionnaire in four journal articles, 11 dissertations and one convention paper (Greenbaum, Clampitt and Willhnganz 1988, 254).	Some adjustments were made to the original list of items (see Table 11) in order for the respondents under investigation to understand and relate to the questions. The reliability of these changes to the items was confirmed by the calculation of Cronbach's alpha coefficient. However, further studies are necessary in different settings/ organisations to confirm these adjustments for the SA environment/initiate further adaptations.

Table 12 continued

	Downs and Hazen	Hecht	Crino and White	Hamilton	Greenbaum, Clampitt, Willihnganz	Present study: Meintjes and Steyn
Date	1977–1988	1978	1981	1987	1988	2002
Recommendations of the various researchers	More theoretical work needs to be done to show if, how, and where there are differences among companies, cultures and job types (Pincus in Grunig 1992, 553).	Internal consistency and reliability for each dimension and validity information as a whole are lacking (Greenbaum, Clampitt and Willihnganz 1988, 114) and therefore should be investigated further.	This questionnaire on satisfaction in communication should continue to be refined. At the time of this study, no reported subscale alpha coefficients and a re-examination of the dimensionality of the instrument have been reported since the publication of the original developmental study in 1977 (Crino and White 1981, 835).	Addition of other questions is encouraged. Changes in the wording of the forty key items would hinder the reliability of the survey. Furthermore, most of the questions have a conceptual bent toward the communication behaviours of others. The survey also does not contain any specific items about interdepartmental communication (Hamilton 1987, 126).	Items concerning inter-departmental communication and top management communication are not within the dimensional structure and the factor validity could be improved (Greenbaum, Clampitt and Willihnganz 1988, 254).	The adapted version of the CSQ as used in the present study can be used as the basis for developing a widely used instrument to test communication satisfaction in the South African educational as well as other (i.e. business) environments. This development can be taken further by incorporating the testing of the relationship between communication satisfaction and other organisational variables found in organisations and/or those unique to the South African environment.

8.3 Critical evaluation of the Downs-Hazen CSQ

In previous research on the use of the Downs-Hazen CSQ (summarised in Table 12), all the studies found the measuring instrument to be useful, short, and understandable – a sound method of gathering information about organisational communication. The validity and reliability of the measure is basically sound, although some were concerned about its consistency/reliability and validity. Overall the eight-factor solution was found to be reasonable, although in some of the other studies a variation of the original measure was used.

All previous researchers commented that the CSQ is a useful tool in a wide variety of industries, cultures and with various job classifications. It has been used in different kinds of organisational settings such as government agencies, hospitals and clinics, universities and businesses. However, all of these studies were conducted in foreign countries. Recommendations were that more theoretical work should be done to show if, how and where there are differences among companies, cultures and job types.

Hamilton (1987, 126) perceived certain shortcomings in the CSQ such as it not containing any specific items about interdepartmental communication or top management communication. Furthermore, he suggested that the measure be further developed in terms of incorporating and testing relationships between communication satisfaction and other organisational variables such as job satisfaction and productivity.

After having adapted and implemented the Downs-Hazen CSQ in the South African (educational) environment, and having analysed and compared its use in previous studies with this one, the authors conclude that the instrument has still proved useful in this study even though it was first developed almost 30 years ago. After calculating the Cronbach's alpha coefficient on the whole item set as well as on the individual constructs, it was found that adjustments to the items did not affect the reliability of the questionnaire in this specific research (as some previous researchers predicted).

According to the authors, an advantage of the Downs-Hazen instrument (CSQ) is that it addresses a wide range of communication concepts still relevant in modern day organisations, namely communication climate, supervisor communication, organisational integration, media quality, horizontal communication, corporate perspective, subordinate communication and personal feedback. There is, however, an important concept lacking, in addition to those pointed out by Hamilton (1987), namely the chief executive's communication role.

Furthermore, more emphasis could be placed on the different communication needs of respondents in multicultural countries like South Africa, taking their educational and linguistic disadvantages into consideration. Since a particular industry often influences the way in which communication takes place internally in an organisation (e.g., the gold mines in South Africa), this aspect should also be explored.

Besides more theoretical work and empirical research on the differences among South African companies, cultures and job types, questions on management communication should be added to the CSQ about important local issues. Transformation, black economic empowerment and affirmative action all affect workplace communication. In the process of adding such measurement questions, the internal consistency should continue to receive attention. Information on measures of reliability and validity should, in fact, always be provided.

It is also recommended that a qualitative study precede the use of the Downs-Hazen CSQ in order to capture any particular management communication problem areas in specific organisations or industries.

In general, it is suggested that further research be conducted to measure the effectiveness of internal communication programmes and initiatives, as well as the attitudes and satisfaction of management and employees. This will enable organisations to determine whether their strategies and actions are effective and efficient and, ultimately, whether they enhance the communication satisfaction levels of their employees and indirectly contribute to their organisation's bottom line.

9. Conclusion

More studies are needed to refine a reliable instrument for measuring communication satisfaction in the multicultural South African environment. In a country rich in diversity, this poses a challenge to South African communication researchers.

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