AN INVESTIGATION OF THE IMPACT THAT THE NATURE OF ADMINISTRATION HAS ON A PORT'S COMPETITIVENESS: DURBAN, SOUTH AFRICA.

By

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ABSTRACT

The challenges of the 21st century have influenced the transportation of growing cargo volumes at ports that intercept major shipping routes along the coastline of Southern Africa (McCan, 2003:32-34). In view of these challenges, rivalry between ports along the coast of Southern Africa has increased (Nevin, 1998:27-28). Empirical research focuses on the financial management, management processes and competitive attributes at the port of Durban, South Africa. The primary objective investigates the impact that the nature of port administration had on the competitiveness of the port. Underlying objectives showed the nature of port administration, identified the status of the competitive features and the relationship between the nature of administration and these competitive attributes at the port. The perceptions, collected from 258 respondents, indicate that costs, innovation and turnaround time rated as the most important competitive attributes at the port. As a final point to this investigation, recommendations to strengthen the port's competitive advantage compared to rival ports along the east coast of Southern Africa are set out.

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TERMINOLOGY

Administration means "the organization and running of a business or system" (Concise Oxford English Dictionary, 2004:17).

Berth is "a ship's allotted place at a wharf or dock" (Concise Oxford English Dictionary, 2004:127).

Cargo is "goods carried commercially on a ship, aircraft, or truck" (Concise Oxford English Dictionary, 2004:213).

Channel is "a navigable passage in a stretch of water otherwise unsafe for vessels" (Concise Oxford English Dictionary, 2004:236).

Container is "a large standard sized metal box for the transport of goods by road, rail, sea, or air" (Concise Oxford English Dictionary, 2004:307).

Facility is a "building, service, or piece of equipment provided for a particular purpose" (Concise Oxford English Dictionary, 2004:509).

Finances are "the monetary measures and affairs of a state, organisation, or person" (Concise Oxford English Dictionary, 2004:532).

Manage means to "administer and regulate (resources under one's control)" (Concise Oxford English Dictionary, 2004:865).

Master is "the captain of a merchant ship" (Concise Oxford English Dictionary, 2004:879).

Pilot is "a person with expert local knowledge qualified to take charge of a ship entering or leaving harbour" (Concise Oxford English Dictionary, 2004:1087).

Port is "a town or city with a harbour or access to navigable water where ships load or unload" (Concise Oxford English Dictionary, 2004:1118).

Stakeholder is "a person with an interest or concern in something" (Concise Oxford English Dictionary, 2004:1404).

Transport is to "take or carry from one place to another by means of a vehicle, aircraft, or ship" (Concise Oxford English Dictionary, 2004:1533).

Vessel is "a ship or large boat" (Concise Oxford English Dictionary, 2004:1608). **Waterfront** is "a port of a town or city alongside a body of water" (Concise Oxford English Dictionary, 2004:1631).

ACRONYMS

C ² :	Tabulated chi-square value
DCART:	Durban Car Terminal
DCONT:	Durban Container Terminal
DIT:	Durban Institute of Technology
NPA:	National Ports Authority of South Africa
OTB:	Ocean Terminal Building
PAs:	Port Administrators
PORT EXCO:	Port Executive Committee
Q:	Question
SAP:	Systems Application Programme
SAPO:	South African Port Operations
STCW:	Standards of Training, Certification and Watch Keeping of 1995
T:	Chi-square statistic
VHF:	Very High Frequency
VMs:	Vessel Masters
VTS:	Vessel Traffic Separation
WFs:	Waterfront Facilitators

CHAPTER 1

INTRODUCTION

1.1. BACKGROUND

1.1.1. Globalisation of sea transportation

In the past, the bulk of the world's sea trade was centralised across the Mediterranean Sea and along the coastline of Western Europe. However, the introduction of improved vessel design and a growing necessity for efficient large-scale sea transportation has allowed competitive ports around the world to flourish. Supporting this, Dreikorn and Zilbershtein (2005:189-195) report that globalisation has had a significant influence on the transportation of cargo Dreikorn and Zilbershtein also claim that economic, political and at sea. technological trends would determine future cargo volumes at ports across the It has been suggested that these tendencies have prompted port world. stakeholders to become more selective about which ports to use when servicing these major shipping routes (Doi, Itoh and Tiwari, 2003:23). The global challenges of the 21st century have also had a notable influence on the transportation of growing cargo volumes at focal ports, which intercept main shipping routes along the coastline of Southern Africa (McCan, 2003:32-34).

1.1.2. Port of Durban, South Africa

Thomas (1999:37-40) maintains that a port which is geographically close to key shipping routes and which also has hub status would be more competitive than rival ports that are not better positioned. A case in point is the strategic port of Durban founded in 1839, which is conveniently situated in close proximity to chief shipping ways, which run adjacent to the east coast of Southern Africa. It is maintained that this port handles approximately 65% of South Africa's container traffic (Port of Durban, 2003:22). Positioned along the east coast of

Southern Africa, the port with its hub status also serves the exports and imports of the highly industrialised region of Gauteng. The efficient road and rail infrastructure from the coast to the inland regions further ensures that port stakeholders can easily and quickly transport cargo from the port of Durban to Botswana, Malawi, Zaire, and Zimbabwe via Gauteng (Nevin, 2001:33). In view of this, efficient port administration not only affects the logistical chain within the transport system, but also influences the economic development of the entire Southern African region (Jackson and Maloni, 2005b:16-36).

1.1.3. Logistical chain

In spite of the important role of shipping in global trade and the associated economic development (Hoffman, et al., 2003:199), it has been suggested that relatively little research has being completed to improve the competitiveness of ports (Talley, 2000:937; Basso, et al., 2002:419). Future studies are needed, to develop the marine services, which are offered at a port where better marine services would improve the efficiency of port operations (Jackson and Maloni, Contrary to the benefit of reliable port operations, port 2005b:16-36). stakeholders within the maritime industry do not focus sufficiently on their longterm goals (Dreikorn and Zilbershtein, 2005:189-195). Dreikorn and Zilbershtein believe that synergy between the stakeholders is needed to improve the lasting development of ports. Taking this into consideration, additional investigations and teamwork would enhance the flow of cargo within ports by solving the predicted traffic congestion problems during the next decade (Jackson and Maloni, 2005a:1-22). Port stakeholders are more concerned with every day port operations and figures than the long-term interests of port stakeholders (Doost, 1989:38; Mongelluzzo, 2004b:15). It is against this background, that the reasons for an empirical research are shown.

The rationale and motivation for the investigation precedes a set out of the research objective, supported by the underlying objectives and the hypothesis of the empirical research. The background to port administration is examined

and it is found to be twofold, namely financial management and management processes. In addition, the background of port competitiveness is covered. A layout of research design is provided where the study type, measuring instrument, target population, sample selection, sample size and data analysis is highlighted. The structure of the research report is covered and this includes the introduction, literature review, research methodology, field study, interpretation and the conclusion.

1.2. RATIONALE AND MOTIVATION

1.2.1. Rationale

The empirical research examined the influence that the nature of administration has on port competitiveness. It is expected that the nature of port administration reflects the impact of constantly improving technology, deregulation, globalisation, environmental shocks and economic fluctuations (Dreikorn and Zilbershtein, 2005:189-195). Whilst these trends might be radical and swift, Port Administrators (PAs) need to forecast correctly and make proper decisions to allow for the maximisation of likely opportunities whilst restricting the influence of possible threats. It is held that efficient port administration would improve the port of Durban's competitiveness amongst rival ports along the east coast of Southern Africa (Nevin, 2001:33).

1.2.2. Motivation

Notwithstanding the challenges, it is maintained that PAs have to ensure that port competitiveness satisfies the needs of port stakeholders who handle the flow of cargo during port operations (Chang, 2006a:106-112). Innovative cargo handling activities would attract greater cargo volumes and ensure benefits to port stakeholders whilst at the same time improving the logistical chain within the region (Chang, 2006b:110; Leach, 2005c:1). With these benefits, ports that have good port administration would become more competitive (Walker, 2005:14). The latter provides an incentive to find new ways of administrating a

port with the motive of improving its competitiveness between rival ports (Cooke, 2002a:28-32).

1.3. RESEARCH OBJECTIVE

The primary objective of this research was to investigate the impact of the nature of port administration on competitiveness at the port of Durban, South Africa. The research findings would be disseminated to port stakeholders in the form of a report.

1.3.1. Underlying objectives

The first underlying objective was to establish the nature of port administration as determined by financial management and management processes.

Supporting the research objective, the second underlying objective was to identify and examine the status of competitive attributes, which affected the behavioural characteristics, port capabilities and port operations.

The third underlying objective was to analyse the relationship between the nature of administration and the competitive attributes at the port of Durban.

1.3.2. Hypothesis

It was hypothesised that the nature of administration would have a significant impact on competitiveness at the port of Durban.

1.4. PORT ADMINISTRATION - BACKGROUND

It is maintained that the intense rivalry that already exists amongst ports has prompted the development of new methods to improve the competitiveness of ports around the world (Chang, 2006b:110). For instance, PAs need to have a good understanding of financial management activities at their port because financial management plays a major role in port efficiency (Gallagher, 2004:25; Leach, 2005a:1).

1.4.1. Financial management

Contrary to the key role of financial management, the finances within the maritime industry are often mismanaged as PAs often disregard the importance of financial management during their daily port operations (McConville, 2001:1). For example, administrators have to be more aware that port related charges make up most of the voyage costs so it is important to keep these charges realistic (Stopford, 2000:170).

Taking the significance of financial management into consideration it is important that administrators have a good understanding of economic systems in South Africa (Correia, et al., 2003:1-6). The management processes are also crucial to achieving the organisation's goals (Coulter and Robbins, 1999:11).

1.4.2. Management processes

The management of any company includes various important functions such as planning, organising, leading and controlling which would influence goal attainment within an organisation (Coulter and Robbin, 1999:12). It is maintained that management processes are crucial to the successful handling of cargo volumes around the world (Dreikorn and Zilbershtein, 2005:189-195).

It is held that port stakeholders are responsible for the sound management of cargo handling activities at their respective ports (Jackson and Maloni, 2005b:16-36; Jones, 2001:38) as part of their management functions. For example, good management processes should be encouraged between all stakeholders when solving the congestion problems at ports around the world (Jackson and Maloni, 2005a:1-22). Gallagher (2004:25) suggests steps along these lines are being taken to enhance the management processes at North

American ports such as the ports of Los Angeles and Long Beach. He feels that these steps to improve management processes would reduce the problems in the transportation of cargo during port operations. In the same way, Chang (2006a:106-112) feels that the management of port operations has been enhanced at Taiwanese ports. He goes on to say that, these properly managed ports are now more competitive than their rival ports.

The functions of management have a distinct impact on the cargo handling activities at the ports. It is, however, important to examine the role of human resource management.

1.4.2.1. Human resource management

Labour quality against port charges

It has been suggested that greater emphasis needs to be placed on the hiring of properly skilled port employees to be used during these cargo handling operations (Jackson and Maloni, 2005b:16-36). The global trend of hiring lowcost labour to handle cargo during port operations often results in poorly skilled and incompetent employees being used to do these activities (Wang, 2000:23). A White Paper on the National Ports Policy (South Africa. Department of Transport 2002:15) supports this and reveals that a large number of port employees are unskilled and illiterate. Gallagher (2004:25) feels that the selection of unsuitable employees would hamper the effective transportation of cargo. He maintains further that unsuitable employees would be less able to handle cargo flows efficiently than is the case where the labour force is skilled or semi-skilled. Workers should be appointed according to their personal skills and demographic profiles matching a particular job description (Treven, 2006:120-125).

Decision-making abilities

Gouilielmos (1997:16) feels that better decision-making occurs by using suitably trained PAs during port operations. Coulter and Robbins (1999:204) expand this and claim that administrators make decisions based on their personal judgement under the prevailing conditions. A similar study by Wang (2000:23) indicates that arrogance, inadequate ergonomics and poor interaction amongst employees reduce decision-making. Gouilielmos (1997:16) supports this and warns that poor decision-making occurs when humans are distressed, confused or unable to communicate. It is maintained that gender would also influence the nature of administration as females mainly favour an autonomous atmosphere where they could share information with other team members, whilst males are usually domineering and prefer bureaucratic authorisation (Coulter and Robbins, 1999:541).

Needs and motivation of port employees

It is held that employees who are empowered with greater control (Coulter and Robbins, 1999:491) would produce better quality work. Employees would also be better motivated by properly suiting them to their jobs, using goals, reward systems or financial incentives in the work place (Coulter and Robbins, 1999:509).

1.4.2.2. Marketing management

Similarly, the needs of customers would also be satisfied when marketing an organisation (David, 2001:137). Brazilian ports are marketing themselves more than ever, in an attempt to secure the large cargo volumes, which are being exported from that region (Luxner, 2004a:30-34). The marketing techniques used at the port of Hamburg have contributed towards its recent handling of increased cargo volumes (Barnard, 2003:21-23). In these attempts to market ports, PAs should acknowledge their societal responsibility when they market further business initiatives, other than cargo handling operations, within their particular port (Yarnell, 1999:343).

1.4.2.3. Social Responsibility

Over and above the role of marketing itself and its products, an organisation has a moral obligation to be socially responsible towards its surrounding communities (Jones, 2001:153). For example, port stakeholders should consider the negative influence of pollution on the environment surrounding the port (Jackson and Maloni, 2005b:16-36). PAs have to consider that surrounding communities would favour freedom from noise and low pollution emissions during port operations (Mongelluzzo, 2005a:1).

1.5. PORT COMPETITIVENESS - BACKGROUND

Considering that large-scale vessels have to call at fewer ports, there is now intense rivalry between ports to retain their share of profitable cargo volumes (Gray and Panayides, 1999:11). Bearing this in mind, new methods to improve the efficient flow of increasingly greater cargo volumes at ports would depend upon the port's behavioural characteristics, capabilities and operations and how they influence its competitive attributes.

1.5.1. Behavioural characteristics

It has been suggested that the level of innovation within an organisation would determine its competitiveness amongst its rivals (Jones, 2001:127). The simplest solution to port congestion would be to move idle cargo volumes inland. However, port stakeholders might rather be encouraged to develop fresh ideas and more efficient day-to-day working methods, when challenged with traffic bottlenecks during port operations (Mongelluzzo, 2004b:15).

In port operations, PAs should not ignore the impact of globalisation on successful business relationships within the port environment (Robinson, 2002:244). Therefore, success depends upon trustworthy business relationships amongst port stakeholders (Notteboom, 2002:257).

1.5.2. Port capabilities

One method of improving a port's reputation would be by enhancing the characteristics and serviceability of its infrastructure (Todd, 2003:22). Poorly administered ports with unsuitable port infrastructure are losing cargo volumes to more competitively operated ports (Mongelluzzo, 2005e:16-18). In spite of the need for suitable port infrastructure, the South African government is not ensuring that its ports are equipped to meet the demands of port operations (Peat, 2005a:2).

1.5.3. Port operations

It is held that successful operations also play a key role in a port's overall competitiveness amongst rival ports (Jackson and Maloni, 2005b:16-36). The White Paper based on the National Port Policy (South Africa. Department of Transport 2002:1409) shows that ports could be competitive if the port stakeholders are economical and dependable during port operations. Contracting specific tasks to various specialist organisations could improve the administration at a port (Notteboom, 2002:257).

1.6. RESEARCH DESIGN

1.6.1. Study type

A qualitative study type was used to ensure that the respondents were able to provide appropriate data. It was important that the data reflect their opinions, knowledge and judgement of the impact that the nature of administration has on competitive attributes at the port.

1.6.2. Measuring instrument

Survey forms were designed to establish the demographics of the respondents as well as the status of competitive attributes rated by them in order of importance. They also identified potential relationships between the nature of

administration and the competitive attributes at the port. Only respondents who worked at the port during the field study were asked to complete these survey forms.

1.6.3. Target population

The target population comprised Vessel Masters (VMs) (751), PAs (520) and Waterfront Facilitators (WFs) (60) at the port of Durban. This target population formed the basis of the sample selection.

1.6.4. Sample selection

An accidental sampling technique was the best method of gathering the opinions and ratings of survey participants. This was so because of the nature of shipping, where it is often a challenge to forecast when vessels would arrive alongside at the port of Durban. Even once alongside, the work commitments of VMs had an influence on their availability to complete the allocated survey questionnaire. In addition, PAs were not always available to attend prearranged interviews due to the unpredictable nature of their day-to-day port operations. The availability of WFs was also dependent on how busy they were as this was determined by the nature of their service delivery to patrons. The availability of these respondents influenced the sample size that was achieved.

1.6.5. Sample size

A sample size of at least 10% of the population was planned. This sample size was increased, as it was sometimes possible to interview more respondents than anticipated due to their eagerness to participate in this research. These extra responses were encouraged as they enhanced the quality of the research findings and effects the statistical accuracy and variances. In all three samples, the actual number of respondents was greater than the minimum 10% of the sample size that was envisaged. Data collected from 258

respondents [VMs (89), PAs (124) and WFs (45)] formed the focus of analysis and subsequent interpretation of the research findings.

1.6.6. Data analysis and interpretation

Chi-square analysis of the information collected from respondents established if significant relationships existed. Illustrations also support those cross tabulations that were significant.

1.7. STRUCTURE OF RESEARCH REPORT

The report is organised as follows:

1.7.1. Chapter One: Introduction

The background of the study is covered, the rationale and motivation is established, the problem formulated and the research objectives identified in this section. The research design is also outlined. In addition, the structure of the rest of the study is set out.

1.7.2. Chapter Two: Literature review

The literature review gives an overview of the nature of the administration at the port. Such as the management of port resources and the influence of financial management over the cash flows at the port. It also includes a discussion of the increasing rivalry amongst competitive ports.

1.7.3. Chapter Three: Research methodology

The research design made the best use of prevailing conditions and circumstances available at the port of Durban. The population, sample selection and the subsequent sample size indicated the availability of respondents during the survey phase. Data collected from these respondents formed the basis of the research findings that comprised primary data supported by secondary data. The primary data included the rating of the

status of the competitive attributes and identified relationships between the nature of administration and these competitive attributes at the port. Secondary data explained the demographics of respondents. In addition, a pilot study confirmed the feasibility of the field study to determine the significance of the port's financial management and management processes, the identification of the most common competitive attributes at the port, the availability of respondents during the field study and the appropriateness of the survey questionnaires. For easy reference, questionnaires for VMs, PAs and WFs are attached as Appendices A, B and C.

1.7.4. Chapter Four: Field study

During the field study, which was completed between 01 July 2005 and 30 August 2005 at the port of Durban, it was possible to determine the diverse nature of participating VMs, PAs and WFs. The communication methods were also changed to suit the respondents at the port. Research findings and appropriate graphs record the opinions of the respondents. These results are in Appendices F, G and H for VMs, PAs and WFs respectively. A full count of the research findings is on a CD-R disk at Appendix I.

1.7.5. Chapter Five: Analysis and interpretation

Research findings were analysed and interpreted using descriptive statistics, frequency analysis and cross tabulations. Chi-square analysis was used to determine if a pattern exists between selected variables and to establish the most important variables, which have a significant impact on findings. For easy reference, tabulations of these analyses are in Appendix J. The ecological validity of the research is strong as the findings could be generalised to other similar ports along the east coast of Southern Africa.

1.7.6. Chapter Six: Conclusions

The research objective of this research is revisited. The hypothesis of the research is also commented on. In conclusion, areas for further research are suggested.

1.8. CONCLUSION

The study introduces the importance of ports within the economic development of a region. This research covered financial management as determined by adopting cost-cutting measures and establishing positive cash flows at the port. Emphasis was also on general management processes including innovation and turnaround time during port operations.

A preliminary review of literature also indicates that the role of port administrators and their involvement in financial management of a port have an influence on the rivalry between ports and their competitiveness. The ensuing examination identified that the nature of its administration such as financial management and management processes generally affects port competitiveness at the port of Durban.

There is a strong indication that the efficient flow of increasingly greater cargo volumes at ports depends upon the port behavioural characteristics (innovation and reputation), capabilities (infrastructure, physical characteristics and training) and operations (costs, quality and turnaround times) on competitive attributes. These matters are the focus of the literature review.

CHAPTER 2

LITERATURE REVIEW

2.1. INTRODUCTION

The primary objective of the research was to establish the impact of port administration on selected competitive attributes at the port of Durban. It was held that the nature of administration would have a major impact on the port's competitiveness. Consequently, the importance of port competitiveness, management of resources, effect of financial management and the rivalry, which exists between ports, has been presented in this overview.

The major role that ports now play in the global sea transportation of everincreasing cargo volumes covers the initial focus on ports in general and then the importance of the port of Durban in relation to the economic development of South Africa. The discussion continues with the management processes used during port operations with particular attention to costs, innovation, physical characteristics, quality, reputation, training and finally turnaround time whilst managing cargo at the port. An overview of the importance and the value of financial management during port operations describe the reason for investment, cost of port infrastructure and need for deepwater ports follows.

2.2. SIGNIFICANCE OF PORT COMPETITIVENESS

Chang (2006b:110) and Luxner (2006:20-22) both claim that competitive ports would influence the economic growth of the region in which they are situated. For example, the recent trade agreements between Asia and North America have resulted in greater cargo volumes now being handled at competitive ports in this area (Jackson and Maloni, 2005b:16-36). Efficient port operations have also improved the turnaround time of cargo at competitive Taiwanese ports and enhanced the economic well-being of that island (Chang, 2006b:110). Nevin

(2001:33) feels the recent plan to upgrade the port of Durban would drop transportation costs and attract extra cargo volumes to the vicinity. He goes on to say that, this increased trade would assist the economic development of South Africa.

It has been suggested that there has being a notable increase in the role of competitive ports in dealing with increasing large-scale cargo volumes (McGowan, 2005:167-185). For example, Luxner (2006:20-22) feels that the South African port system has become critical, because most export cargo is transported by sea from this region. He also predicts that by 2008, the considerably larger cargo volumes handled at the port of Durban and the port of Ngqura would have a favourable effect upon South Africa's economic development.

2.3. THE MANAGEMENT OF RESOURCES

It is maintained that a port's competitiveness would be improved by making better use of the resources that are available (Daniels, Rosenbaum and Rubin, 1997:22). For example, economical methods have to be used during port operations (Talley, 2000:937).

2.3.1. Port charges

2.3.1.1. Less costly port operations

It is held that the competitiveness of a port would be improved by lowering charges during efficient port operations (Doi, Itoh and Tiwari, 2003:23; Luxner, 2006:20-22; Nevin, 1998:27-28). For example, economical port operations and the reduction of charges are needed to cope with the increasing cargo volumes being imported from China (Doi, Itoh and Tiwari, 2003:23). The cutting of transport overheads is another method of improving the efficiency of a port (Hoffman, et al. 2003:199). On the same theme, Talley (2000:937) mentions that port stakeholders are looking for better ways to drop their expenses during

port operations. He further suggests that the sea transportation of cargo around the world has become less costly as large-size vessels now called at fewer ports to stow or discharge their cargo. In South Africa, the imminent arrival of the bigger vessels at the port of Ngqura would reduce port charges at South African ports and make the overall charge of transporting cargo by sea less expensive than before (Luxner, 2006:20-22).

The efforts to reduce the charges of handling cargo would contribute to improving the competitiveness at South African ports such as the port of Durban (Nevin, 2001:33). The combination of fewer but better skilled employees and greater use of technological advances could be used to drop the charges of handling cargo and improve productivity during port operations (Ward, 2004:43). For instance, improved cohesion amongst port stakeholders has shortened turnaround times, reduced traffic congestion and created economical port operations at the port of New York and the port of New Jersey (Wilner, 1998:10). Relating to the above-mentioned, greater teamwork between port stakeholders should be encouraged during port operations (Mongelluzzo, 2005d:1).

2.3.1.2. Synergy amongst port stakeholders

It is maintained that an increase in teamwork between port stakeholders would enhance the flow of cargo through ports and increase port competitiveness (Dreikorn and Zilbershtein, 2005:189-195; Mongelluzzo, 2003:14-16; Gallagher. 2004:25). Mongelluzzo (2005d:1) maintains that the competitiveness of a port would be improved by streamlining port operations. Ports could also become more competitive by integrating the activities and technologies of port stakeholders (Wilner, 1998:10). For example, greater cooperation amongst port stakeholders during port operations has already improved efficiency and productivity at North American ports (Jackson and Maloni, 2005a:1-22).

Unfortunately, the diverse nature of these stakeholders may make it difficult to promote joint-cooperation amongst them (Dreikorn and Zilbershtein, 2005:189-195). For synergy to take place there may be some participants who would have to sacrifice financially and this could understandably meet with resistance (Mongelluzzo, 2003:14-16). To make matters worse, these stakeholders often operate individually and not jointly towards a common goal (Gallagher, 2004:25). Another way of improving the competitiveness of a port is by using fresh ideas to speed up the turnaround time of cargo handling actions (Leach, 2005b:1).

2.3.2. Innovative port administration

It has been suggested that greater innovation would improve the flow of cargo and cut turnaround times during port operations (Cooke, 2002b:39; Gallagher, 2004:25; Jackson and Maloni, 2005b:16-36). Relating to the need for fresh ideas, port stakeholders have to break from tradition and become more innovative in the way that they conduct their port operations (Luxner, 2004a:30-34). One innovation that has made a difference is that road transporters now transport containers for various shipping companies simultaneously instead of each company having a truck of its own. This idea has helped road transporters who collect or deliver cargo to ports to reduce their turnaround times to 25% of what they used to be (Leach, 2005b:12-14). In addition, if shippers were more innovative and paid greater attention to the packing of their containers, they could also contribute to the reduced transportation costs within the vicinity of the port (Jackson and Maloni, 2005b:16-36).

Fresh ideas would reduce traffic congestion, creating areas dedicated for standby cargo away from the immediate vicinity of the port (Gallagher, 2004:25). Port stakeholders should collect or deliver cargo outside of peak times as this would help reduce increasing traffic congestion problems within the port area and improve turnaround times during port operations (Mongelluzzo, 2005a:1). The cargo handled during off-peak times has already

reduced traffic congestion and attracted less costly handling fees at certain major North American ports such as the ports of Los Angeles and Long Beach (Cooke, 2002b:39). Then again, the South African logistics chain still requires improved innovation techniques when transporting cargo (Peat, 2005a:2). With cargo transportation, better cargo flows could be achieved by dredging deepwater channels at a port to safely accommodate the increasingly larger vessels which are used to transport sea cargo around the globe (Jackson and Maloni, 2005b:16-36).

2.3.3. Physical characteristics of a modern port

2.3.3.1. Larger vessels

The need for bigger vessels being used to transport cargo to ports across the globe has being envisaged (Chang, 2006b:110; Leach, 2004:14-16; Nevin, 1998:27-28). The port of Buenos Aires, which is unable to handle sizeable cargo vessels, has recently lost contracts to the well-matched port of Montevideo and the port of Santos (Luxner, 2004b:36-40). The port of Shanghai which is able to handle large-size vessels, has recently attracted significant cargo volumes away from major ports located in that region (Leach, 2005c:1). Similarly, the port of Cape Town is more suited to larger vessels than the port of Durban (Nevin, 1998:27-28). In addition, by 2008 the deepwater port of Ngqura would have the capacity to handle most of the containerised cargo, which currently lands at the port of Durban (Luxner, 2006:20-22).

Considering the success of deepwater ports, the plans to dredge deepwater shipping channels and upgrade the equipment at Durban's Container Terminal (DCONT) are aimed at attracting bigger vessels and improving the competitiveness at the port of Durban (Nevin, 2001:33). The port of New York, which is already capable of berthing larger vessels, is preparing to improve its ability to handle the cargo volumes that would be transported on board these larger vessels (Woellert in Washington, 1998:131).

2.3.3.2. Development of port land

In the past, PAs have acquired the land surrounding a port to meet the demands of shippers and freight companies for warehouses and supporting activities (Mongelluzzo, 2004b:15). Nowadays, better port administration would make the best use of the limited amount of land at the port (Garcia and Kulick, 2005:37-41; Hoyle, 2003:133; Mongelluzzo, 2004b:15). For example, the port of Guaymas currently has plans to improve its ability to handle greater cargo volumes, which would attract a significant proportion of cargo volumes away from the jammed port of Long Beach (Stauffer, 2006:14-15). Additionally, the facilities used to store cargo should not be located in close proximity to ports in an attempt to reduce congestion during port operations (Garcia and Kulick, 2005:37-41).

2.3.3.3. Traffic congestion

It is held that the ever-increasing volumes of containerised cargo handled at ports and the increased potential for traffic jams would continue for at least the next decade (Cooke, 2002b:39). These traffic problems have resulted from the greater numbers of vessels, which are now calling at ports across the globe; the larger volumes of cargo that modern vessels are able to transport (Peisley, 2005:136-137) compound the problem. Although there are favourable consequences from the growth in container traffic, PAs need to administer the congestion caused by traffic (Cottril, 1997:30-35). The increasing volume of container trade has created massive traffic problems in Hong Kong (Business: Ports in a storm, 2001:57-58).

It is suggested that an ongoing traffic bottleneck surrounding DCONT at the port of Durban may prompt port stakeholders to move their operations elsewhere (Peat, 2005b:10). The increasing traffic congestion at certain Brazilian ports is also prohibiting the smooth flow of cargo during port

operations and reducing the profitability of exporting goods from Brazil (Prada and Rapoza, 2004:36-39). In addition, port stakeholders have already shifted their operations from the crammed ports of Los Angeles and Long Beach to the nearby port of Lazaro Cardenas which is capable of handling large volumes of containerised cargo (Cooke, 2002b:39). In light of the above, these volumes should be properly administered in an attempt to reduce delays and improve turnaround times, which are required during port operations (Cooke, 2002b:39; Cottril, 1997:30-35; Jackson and Maloni, 2005b:16-36).

2.3.4. Quality of port operations against cost

Dreikorn and Zilbershtein (2005:189-195) both claim that the failure to recognise the impact of quality would ultimately have a negative influence on competitiveness. Contrary to the effect of quality, shipping companies rated reduced costs over high-cost port operations as a more important attribute than quality during port operations (Buckmann and Veldman, 2003:3). Efficiently operated ports have a better reputation than those ports that are not cost-effectively administered (Ford, 2005b:52-59).

2.3.5. Reputable port operations

In spite of the benefits associated with good reputation, few organisations have realised the importance that standing has on successful goal attainment (Shari, 1997:13-16). For example, the port of Durban is gaining a reputation of being unable to handle vessels in accordance with acceptable global norms (McCan, 2003:32-34). McCan believes that even with steps to reduce delays, the future dependability of port operations in this region now looks uncertain, as some exporters have indicated they would rather shift their port operations to the port of Maputo. This is supported by Norris and Ogunbiyi (2003:48) who believed the standing of a port could be improved by using better-trained employees during port operations.

2.3.6. Training

In addition to the need for good reputation, recent predictions emphasise a greater allocation of funds for the training and development of employees (Budgets set to soar as coaching gains popularity, 2004:3). The disadvantage of training and development is that the increasing cost of training would deter employers from developing their employees (Hadfield, 2005:57). If training is not done, the worldwide trend towards employing inexpensive seafarers, who usually have mediocre education and questionable skills, would hinder communication, safety and operating procedures used within the maritime industry (Mitroussi, 2003:22). In spite of the escalating cost of training, employers have no choice but to try to make the most out of the situation (Longwell, 2005:20-24).

Contrary to the high costs of training, properly trained employees would benefit an organisation in the long-term (Newman, 1996:54; Perry, 2005:20). For instance, suitably trained leaders have improved the likelihood of goal attainment in an organisation (Mitroussi, 2003:22). In the same way, bettertrained employees reduce expenses in the long-term as they have fewer accidents in the workplace, and suitably trained drivers are more economical as they save fuel during operations because of their newfound skills (Perry, 2005:20). Norris and Ogunbiyi (2003:48) feel that a combination of inadequate training and badly matched port employees contributed to a poor regard for the port of Maputo located on the east coast of Southern Africa. They also claim that the problems at Maputo are the result of various environmental disasters, poor administration capabilities and 16 years of civil war, which have scourged Mozambique.

PAs should therefore have the authority, eagerness and competency to be active participants in the decision-making process during port operations (Newman, 1996:54). These PAs would need to be capable of achieving

shorter turnaround times during port operations if they want their ports to be competitive (Mongelluzzo, 2005a:1).

2.3.7. Shorter turnaround times

It is held that shorter cargo handling periods would reduce costs and improve the competitiveness at a port (Denton, 2006:33-37; Leach, 2005b:1; Mongelluzzo, 2005a:1). For example, Asian ports have become more productive than some North American ports as they have better turnaround times (Mongelluzzo, 2005b:20-26). Talley (2000:937) believes that faster turnaround times and cost-cutting measures, such as making use of economical vessels and using joint ventures to transport cargo, have improved competitiveness amongst rival ports. For example, the application of highly evolved technology has helped reduce turnaround times during port operations at ports in South Carolina (Quinn, 2005:71-75). Short turnaround times have generally enhanced the competitiveness of ports on the world market (Mongelluzzo, 2005a:1).

2.4. THE IMPACT OF FINANCIAL MANAGEMENT

It is maintained that port stakeholders are also aware that the escalating costs of port operations and the importance of financial management at a port would determine its competitiveness (Bonney, 2005:1; Gallagher, 2004:25; Leach, 2005a:1). Contrary to the importance of financial management, a rift between managers who concentrate on long-term strategy, and cost accountants who focus on cost-cutting measures in the short-term would result in problems for an organisation as a whole (Doost, 1989:38; McConville, 2001:1). For example, poor financial management has delayed the building of port infrastructure, road and rail systems used to transport cargo at the port of Los Angeles and the port of Long Beach (Gallagher, 2004:25). It is held that better financial management methods should be used to improve the port's competitiveness (Leach, 2005a:1; Mongelluzzo, 2005d:1). New systems used to lower port charges, include creating strategic alliances between two or more groups of port stakeholders have reduced costs and improved port competitiveness (Mongelluzzo, 2005d:1). Another method of cutting costs, involves penalising those port stakeholders responsible for creating traffic congestion within the immediate vicinity of where port operations take place (Leach, 2005a:1).

2.4.1. Reasons for less costly ports

2.4.1.1. Port charges against cargo trade volumes

The charges of transporting cargo at a port would influence the amount of trade that is handled in the region in which the port is situated (Mongelluzzo, 2005d:1). In the same way, Hoffmann, et al. (2003:199) feel that inflated sea transportation charges would hinder the movement of trade. They also believe that cost-cutting measures do not always improve efficiency. Contrary to this, increased port efficiency would reduce port charges (Clark, Dollar and Micco, 2004:417-450). Jackson and Maloni (2005b:16-36) maintain that the combination of efficiency and less costly charges during port operations would build on the port's competitiveness.

2.4.1.2. Economical measures

It has been suggested that efficiency and lowering of charges are important when improving competitiveness between rival organisations (Denton, 2006:33-37). For example, PAs should concentrate on dropping charges to improve competitiveness during port operations at the port of Hong Kong, which is expensive and would forfeit cargo to the more economical Shenzhen ports. In view of the need for efficient port operations, the Shenzhen ports are presently increasing their market share by at least five times more than that experienced at the port of Hong Kong (Mongelluzzo, 2004a:52-56).

Better techniques are now needed to reduce the charge of operations and enhance the port's competitiveness (Chang, 2006b:110; Cottril, 1999:26-30; Denton, 2006:33-37). For instance, competitive ports have to focus on improved financial management such as variable rates and implementing less costly port operations (Chang, 2006b:110). In addition to these economical methods, PAs with uninterrupted control over port operations would have better control of their port charges (Cottril, 1999:26-30). Contrary to the advantages of less costly operations, some organisations have ignored this warning and are not making appropriate use of accessible cost-cutting techniques (Many companies missing cost, efficiency opportunities, 1999:14).

2.4.1.3. Port charges

Relating to these cost-cutting measures, Africa's transport charges are the highest in the world and could result in ports along the African coast being less pleasing to shippers (Connectivity and concessioning: a central theme for rail and harbours, 2005:15; McCan, 2003:32-34). Bearing in mind the need for inexpensive ports, port stakeholders should find new ways of reducing their port charges (Peisley, 2005:136-137). One way of reducing port charges is by using good quality infrastructure during cargo handling activities at a port (Ford, 2005b:52-59).

2.4.2. Port infrastructure

2.4.2.1. Low cost infrastructure

Taking the importance of port charges into account, a trend towards increased global trade has prompted administrators to become more innovative to find ways of improving the competitiveness of a port (Mongelluzzo, 2005d:1; Scholten, 1997:21-22). For example, port competitiveness has been improved by using good port infrastructure (Gallagher, 2004:25). These improvements in port infrastructure should not only be limited to activities within the port limits,

but also should include the road and rail services surrounding the port (Jackson and Maloni, 2005b:16-36). Similarly, increased demands for greater cargo volumes are forcing stakeholders to ensure they have suitable rail and port infrastructure to handle export cargo (Demand justifies massive boost to Queensland rail, port capacity, 2005:10). Contrary to the high costs of upgrading port infrastructure, upgrading is not negotiable as it is crucial to the smooth flow of cargo (Gallagher, 2004:25).

2.4.2.2. Integrated land and sea transport networks

It is maintained that ports with poor infrastructure are in danger of losing cargo volumes to ports that have better port infrastructure in place (Machalaba, 1998:A2; Mongelluzzo, 2005b:20-26; Stinnard, 2004:196-197). For example, poor infrastructure at Brazilian ports has prompted ship owners to reroute their vessels elsewhere in search of more profitable operations (Stinnard, 2004:196-197). Bearing in mind the need for better port infrastructure, ports should also find other ways of improving their land and sea networks. For example, there should be greater cohesion between road and rail transporters who handle cargo to and from ports (Machalaba, 1998:A2). In addition, port stakeholders ought to be more proactive when planning and implementing port infrastructure in the long-term (Mongelluzzo, 2005b:20-26). These long-term plans should include creating deepwater channels to accommodate the large-size vessels that are now used during the sea transportation of cargo (Mongelluzzo, 2005c:1).

2.4.3. Deepwater harbours

2.4.3.1. Investment needs

It is held that better cargo handling facilities and deepwater channels for bigger container vessels have improved the competitiveness of ports (Machalaba, 1998:A2; Nevin, 2001:33). Although these larger vessels carry more containers, they incur relatively reduced port charges compared to
combinations of smaller vessels (Machalaba, 1998:A2). Supporting this need for less costly port operations, the South African government is committed to improving port competitiveness by reducing costs, enhancing its container terminals and dredging deepwater shipping channels to accommodate bigger container vessels (Nevin, 2001:33). This plan would ensure that ports are upgraded towards handling the increased cargo quantities being transported on board bigger vessels (Connectivity and concessioning: a central theme for rail and harbours, 2005:15).

2.4.3.2. Port upgrades

Ports should also have deepwater channels to facilitate large cargo vessels being used during the large-scale sea transportation of cargo (Armbruster, 2004:18-26; Jackson and Maloni, 2005b:16-36; Weiskott, 1999:34-38). In view of this need for deepwater channels, competitive ports are dredging deepwater shipping waterways in an attempt to improve transportation methods between a port and its hinterland (Weiskott, 1999:34-38). For example, the competitive port of Charleston and the port of Wilmington have recently completed deepwater dredging projects and so would be able to accommodate larger vessels, which are now used during the worldwide transportation of sea cargo (Armbruster, 2004:18-26).

2.5. RIVALRY AND COMPETITIVENESS

It has been suggested that the increase in the cargo being transported at sea has enhanced the competitiveness of ports worldwide (Cooke, 2002a:28-32; Jackson and Maloni, 2005b:16-36). Similarly, there is intense rivalry amongst ports along the coast of Southern Africa, all wanting to increase their share of the greater cargo volumes on offer (Nevin, 1998:27-28). For instance, notable quantities of bulk cargo, containers, general cargo and vessel repairs are handled at the port of Cape Town. In addition, the port of Richard's Bay and the port of Saldanha are classified as being deepwater ports as they accommodate large volumes of bulk, coal and steel. The multi-purpose port of East London and port of Port Elizabeth handle bulk cargo, cars, containers, general cargo and do maintenance of vessels as well. Fishing facilities and inland gas services are on offer at the port of Mossel Bay (The South African Ports Yearbook 2004, 2003).

2.5.1. Port competitiveness

Moving further abroad, PAs at the world's largest ports realise that port competitiveness is increasing (Business: Ports in a storm, 2001:57-58). Cooke (2002a:28-32) believes that the growing need to transport greater cargo volumes from the East has increased the competitiveness between rival ports. For example, there is greater rivalry between ports competing for increased cargo volumes within the United Kingdom (Walker, 2005:14).

The trend of increased container handling at ports would be around for some time to come (Quinn, 2002:E67-E68). The result of this growing market combined with reduced transportation costs, has resulted in added rivalry amongst port stakeholders around the world (Schwartz, 1998:99-103). For example, the efficient port of Gwangyang is now destined to become a major competitive port as it handles the large cargo volumes coming out of Asia (Winds of change, 1997:26-27). On the other hand, port operations at the port of Antwerp and the port of Rotterdam are being congested by increased containerised cargo which stems from greater Chinese exports (Quinn, 2002:E67-E68). Unless these ports are able to improve their situation, their cargo volumes would soon go to more cost-effectively operated ports (Jackson and Maloni, 2005b:16-36).

2.5.2. Efficiency

It is maintained that improved efficiency during cargo handling activities at a port would improve competitiveness (Denton, 2006:33-37; Dismukes, 2004:2-4). For example, efficient port operations have improved the competitiveness

at Nigerian ports (Ford, 2005b:52-59). Cost-effective cargo handling methods have also enhanced the competitiveness at the port of New York and the port of New Jersey (Harrington and Knee, 1998:97-109).

In the same way even when ports share similar strengths, efficient ports would generally attract more trade than the less efficient ones (Business: Port in a storm, 2001:57-58). The shifting of cargo volumes from Malaysia to more efficiently operated ports in Singapore supports this view. Some British ports which recently had capacity problems have also lost cargo volumes to selected Dutch ports, which were more competitive in this area (Trepins, 2002:E66-E67). In contrast to these ports in Britain, productive ports in Singapore have improved the cost-effectiveness of their port operations by operating around the clock and becoming more competitive (Mongelluzzo, 2005d:1).

In light of the above, new methods and creativity are essential to meet the demand for greater efficiency during port operations amongst rival ports (Quinn, 2005:71-75; Van Niekerk, 2005:141-155). For example, proper responses to ever-changing conditions and circumstances are crucial for success (Dismukes, 2004:2-4). The views of the above-mentioned authors form the basis of the concluding remarks.

2.6. CONCLUSION

It has been shown that that ports are fast becoming an increasingly significant link in global economic development as the numbers of ports spread across the world validates. Also that the flow of cargo during port operations influences the fiscal growth of the region in which it is situated. It was also held that the nature of port administration involving financial management and management processes influences how smooth the flow of cargo is during port operations.

There is no doubt that greater rivalry between ports has prompted port stakeholders to find new techniques of increasing port competitiveness. For example, there should be greater teamwork between port stakeholders during cargo handling activities. Some of these authors also go on to warn that failure to administer port operations could result in these cargo volumes being diverted to more competitively operated ports.

The most important factors such as the costs, which occur during port operations, innovation used to ensure the smooth flow of cargo, turnaround time of cargo being discharged or stowed on board vessels, physical characteristics and the infrastructure used during cargo handling activities at a port, were described.

The diverse nature of these port activities influenced the research methodology, which applies to this investigation.

CHAPTER 3

RESEARCH METHODOLOGY

3.1. INTRODUCTION

An examination of the literature made it clear that as the port now handles most cargo volumes transported to and from this region by sea to international markets, the nature of its administration would play a significant role in Southern Africa's economic development (Luxner, 2006:20-22; Nevin, 2001:33). The wide-ranging nature of port stakeholders involved in administrating the flow of these critical cargo volumes (Dreikorn and Zilbershtein, 2005:189-195; Gallagher, 2004:25; Mongelluzzo, 2003:14-16), called for an investigation at the port. The objective of this investigation was achieved using a twofold course of action, namely an overview of available literature and empirical research at the port of Durban.

The rest of the chapter is devoted to the empirical research. The research design involving the study type, target population, sample, survey questionnaire, structure of the questionnaire and logistics of primary data collection are examined and explained. In addition, a description of the motivation of individual questions with particular attention to the demographics of survey participants, nature of administration on competitive attributes and ratings of competitive attributes are expounded on. The pilot study of the questionnaire examined the content of the survey questionnaire, guidelines for survey questions and the availability of participants at the port. The nature of the statistical analyses used is also explained.

3.2. RESEARCH DESIGN

3.2.1. Study type

A qualitative study showed the attitudes, opinions and judgement of participating VMs, PAs and WFs during the field study at the port.

3.2.2. Target population

The target population (1 331) included those VMs (751), PAs (520) and WFs (60) who were at the port of Durban between 01 July 2005 and 30 August 2005. VMs were selected from the 751 vessels that called at the port and the PAs from Upper Management (UM), Middle Management (MM) and Lower Management (LM) employees who were employed at the port during the field study. The WFs were selected from the various waterfront concerns located within the port's limits. The target population included mainly VMs, fewer PAs and even less WFs as illustrated in Figure 3-1.





3.2.3. Sample

It is from this target population that the sample was selected.

3.2.3.1. Sample selection

The sample included those respondents who were at the port during the field study as follows:

Vessel Masters

Interviews of participating VMs occurred on board various vessel types during the field study. Most VMs (39%) were from container vessels. General cargo vessels represented a notable proportion of VMs (24%) at the port. The remaining VMs (37%) were from dry bulk, tankers, miscellaneous and car carrier vessels. The VMs represented a variety of vessel types as shown in Figure 3-2.



Figure 3-2 Vessel masters

Port Administrators

PAs from National Ports Authority of South Africa (NPA) and South African Ports Authority (SAPO) also participated in this investigation. The NPA participants attended interviews at the Ocean Terminal Building (OTB) and at associated departments located within the port. Some NPA participants were even interviewed on board various types of vessels used during port operations at the port. SAPO participants attended interviews mostly at DCONT and to a lesser extent at the various terminals located at the port of Durban. The types of PAs are set out in Figure 3-3.



Figure 3-3 Port administrators

Waterfront Facilitators

Other than the above-mentioned respondents, most WFs were from the staff at stalls (37%), whilst the remainder worked at tearooms (27%), restaurants

(20%), yacht clubs (7%) and recreational clubs (9%) within the port. The WFs covered a selection of different ventures as illustrated in Figure 3-4.



Figure 3-4 Waterfront facilitators

3.2.3.2. Sample size

A minimum sample size of 10% of the population was needed for this empirical research, however the large number of participating VMs (89) (11.85%), PAs (124) (23.84%) and WFs (45) (75.0%) meant that the eventual sample size increased to 19.38% of the target population. The variances in the different sample sizes are set out in Figure 3-1 (Page 31).

3.3. SURVEY QUESTIONNAIRE

3.3.1. Pilot study of the questionnaire

An unstructured pilot study was conducted to establish the framework for the content of the questionnaire and to set guidelines for the survey questions. At the same time the availability of the respondents to complete the questionnaires were considered.

3.3.1.1. Content of the survey questionnaire

The pilot study indicated that the main areas of port administration were the financial management and management processes at the port. Questions

were therefore structured to collect primary data relating to the financial management and management processes of port operations. The study further showed that the port's competitive attributes needed to include costs, infrastructure, innovation, physical characteristics, quality, reputation, staff training and turnaround time.

3.3.1.2. Guidelines for survey questions

The pilot study prompted the use of specific subject terminology for the various respondents at the port. For example, questions to VMs were to relate to drydocking, marine service, navigable channels, pilotage and ship repairs. It was also found that the VMs had already encountered the administration at rival ports along the east coast of Southern Africa, whilst the PAs and WFs did not have this information. It was also clear that PAs had access to port records relating to administration, whilst the VMs and WFs had limited dealings with these documents. Furthermore, VMs and PAs had already come across various activities during day-to-day port operations, whilst the WFs did not have access to these events. It was also true that those WFs, with good harbour views, may have been able to view selected port operations albeit on an ad hoc basis. Taking these guidelines into account, the survey questions were modified to best suit the respondents of this research.

3.3.1.3. Availability of participants

The pilot study confirmed that a fixed two-month period would be sufficient to obtain primary data from the VMs, PAs and WFs.

Vessel Masters

It was found that the demands of sea transportation dictated the number of VMs who called at the port. It was also discovered that the VMs preferred to be interviewed on board their vessels whilst alongside at the port. A small number of VMs, more particularly on board small fishing vessels, appeared to

be either unable or unwilling to communicate in English. As these survey questionnaires were prepared in English, the number of participating VMs was restricted to those respondents who understood English.

Port Administrators

The study showed that the PAs were able to attend interviews at their places of work at the port. Contrary to this, interviews with those PAs who worked shifts were adapted to suit their activities during the day-to-day administration of the port. A list of selected PAs with their contact details, including their telephone numbers and email addresses, was obtained during the pilot study.

Throughout the study, it emerged that some PAs viewed the empirical research with distrust and apprehension. Some PAs, more particularly the junior employees also did not have a strong grasp of the English language and therefore did not complete the survey questionnaires, which had been prepared in English. This posed a problem, as all the survey questionnaires had been drafted in English and this language barrier reduced the chance of these potential respondents from participating in the research.

Waterfront Facilitators

The study revealed that WFs were mainly situated along the northern half of the port. Due to the large number of casual and semi-permanently hired WFs, it was difficult to predict the availability of these participants during the period of field study.

3.3.2. Structure of the questionnaire

Survey forms were structured in such a way that the gathered data could be used in group analysis to determine the opinions amongst respondents. Each question (Q) in the survey provides a rating for the respondents to indicate their opinion. The respondents showed which rating they agreed with by marking the selected box on the survey questionnaire. When possible, similarly phrased statements and questions facilitated cross analysis of the research findings. For example, VMs and PAs were asked identical questions relating to the procurement process, which had been used at the port since 2002. VMs and WFs were also asked to determine the level of business ethics they had experienced at the port. VMs and PAs then went on to rate the causes of delays at the port involving selected port operations. The respondents were also asked to establish the quality of administration involving selected facilities used during port operations.

Appropriate subject related terminology was used to structure the survey forms to suit the knowledge and environments of the VMs, PAs and WFs at the port of Durban. For instance, VMs did not know whether the rental costs of port land was at market related prices, whereas the PAs and WFs did. It was assumed that PAs also did not have adequate knowledge of port administration at rival ports along the east coast of Southern Africa. Furthermore, WFs were not expected to know the turnaround times of vessels calling at the port. Considering these differences, it was more appropriate to prepare separate surveys forms for VMs (Appendix A), PAs (Appendix B) and WFs (Appendix C). The layout of the three survey questionnaires is outlined as follows:

3.3.2.1. Vessel Masters (Q1 to Q10)

VMs (Q1.1 to Q1.3) were asked to reveal their demographic characteristics related to gender, race and age. These VMs (Q1.4 to Q1.5) then showed the number of years and the frequency with which they had been calling at the port of Durban. VMs (Q2 to Q9) went on to report on relationships between the nature of administration and competitive attributes. VMs (Q10) were also asked to rate the status of these competitive attributes in order of importance. Analysis using cross-tabulations between VMs and PAs was made possible, as certain questions put to VMs were identical to those answered by PAs.

3.3.2.2. Port Administrators (Q1 to Q10)

PAs (Q1.1 to Q1.3) were asked to indicate their gender, race and age to describe their demographic profiles. Participating PAs (Q1.4) and (Q1.5) then revealed how many years they had worked at the port as well as their grades at the port of Durban. PAs (Q2 to Q9) considered whether there existed a relationship between the nature of administration and competitive attributes at the port. PAs (Q10) later rated the status of these competitive attributes from most to least important. Research findings from VMs and PAs were significant to the investigation as they supposedly had comparable knowledge of the day-to-day port operations.

3.3.2.3. Waterfront facilitators (Q1 to Q6)

WFs (Q1.1 to Q1.3) were asked to report their demographic make-up such as gender, race and age. Participating WFs (Q1.4) then revealed the number of years they had been employed at the port. Results obtained from WFs (Q2 to Q5) showed the relationship between the nature of administration and the competitive attributes at the port. As a final section to their survey questionnaire, WFs (Q6) were asked to rate the competitive attributes in order of importance as well. For easy reference, a summary of these survey questionnaires is attached as Appendix E.

3.3.3. Logistics of primary data collection

Three hundred and nine survey questionnaires were distributed to selected VMs (89), PAs (175) and WFs (45) during the field study at the port of Durban. Of the total, 258 survey questionnaires returned by the respondents: VMs (89), PAs (124) and WFs (45). This translates into an 83.49% response rate.

3.3.3.1. Interviewing procedures

Survey participants were orientated to the subject matter and made to feel at ease prior to the start of each interview. It was soon realised that face-to-face interviews were the most advantageous procedure to follow as they encouraged two-way communication and provided an opportunity to answer questions put forward by the interviewees. These face-to-face interviews encouraged the survey participants to complete the survey forms immediately and not later. Whilst the interview format permitted open discussion regarding the topic, the survey questionnaire ensured that survey participants remained focussed on the issues in this research.

3.3.3.2. Arrangement of interviews

Most interviews occurred on a face-to-face basis at their respective places of work within the port as follows:

Vessel Masters

Prior telephonic conversations with selected Port Agents revealed which vessels would call at the port. This determined which VMs would be available to participate in this field study. The Port Agents subsequently confirmed the vessel's name, berth and the estimated duration that it would be alongside in the port. Due to the nature of shipping, interviews with VMs took place on a face-to-face basis on board their vessels at the port. The weather conditions such as the sea state and wind determined the duration of the voyage between ports and dictated when the vessel would arrive at the port. Upon arrival at the port, the vessel only went alongside once a suitable berth was available for port operations to take place. The availability of cargo also influenced the vessel's berthing time to stow or discharge cargo at the port. This made it hard to forecast the exact period when the VMs would be available to be interviewed.

Once the vessel berthing details were received, selected VMs were interviewed to conduct the field studies at the port. The VMs indicated that they were willing to participate in the field study. Considering the uncertain availability of vessels calling at the port, the researcher had to be flexible and adaptable when arranging interviews with the VMs. Furthermore, as face-to-face interviews with the VMs took place on board their vessels, precautionary measures were necessary to ensure the personal safety of the researcher. The participants enhanced their personal safety by wearing customary hard hats, reflective vests and non-skid boots when on board vessels at the port. Unlike the difficulty in arranging interview sessions with VMs, it was easier to make appointments with PAs to complete their survey questionnaires.

Port Administrators

On 25 April 2005, permission was granted by NPA to conduct the field study and interview PAs on condition that, because the research findings may be regarded as sensitive, they would only be made available for academic purposes at the Durban Institute of Technology (DIT). This letter of authority recommends that these research findings should be distributed to the Port Executive Committee (PORT EXCO) at the port of Durban. A copy of this document is attached as Appendix D.

To put the PAs at ease they were given due notice (Appendix D) of the field study and informed by means of notices on notice boards, by email and by word of mouth. In spite of this authorisation, some PAs viewed the field study with concern and seemed hesitant to participate, as they were not entirely convinced that their answers would be anonymous. This reluctance was aggravated by the fact that the nature of port operations resulted in the irregular availability of these respondents.

Most PAs were office bound and were therefore interviewed at their fixed places of work at the port. This allowed survey forms to be completed by

telephone, post, email or on a face-to-face basis. The remaining PAs, involved in the day-to-day port operations, were interviewed at ad hoc venues, as it was problematic to pinpoint their exact movements during the field study. Some PAs worked in shifts, which meant that the interview sessions were conducted at irregular times. It was more practical to interview these PAs individually when and where they became available during the field study period. Extra caution was taken when interviewing those PAs who were involved in port operations during the night shift. For example, the interviewer was cautious when travelling throughout high risk areas within the port. High-risk areas were those in close proximity to cargo handling operations and related moving road and rail transport systems.

Waterfront Facilitators

Due to the nature of their business, WFs were interviewed at their places of work during the field study. These interview sessions were mostly conducted during off-peak hours when fewer than normal patrons were around. The close proximity of WFs to each other, generally expedited the speed at which these respondents were interviewed. They were located in small clusters on the northern side of the port, which reduced travelling distances and the time taken to move from one interview to another.

3.3.3.3. Communication methods

Various communication methods were used to gather primary data during the field study. For instance, attempts were initially made to conduct the surveys telephonically. Survey forms were also posted and sent via email to selected participants. After some time, it became obvious that face-to-face interviews were the most efficient communication method for the study. The communication methods used are outlined below.

Telephone and postage

Early attempts to telephone participants were unsuccessful. It was practically impossible to telephone VMs, let alone conduct a telephonic interview. As these VMs were only alongside for brief periods it was difficult to obtain their telephone details. PAs were also not always readily available to participate in telephonic interviews due to the nature of their work commitments. Technically telephonic communication was also problematic as PAs who were involved in port operations at times communicated only with Very High Frequency (VHF) radios when they moved around the port of Durban. Due to the busy work schedule of WFs, it was also difficult for them to complete an entire survey form by telephone during a single session.

In addition to the telephonic interviews, efforts to post survey forms to participants proved to be problematic for various reasons. It was impractical to post survey forms to VMs due to the short periods that they were alongside at the port of Durban. Most PAs did not reply at all to survey forms, which were posted to them. Similarly, WFs also did not return survey forms that had been posted to them. After these failed methods of communication, efforts were made to email survey forms to respondents.

Email

Although this method of communication ought to have been more efficient than the previous methods, the results were unfortunately similar to the attempts at telephoning or posting. It turned out that it was not possible to contact any VMs by email whilst they were alongside at the port. It also appeared that some PAs seemed to distrust email when completing their survey forms, as they felt their replies were not necessarily anonymous. Fewer than 5% of PAs replied to the survey forms via email, whilst no WFs responded to survey forms, which had been emailed to them. At that stage, it became clear that face-to-face interviews would be a better method of collecting primary data from the respondents.

Face-to-face interviews

These unsuccessful communication attempts proved that, face-to-face interviews were the best method of communication between the interviewer and the survey participants. Although these face-to-face interviews were effective, they resulted in logistical challenges, as the interviewer had to travel to and from interview venues within the port of Durban. The need to travel increased the overall time and turnaround time needed to successfully complete interviews during the field study period. Additionally, the nature of port operations resulted in the interviewer having to travel through high-risk areas such as shunting railway wagons, mobile forklift vehicles, over-head gantry work and nearby cargo handling operations.

3.4. MOTIVATION OF INDIVIDUAL QUESTIONS

Basic guidelines for the completion of each survey questionnaire ensured that collected data would be clean and meaningful for the analysis. The contents of the survey questionnaires were divided into three sections. Firstly, respondents were requested to insert information regarding their demographic profiles. Secondly, respondents then described the relationships between the nature of administration and competitive attributes at the port. Thirdly, the respondents rated identical competitive attributes in order of importance. These three parts are explained as follows:

3.4.1. Demographics of survey participants

Respondents revealed their gender (Q1.1) to determine if opinions differed between males and females. The results were more applicable to the PAs and WFs as there was a greater gender representation amongst them. As shipping has historically been a predominantly male dominated industry, VMs were mostly males.

Respondents were asked to indicate if they were Asian, black, coloured, other or white (Q1.2). This was considered an important question as it showed how the various race groups viewed the impact that the nature of administration had on the competitiveness of the port. In the past, there have been very few black seafarers, therefore there were few blacks amongst the VMs who participated in this investigation. Due to the globalisation of sea transportation, multi-ethnic respondents were also given the option of rating themselves as being a member of a race group other than Asian, black, coloured or white.

PAs were also asked to show their seniority at the port. This determined the opinions of port employees at the various levels of the decision-making process during port operations. For example, senior ranked employees would have a better idea of how the port was administered in the long-term, whilst more junior ranked employees had a better understanding of the day-to-day port operations.

The respondents were also asked to indicate the length of time they had worked at the port. This was deemed relevant, as those who had been at the port for longer periods should have had a better understanding of the port than those with shorter service periods. The respondents with lengthy periods of service were able to rate the nature of administration on its competitive attributes more accurately than those with less than one year's experience at the port.

VMs were asked to indicate how frequently they called at the port. This was considered relevant, as respondents who called at the port more often would have had a better understanding of the impact that the nature of administration has had on the competitive attributes at the port of Durban. For example, these VMs already had various encounters with such as marine service provided to vessels, handling cargo during port operations and making use of ship repair facilities at the port.

3.4.2. Nature of administration on competitive attributes

The survey questionnaire asked the VMs (Q2-9), PAs (Q2-9) and WFs (Q2-6) to record the impact of administration on the port's competitive attributes for the following reasons:

Costs

Respondents were asked questions pertaining to the costs of operations at the port. It was assumed that the port charges would have differed between rival ports as the turnaround time of vessels during port operations determined the total port costs. Traffic congestion in the port area not only results in delays, but also increases the transportation costs at the port. In addition, delays during marine service had a negative influence on overall costs at the port. It is maintained that improved financial management is essential to acquire appropriate infrastructure at a port to eliminate additional and unnecessary expenses being incurred by vessels using the facilities (Peat, 2005a:2).

Infrastructure

The survey included questions on the infrastructure at the port for several reasons. For instance, port stakeholders have to monitor trends used during global sea transportation to ensure that their infrastructure is capable of handling the increasing cargo volumes at the port. In addition, port infrastructure and equipment is expensive and incorrect judgement in purchasing mismatched equipment could be costly. The dry-dock facilities have to be large enough to accommodate any large cargo vessels which might require ship repairs. Relating to the latter, bigger vessels require more powerful tugs to ensure safe marine service when navigating within the port. The increased volumes of containerised cargo have prompted port stakeholders to acquire modern gantries and straddle carriers to increase the efficiency of their port operations. Complex pipelines used to service gas, chemical and liquid cargoes are essential during port operations. It was held

that due to the time and expense, which would be needed to change port infrastructure, port stakeholders should be more innovative when using existing infrastructure (Gallagher, 2004:25).

Innovation cargo handling operations

Due to the increasing cargo volumes and associated challenges, it is maintained that port stakeholders have to find more innovative ways of handling cargo during port operations (Luxner, 2004a:30-34). Respondents were therefore asked if fresh ideas were encouraged to deal with the increasing traffic congestion problems associated with increased cargo volumes at the port as well. Taking into account the limited resource of land within the port, respondents were asked to indicate if new cargo handling methods were needed to ensure the smooth flow of cargo.

Physical characteristics

There is a global trend towards using larger cargo vessels during sea transportation and it is maintained that this has prompted port stakeholders to alter a port's physical characteristics (Garcia and Kulick, 2005:37-41). Respondents were therefore asked if there was a necessity for greater quay space to accommodate increased cargo volumes now having to be handled at the port. Questions also revealed whether port stakeholders considered their societal responsibility towards WFs when proposing changes to the port's physical characteristics.

Quality

The respondents were asked to indicate if in their opinion the quality of administration during port operations determined the flow of cargo during the various stages of port operations. Taking this into account, the respondents also indicated the state of deepwater channels, as it was important that vessels have safe access when manoeuvring within a port (Nevin, 2001:33).

Reputation

Some authors view the port of Durban in a negative light (McCan, 2003:32-34). Because of this, respondents were asked to determine the transparency of administration at the port. Respondents were asked questions pertaining to the business ethics at the port for a variety of reasons. For example, port stakeholders have a duty to do their business within the lawful rules, which are imposed at the port. Furthermore, a code of ethics limited ambiguity during port operations and made port stakeholders aware of rules and values they had to conform to. The adherence to good business ethics would also encourage multi-lateral trade to and from the region and improve the competitiveness of the port. Moreover, port stakeholders should be taught which business ethics are applicable during port operations at the port.

Training

Perry (2005:20) maintained that suitably trained port stakeholders have to improve the flow of cargo during port operations. The respondents were therefore asked if the port stakeholders were trained to deal with the requirements of their individual roles at the port.

Turnaround time

It has been suggested that the turnaround time of vessels had a direct influence on the overall transportation costs that are incurred at the port (Denton, 2006:33-37). Because of this, respondents considered the length of delays, which might occur during port operations. Furthermore, the frequency of potential delays, which hinder the flow of cargo at the port, was found. These delays occurred when cargo was not available during port operations, during periods of industrial action, the marine service was not suited to the nature of shipping, there were insufficient pilots to assist VMs and when poor weather prevented cargo handling activities taking place at the port.

3.4.3. Ratings of competitive attributes

Respondents at the port of Durban were asked to rate eight competitive attributes in order of importance (VMs Q10, PAs Q10, WFs Q7). The guidelines were that the more important competitive attributes would be those that are considered essential when making comparisons with the nature of administration at the port, whilst the least important competitive features would be those that were considered less influential on port competitiveness. Subsequent analysis and interpretation of these ratings showed whether the respondents shared similar views related to competitive attributes.

The survey questions were prepared for the VMs, PAs and WFs and tested during a pilot study at the port.

3.5. STATISTICAL ANALYSIS

The survey questionnaires were structured so that upon completion of the field study the research data could then be easily grouped and filtered. This facilitated the statistical analysis and the final interpretation of the research findings. In addition, the analysis showed the presence of patterns and relationships between the research findings. See Appendix J.

3.6. CONCLUSION

The study type, target population, sample, structure of the questionnaire, individual questions, pilot study of the questionnaire, statistical analysis, nature of the respondents, responses to the questions and cross tabulations were covered in this section.

The qualitative study collected the attitudes from VMs, PAs and WFs during the field study. The VMs were selected from a variety of cargo vessels, which called at the port during the field study. Additionally, PAs were identified from different levels of management and provided varying research findings. Lastly,

WFs were selected from a variety of businesses, which were located around the port.

The data collection styles varied according to the availability of these respondents at their places of work. Taking the availability of respondents into account, VMs were all questioned on board their cargo vessels whilst alongside at the port. Most PAs were interviewed at their places of work, whilst remaining PAs were interviewed at convenient locations during their day-to-day activities within the port. Face-to-face interviews were the best communication method when collecting data during this field study.

The content of this survey questionnaire was tested during the pilot study, which was held at the port. The pilot study showed that financial management and management processes were seen as significant factors affecting the nature of administration. This study identified the most common competitive attributes as being costs, infrastructure, innovation, physical characteristics, quality, reputation, training and turnaround time at the port.

The structure of the questionnaire, the make up and motivation of the individual questions compiled in accordance with the guidelines of a pilot study form the core of this research. These components are used in the field study with the focus of collecting the data for the analysis and interpretation thereof.

CHAPTER 4

FIELD STUDY

4.1. INTRODUCTION

The survey questionnaire was designed to obtain primary data from selected VMs, PAs and WFs during an eight-week period at the port of Durban. The investigation was necessary, as it has been suggested that little research on the role of ports in transportation of cargo had been undertaken (Jackson and Maloni, 2005b:16-36; Basso, et al., 2002:419).

The field study dealt with here covered the research objectives of the research. The study includes the nature of respondents who participated in the field study at the port and goes on to establish the demographics of the VMs, PAs and WFs at the port. It was found that the research findings are twofold, namely the ratings of competitive attributes and the relationships between the nature of administration and competitive attributes. In this, the findings cover costs, innovation, turnaround times, infrastructure, physical characteristics, quality, reputation and training at the port. All these aspects are set out in Diagram 4-1, which depicts the outline of the field study.





4.2. NATURE OF RESPONDENTS AND VALIDITY OF RESEARCH

4.2.1. Vessel Masters

VMs had all qualified as Master Mariners in accordance with the internationally accepted Standards of Training, Certification and Watch Keeping (STCW) of 1995. The VMs had strong interpersonal skills and could answer most of the questions without referral but where they did not know the answer, they were able to identify and suggest alternative sources or solutions thus clearly demonstrating the ability to solve abstract problems. The nature of the questions posed to the VMs was such that they required a holistic view of port operations and events to be able to answer satisfactorily. In this, they showed sincere concern with improving the efficiency of the cargo handling activities at the port.

4.2.2. Port Administrators

PAs comprised UM, MM and LM employees involved in the various stages of cargo handling activities at the port. The UM administrators were more involved in the long-term decision-making process and policy-making at the port. They showed that they were often required to make decisions about unexpected problems based upon the varying conditions and circumstances at the time. These employees also demonstrated high conceptual skills and viewed the various port departments in a holistic manner, acknowledging each department's role in working towards a common goal. They seemed to have a good understanding of the day-to-day operations in more than one department within the port. These respondents also seemed committed to improving synergy amongst the various port stakeholders. Moreover, the UM preferred to work as individuals or in small groups. This was obvious as they often worked alone in an office or in small groups during meetings. They very seldom interacted directly with the large number of employees involved with the day-to-day operations at the port.

The second group of administrators, the MM were more involved in the short and medium term administration of the port. In this, they were more involved with the day-to-day port operations than were the UM. The MM differed from the UM in that they had stronger interpersonal skills as they had to work in groups to ensure the smooth flow of cargo at the port. For example, the MM often had to communicate with both senior and junior employees from a variety of different departments. Contrary to this, some MM were frustrated as they were in a position where they had to make rapid decisions but were held back because they had to wait for higher approval.

The third group, the LM focused their skills and attention on the day-to-day cargo handling operations within their individual departments around the port. In this, they were never involved in the long-term decision making process at the port. Whilst they seemed to have been comfortable in their place of work, they were not aware of the work done outside of their departments. This became evident because some LM were often uncertain of how to rate other departments on their designated survey questionnaires. Rather than being efficient, these respondents were more concerned with simply getting the job done effectively.

4.2.3. Waterfront Facilitators

WFs had strong interpersonal skills and seemed capable of solving problems on an impromptu basis. They had to deal with a diverse clientele with varying demands on a daily basis. These innovative individuals also administered their time well and operated best when under strain as their fluctuating work demands increased dramatically during peak business hours.

The communication skills, conceptual skills and the role they played during cargo handling activities at the port varied for the VMs, PAs and WFs. The diverse nature of these respondents led to different responses to the survey questionnaires.

4.3. **DEMOGRAPHICS**

Overview of demographic findings

Other than a few exceptions, the VMs, PAs and WFs shared similar demographic profiles. All VMs were male, mainly white, mostly 50 to 59 years old and had been calling frequently at the port of Durban for a number of years. Similarly, most PAs were males, mostly white, middle-aged, ranked as MM and been employed for a number of years at the port. WFs were also predominantly male, mostly white, were mainly middle-aged and had worked at the port for a notable period. The supporting details are:

Gender (VMs Q1.1, PAs Q1.1, WFs Q1.1)

The survey showed that nearly all of the respondents were male and worked in a male dominated port as illustrated in Table 4-1.

Table 4-1 Gender of respondents

Respondents	Males
VMs	100.00%
PAs	80.64%
WFs	80.00%

Race (VMs Q1.2, PAs Q1.2, WFs Q1.2)

It was found that most of the respondents were white. A few PAs and WFs were black, whilst no black VMs participated in the research. Very few coloured PAs and WFs participated in the research, whilst no interviews with coloured VMs took place. At least a quarter of the WFs were Asian. The

respondents represented a variety of different race groups as shown in Table 4-2.

Respondents	Asian	Black	Coloured	Other	White
VMs	7.86%	0.00%	0.00%	7.88%	84.26%
PAs	12.09%	18.54%	4.83%	0.84%	63.7%
WFs	24.44%	8.9%	4.44%	0.00%	62.22%

Table 4-2 Race of respondents

Age (VMs Q1.3, PAs Q1.3, WFs Q1.3)

According to the survey, no VMs and WFs were less than 20 years old, whilst only two percent of the WFs were. Slightly more WFs and PAs were between the ages of 20 to 29 years. A small proportion of the PAs were 30 to 39 years old, whilst numbers of VMs and WFs in this age group were relatively lower. Participants in the age group 40 to 49 years old were well represented. The majority of the VMs were between the ages of 50 to 59 years old with only a few participants older than 59 years. The survey showed that the respondents were aged differently as set out in Table 4-3.

Table 4-3 Age of respondents

Respondents	< 20 years	20 to 29	30 to 39	40 to 49	50 to 59	> 59 years
		years	years	years	years	
VMs	0.00%	0.00%	2.24%	19.1%	62.92%	15.74%
PAs	0.00%	8.87%	34.67%	28.22%	25.84%	2.4%
WFs	2.22%	8.88%	13.33%	48.88%	17.77%	8.92%

Employment history (VMs Q1.4, PAs Q1.4, WFs Q1.4)

It was found that relatively few VMs and PAs had worked at the port for shorter than five years, whilst a small number of the WFs had. A few of the PAs and WFs had six to ten years of service at the port. A large percentage of the VMs had worked for between 11 to 20 years at the port. Fewer VMs and PAs indicated that they had been working more than 20 years at the port, whilst this

number was much lower for the WFs. The periods of employment of the respondents are set out in Table 4-4.

Respondents	1 to 5 years	6 to 10 years	11 to 20 years	> 20 years
VMs	3.37%	13.48%	44.94%	38.21%
PAs	14.51%	28.22%	29.03%	28.24%
WFs	31.11%	35.55%	22.22%	11.12%

Table 4-4 Employment history of respondents

Frequency of calls by vessels (VMs Q1.5)

The survey showed a large proportion of the VMs (52.27%) claimed they had called between two to five times per annum at the port. Slightly fewer (46.59%) indicated they had called more than five times per annum, whilst hardly any (1.14%) indicated they called at the port only once per annum.

Grades (PAs Q1.5)

Bearing in mind the employment history of the PAs, the majority of respondents (73.39%) indicated they were MM at the port of Durban. Small numbers of PAs (9.68%), (6.45%) and (10.48%) indicated that they were JO, LM and UM respectively. It was found that it was more convenient to combine the research findings obtained from the small number of JO with those obtained from the LM at the port.

4.4. RESEARCH FINDINGS

The rating of competitive attributes and relationships between the nature of administration and competitive attributes formed an important part of the research. For easy reference, labels are used to denote each research finding with a question number relating to the original survey questionnaires for VMs (Appendix A), PAs (Appendix B) and WFs (Appendix C). Cross-tabulations of all research findings are on a CD-R compact disk as Appendix I for ease of reference.

4.4.1. Ratings of competitive attributes

The research findings showed clearly that the respondents were of the opinion that costs, innovation, and turnaround time rated as the most important competitive attributes. On the other hand, it was shown that training, reputation and quality were considered the least important competitive attributes at the port. Most WFs hold opposing views when rating the port's reputation as more important and the turnaround time as less important, in contradiction to what the VMs and PAs felt. The survey highlights that some competitive attributes were more important than others as shown in Figure 4-1 were.





The details of these ratings are as follows:

Costs (VMs Q10.1.1, PAs Q10.1.1, WFs Q7.1.1)

The respondents indicated that in their opinion they considered that costs were the most important competitive attribute at the port. A small number of VMs, PAs and no WFs were of the opinion that it was the least important. The rating of these costs is illustrated in Table 4-5.

Table 4-5 Rating of costs

	Most	important		L	east impo	rtant		
Respondents	1	2	3	4	5	6	7	8
VMs	44.94%	26.96%	15.73%	4.49%	2.24%	3.37%	1.12%	1.15%
PAs	37.90%	16.93%	15.32%	8.87%	8.06%	6.45%	2.41%	4.06%
WFs	60.01%	20.00%	15.55%	2.22%	0.00%	2.22%	0.00%	0.00%

Innovation (VMs Q10.1.3, PAs Q10.1.3, WFs Q7.1.3)

The respondents considered innovation to be the second most important competitive attribute at the port. A small number of VMs and PAs thought it was the least important. Interestingly, the WFs were of the opinion that innovation was rated in the top three positions of importance as shown in Table 4-6.

Table 4-6 Rating of innovation

	N	lost importa	ant		Least important			
Respondents	1	2	3	4	5	6	7	8
VMs	16.85%	39.32%	22.47%	6.74%	7.86%	4.49%	1.12%	1.15%
PAs	8.06%	16.93%	23.38%	9.67%	11.29%	12.90%	10.48%	7.29%
WFs	28.88%	57.77%	13.35%	0.00%	0.00%	0.00%	0.00%	0.00%

Turnaround time (VMs Q10.1.8, PAs Q10.1.8, WFs Q7.1.8)

According to the survey, a quarter of the VMs and PAs rated turnaround time as being the third most important competitive attribute at the port. The majority of the VMs and PAs were of the opinion that turnaround time was the most important. On the other hand, a large proportion of the WFs regarded turnaround at the port as being the least important. No WFs were of the opinion that turnaround time was the most important. This dissimilarity is set out in Table 4-7.

	N	lost importa	Int		Least important			
Respondents	1	2	3	4	5	6	7	8
VMs	30.33%	12.35%	24.71%	15.73%	6.74%	2.24%	2.24%	5.66%
PAs	20.16%	15.32%	19.35%	17.74%	11.29%	5.64%	5.64%	4.86%
WFs	0.00%	0.00%	4.44%	8.88%	11.11%	6.66%	26.66%	42.25%

 Table 4-7 Rating of turnaround time

Infrastructure (VMs Q10.1.2, PAs Q10.1.2, WFs Q7.1.2)

It was found that the VMs and PAs rated infrastructure as being the fourth most important competitive attribute at the port but hardly any of them were of the opinion that it was the most important. Contrary to this, a quarter of the WFs rated infrastructure the least important competitive attribute. Table 4-8 shows the rating of infrastructure.

Table 4-8	Rating	of infrastructur	e
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	N	lost importa	ant		Least important			
Respondents	1	2	3	4	5	6	7	8
VMs	1.12%	16.85%	12.35%	23.59%	15.73%	12.35%	5.61%	12.40%
PAs	9.67%	16.12%	16.12%	20.96%	12.09%	9.67%	5.64%	9.73%
WFs	0.00%	2.22%	8.88%	13.33%	2.22%	28.88%	15.59%	28.88%

Physical characteristics (VMs Q10.1.4, PAs Q10.1.4, WFs Q7.1.4)

A quarter of the VMs and WFs rated physical characteristics as being the fifth most important competitive attribute. Similarly, a fifth of the PAs rated it as being the seventh most important. A small number of respondents were of the opinion that it was the most important. Most of the respondents were of the opinion that physical characteristics are not the most important competitive attribute as illustrated in Table 4-9.

Table 4-9 Rating of physical characteristics

	N	lost importa	ant		Least important			
Respondents	1	2	3	4	5	6	7	8
VMs	5.61%	0.00%	7.86%	11.23%	20.22%	20.22%	23.59%	11.27%
PAs	4.83%	8.87%	5.64%	10.48%	16.12%	16.12%	20.96%	16.98%
WFs	2.22%	2.22%	6.66%	13.33%	35.55%	17.77%	17.77%	4.48%

Quality (VMs Q10.1.5, PAs Q10.1.5)

It was found that no VMs, WFs and hardly any PAs were of the opinion that quality was the most important competitive attribute. A small number of the respondents rated quality as being an average competitive attribute as shown in Table 4-10.

Table 4-10 Rating of quality

	N	lost importa	int		Least important			
Respondents	1	2	3	4	5	6	7	8
VMs	0.00%	1.12%	3.37%	14.60%	17.97%	21.34%	21.34%	20.26%
PAs	0.80%	8.87%	4.83%	9.67%	17.74%	13.70%	22.58%	21.81%
WFs	0.00%	2.22%	17.77%	33.33%	24.44%	6.66%	11.11%	4.47%

Reputation (VMs Q10.1.6, PAs Q10.1.6, WFs Q7.1.6)

It was found that the VMs and PAs indicated that in their opinion they considered reputation as the seventh and sixth most important competitive attribute at the port respectively. Contrary to this rating, reputation was regarded by a small number of WFs as being the third most important competitive attribute. The respondents were of the opinion that reputation had a low rating of importance as pointed out in Table 4-11.

	N	lost importa	Int		Least important			
Respondents	1	2	3	4	5	6	7	8
VMs	0.00%	2.24%	12.35%	14.60%	11.23%	20.22%	26.96%	12.40%
PAs	4.03%	7.25%	10.48%	12.09%	12.90%	19.35%	20.16%	13.74%
WFs	8.88%	15.55%	28.88%	28.88%	13.33%	2.22%	2.26%	0.00%

Table 4-11 Rating of reputation

Training (VMs Q10.1.7, PAs Q10.1.7, WFs Q7.1.7)

According to the survey, a small percentage of the VMs and PAs indicated training was regarded as the least important competitive attribute. A few of the WFs rated it as being the sixth most important. A small number of VMs, PAs and no WFs were of the opinion that it was the most important. Consensus amongst the respondents was that training is viewed as the port's least important competitive attribute attribute as set out in Table 4-12.

Table 4-12	Rating of	training
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	Most important				Least important			
Respondents	1	2	3	4	5	6	7	8
VMs	1.12%	1.12%	1.12%	8.98%	17.97%	15.73%	17.97%	35.99%
PAs	14.51%	8.87%	4.83%	10.48%	10.48%	16.12%	21.77%	12.94%
WFs	0.00%	0.00%	4.44%	0.00%	13.33%	35.55%	26.66%	20.02%

4.4.2. Relationships between the nature of administration and competitive attributes

The respondents were asked to indicate how they perceived the relationships between the nature of administration and the competitive attributes (cost, infrastructure, innovation, physical characteristics, quality, reputation, training and turnaround time) at the port of Durban.
4.4.2.1. Cost of port operations

Financial management at the port includes the charges, efficiency of cargo handling, delays in various departments, procurement process in relation to value for money cost and rental of port land.

Salient features of the cost of port operation

The survey showed that for the most part VMs felt that there were reasonable measures to reduce the port charges, whilst the majority of PAs differed and claimed that it would not be feasible to cut these charges any more at the port.

In spite of this, both VMs and PAs agreed that delays during certain port operations could be reduced even further. VMs indicated that in their opinion, the delays caused by pilotage during port operations had become more frequent since 2002. PAs did not agree with this and claimed these delays had actually been similar.

In addition, PAs largely felt that the procurement of supplies needed to be improved. The supporting details are:

Port charges

The VMs rated the port's charges against those of rival ports (Q3.1). According to the survey, most of the VMs felt that the charges at the port were similar to rival ports during the last three years. The rest were of the opinion these port charges were higher than at rival ports. Figure 4-2 shows that the

port of Durban's charges compare to those at rival ports since 2002.



Figure 4-2 Port charges

The respondents indicated if there are in their opinion reasonable measures to reduce charges at the port. The survey showed that a large percentage of the VMs (Q3.2) and PAs (Q3.1) felt that a reduction in the port's charges was still possible. A small number of the respondents were of the opinion that the port charges could not be reduced any more. These ratings of less costly charges at the port are highlighted in Table 4-13.

Table 4-13 Reduction of port charges

Respondents	Yes	No	Unsure
VMs	56.17%	37.07%	6.76%
PAs	45.16%	37.91%	16.93%

Good financial management

The VMs were asked to indicate how they rate the efficiency of selected port facilities. A large percentage of VMs (Q3.4.1) felt that efficiency during cargo handling at Durban's Car Terminal (DCART) had been similar since 2002. Only a small number of respondents felt it had become worse, whilst the rest felt it had improved. A large proportion of the respondents (Q3.4.2) indicated that in their opinion efficiency at DCONT had become worse since 2002; fewer

felt it had been similar and the rest indicated there had been improvements in this regard. The majority of the VMs (Q3.4.3) was of the opinion that efficiency at the gas, chemical and oil terminals had been similar during the previous three years. Most of the respondents (Q3.4.4) felt efficiency during the handling of general cargo had been similar over a three-year period. The efficiency during cargo handling activities needs improvement in the opinion of the respondents as illustrated in Table 4-14.

Description	Better	Similar	Worse
DCART	37.07%	59.55%	3.38%
DCONT	12.37%	37.07%	50.56%
Gas, chemical and oil	21.34%	75.28%	3.38%
General cargo	12.37%	58.42%	29.21%

Table 4-14 Efficiency during cargo handling

The VMs were asked to rate the efficiency of the port's facilities compared with rival ports. A large percentage of the respondents (Q3.5.1) felt the efficiency at DCART was better than what they had experienced at rival ports along the east coast of Southern Africa, whilst the rest felt it was similar. At the same time, a large proportion of the respondents (Q3.5.2) indicated that in their opinion efficiency at DCONT was worse than at rival ports. On the other hand, most of the VMs (Q3.5.3) felt efficiency of cargo handling at the port's gas, chemical and oil terminals was similar to that at other ports along the east coast of Southern Africa. The majority of the respondents (Q3.5.4) were of the impression that efficiency at the general cargo terminals was similar to that at

rival ports. Table 4-15 shows the efficiency levels at certain port facilities compared to rival ports.

Description	Better	Similar	Worse
DCART	43.82%	51.68%	4.50%
DCONT	14.61%	38.20%	47.19%
Gas, chemical and oil	24.71%	70.78%	4.51%
General cargo	13.48%	62.92%	23.60%

Table 4-15 Efficiency compared to rival ports

Delays during port operations

The respondents rated the length of delays during various activities at the port compared to rival ports. The survey showed that a large percentage of the VMs (Q6.3.1) and PAs (Q6.4.1) indicated that in their opinion the length of delays as determined by cargo availability at the port had been similar to rival ports along the east coast of Southern Africa. However, fewer VMs and PAs were of the opinion that the length of these delays was longer. Delays during cargo handling activities at the port are set out in Table 4-16.

Table 4-16 Length of delays due to cargo availability

Respondents	Shorter	Similar	Longer	Unsure
VMs	12.37%	51.68%	35.95%	0.00%
PAs	15.32%	48.38%	22.58%	13.72%

Most of the VMs (Q6.3.2) and PAs (Q6.4.2) felt that in their opinion the length of delays caused by industrial action at the port of Durban was similar to those at rival ports along the east coast of Southern Africa. A quarter of respondents shared the view that these delays were shorter than at

rival ports. The length of these delays was on par compared to those of rival ports as pointed out in Table 4-17.

Respondents	Shorter	Similar	Longer	Unsure
VMs	24.71%	74.15%	1.14%	0.00%
PAs	23.38%	55.64%	9.67%	11.31%

Table 4-17 Length of delays due to industrial action

The survey showed that a large proportion of the VMs (Q6.3.3) and PAs (Q6.4.3) felt the delays related to marine service were similar at the port than at its rivals. Fewer of the respondents felt these delays were longer than at rival ports. A smaller number thought that these delays were shorter. Table 4-18 highlights the length of delays during marine service.

Table 4-18 Length of delays during marine service

Respondents	Shorter	Similar	Longer	Unsure
VMs	14.62%	46.06%	39.32%	0.00%
PAs	16.12%	48.38%	25.80%	9.70%

According to the survey, a large percentage of the VMs (Q6.3.4) felt the length of delays such as pilotage at the port of Durban was longer than at rival ports. In spite of this, only a quarter of the PAs (Q6.4.4) indicated that in their opinion these delays were longer at rival ports along the east coast of Southern Africa. Contrary to this, most of the PAs were of the opinion these delays were similar to those at rival ports. The length of pilotage delays is set out in Table 4-19.

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Respondents	Shorter	Similar	Longer	Unsure
VMs	12.37%	34.83%	52.80%	0.00%
PAs	16.93%	50.00%	25.80%	7.27%

Most of the VMs (Q6.3.5) indicated that in their opinion the delays due to weather were longer at the port of Durban than at rival ports. Contrary to this, the majority of the PAs (Q6.4.5) disagreed with this and thought these delays were similar to those at rival ports. Table 4-20 points out the length of delays caused by weather at the port.

Table 4-20 Length of delays due to weather

Respondents	Shorter	Similar	Longer	Unsure
VMs	0.00%	26.97%	73.03%	0.00%
PAs	19.35%	66.12%	4.83%	9.70%

Procurement of supplies (PAs Q2.2.1 to Q2.2.3)

The respondents rated the procurement of supplies as determined by their quality, the delivery lapse rate and the value for money cost since 2002. A large percentage of the respondents indicated that in their opinion the procurement process at the port of Durban had become worse over the three-year period. Fewer PAs felt that it had been similar, whilst the remainder thought it had been better. Table 4-21 shows how the PAs considered the procurement of supplies since 2002.

Table 4-21 Procurement of supplies (PAs)

Description	Better	Similar	Worse
Quality	14.52%	37.90%	47.58%
Delivery lapse rate	11.30%	38.70%	50.00%
'Value for money' cost	14.52%	33.87%	51.61%

Rental costs (WFs Q3.1)

In response to the question (Q3.1), most of the WFs indicated that in their opinion the rental costs for port land were not market related. Figure 4-3

highlights that rental costs needs attention.



Figure 4-3 Rental costs

4.4.2.2. Innovative cargo handling operations

Opinions about innovation shown during selected areas of port operations, innovation compared to rival ports, encouragement of fresh ideas, changes to administration and selected port operations needing innovative improvements were recorded.

Salient features of innovative cargo handling operations

Most respondents believed that innovation could still be enhanced at the port, despite it having been rated as being similar to that at rival ports. The majority of VMs felt that there was room for improvement during selected operations at the port. They felt that innovative port operations pertaining to pilotage, tugs and craft needed the greatest amount of attention. The VMs mainly felt that the administration of these port operations was similar to rival ports. Most PAs also felt that there should be more innovation shown during selected port operations. They propose that the port's marine, container and general cargo handling operations lack the most innovation.

It was found that PAs felt more encouragement was still needed when creating new ideas to reduce traffic congestion at the port. They point out that this pertained more to vessels, which were delayed whilst waiting for safe access to the port and to traffic congestion surrounding DCONT. Nearly all WFs agreed that the administration of the port could still become more innovative when dealing with waterfront concerns. The supporting details are:

Innovative port administration (VMs Q2.4.1-Q2.4.6)

The VMs were asked if the administration needed to be improved during selected port operations. The survey highlights that most respondents were of the opinion that there needed to be a little improvement in port operations such as berthing, dredging, floating cranes and harbour launches. The majority showed that pilotage needed substantial improvement. A large proportion of the respondents indicated that in their opinion the tugs and craft needed substantial improvement. Table 4-22 illustrates the innovation of port administration during port operations.

Description	Substantial improvement	A little improvement	Undecided
Berthing	22.47%	65.16%	12.37%
Dredging	1.12%	74.15%	24.73%
Floating crane	5.61%	73.03%	21.36%
Harbour launches	20.22%	64.04%	15.74%
Pilotage	60.67%	26.96%	12.37%
Tugs and craft	46.06%	44.94%	9.00%

Table 4-22 Innovation during port operations

According to the survey, a large percentage of the VMs (Q5.1) felt innovation of administration port operations compared similarly to that experienced at rival ports along the east coast of Southern Africa. Not as many felt it was not quite

as good. Figure 4-4 shows the port's level of innovation compared to rival ports.



Figure 4-4 Innovation compared to rival ports

The PAs (Q5.1) considered the innovation displayed during selected port operations. It was found that most thought that there could be more innovation during marine and DCONT operations. A large proportion of the respondents felt a need for greater innovation during DCART, general cargo, railway sidings and gas, chemical and oil operations. According to the survey, there could be greater innovation during port operations as set out in Table 4-23.

Description	Yes	No	Do not know
Marine	73.38%	19.35%	7.27%
DCONT	68.54%	14.51%	16.95%
DCART	50.00%	25.00%	25.00%
Gas, chemical, oil	49.19%	29.03%	21.78%
General cargo	56.45%	23.38%	20.17%
Railway sidings	53.22%	20.96%	25.82%

Table 4-23 Innovation during port operations

The PAs (Q5.2) were asked if in their opinion, they were encouraged to develop fresh ideas to reduce traffic congestion during selected port operations. A small proportion of the respondents felt that they were never

encouraged to improve innovation during marine operations, DCONT, DCART, general cargo, gas, chemical and oil operations. A small percentage maintained that they sometimes were encouraged to give new ideas to improve congestion at the port. Table 4-24 points out that there could be better attempts to collect new ideas when reducing traffic congestion at the port.

 Table 4-24
 Fresh ideas during port operations

Description	Always	Never	Sometimes	Undecided
Marine operations	12.09%	40.32%	37.90%	9.69%
DCONT	11.29%	38.70%	31.45%	18.56%
DCART	10.48%	35.48%	31.45%	22.59%
Gas, chemical and oil	8.87%	37.09%	32.25%	21.79%
General cargo handling	10.48%	34.67%	32.25%	22.60%

The survey highlights that nearly all WFs (Q4.1) indicated that in their opinion the port of Durban's administration, matters relating to waterfront facilities, could be more innovative as illustrated in Figure 4-5.



Figure 4-5 Administration of waterfront facilities

Improved port operations

It was found that a large proportion of the PAs (Q6.2) agreed that cargo handling and marine operations needs improvement at the port. Most were of

the opinion that improvement of emergency services, dry-docking and ship repairs was not necessary as shown in Table 4-25.

Description	Yes	No
Cargo handling	58.87%	41.13%
Dry-dock and ship repairs	38.70%	61.30%
Emergency services	14.51%	85.49%
Marine operations	58.87%	41.13%

Table 4-25 Improvement of port operations

According to the survey, most PAs (Q6.3) were uncertain if improvements had been budgeted for, during next three to five years in port operations such as cargo handling, emergency services, marine operations, dry-dock and ship repairs as set out in Table 4-26.

Table 4-26 Budgets to selected port operations

Description	Yes	No	Sometimes	Uncertain
Cargo handling	39.51%	2.41%	2.41%	55.67%
Dry-dock and ship repairs	16.12%	5.64%	0.84%	77.40%
Emergency services	10.48%	7.25%	3.24%	79.03%
Marine operations	35.84%	4.49%	0.00%	59.67%

The WFs (Q4.2) were asked if the PAs could become more innovative towards the waterfront concerns. It was shown that nearly all the respondents felt that greater innovation was needed to improve the customer service, parking arrangements, rental of port land and the social responsibility at the port as pointed out in Table 4-27.

Description	Substantial improvement	A little improvement	Undecided
Customer service	80.00%	17.77%	2.23%
Parking	91.11%	6.66%	2.23%
Rental	64.44%	28.88%	6.68%
Social responsibility	91.11%	6.66%	2.23%

Table 4-27 Innovative improvement to waterfront concerns

4.4.2.3. Good turnaround times

The turnaround times during selected port operations, frequency of delays caused by various factors and traffic congestion are as follows:

Salient features of turnaround times

VMs believed that the turnaround time of selected activities needs improvement at the port of Durban. They propose that the port's turnaround times they had experienced during cargo handling activities and marine operations needed to be re-examined. VMs indicated that in their opinion the length of these delays had been similar to that experienced at rival ports. They felt that the length of the port's turnaround times affected by cargo handling activities, marine operations, pilotage and weather needed to be made shorter. VMs also felt that the frequency of delays during marine operations and pilotage could be reduced. The supporting details are:

Port turnaround time (VMs Q6.1)

VMs considered the turnaround times of selected port activities at the port compared favourably to rival ports. Most respondents indicated that in their opinion the turnaround times during the port's cargo handling, emergency services, dry-docking and ship repairs were similar to that at rival ports. A large percentage of the respondents rated the marine operations at the port to

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be worse than at rival ports. Table 4-28 highlights the turnaround times of selected port activities.

Description	Improved	Similar	Worsened
Cargo handling	8.49%	48.82%	42.69%
Dry-docking and ship repair	12.37%	59.55%	28.08%
Emergency services	22.47%	75.28%	2.25%
Marine operations	11.25%	35.95%	52.80%

 Table 4-28
 Turnaround times of selected port activities

According to the survey, a large proportion of the VMs (Q6.2.1-Q6.2.5) indicated that in their opinion turnaround time during cargo handling and marine operations had become worse during the last three years. Most VMs felt that the port's emergency services, dry-docking and ship repairs had not changed over the three-year period. Contrary to this, a small number were of the opinion that there had been improvements in this regard. The port's turnaround times since 2002 are set out in Table 4-29.

Table 4-29 Turnaround times since 2002

Description	Improved	Similar	Worsened
Cargo handling	11.25%	40.44%	48.31%
Dry-docking and ship repair	10.12%	59.55%	30.33%
Emergency services	13.48%	76.40%	10.12%
Marine operations	8.99%	31.46%	59.55%

It was found that most of the PAs (66.12%) (Q6.1) thought the turnaround time of vessels needs improvement at the port of Durban. Fewer PAs (25.8%) contradicted this view.

Length of delays (VMs Q6.3)

In response to the question (Q6.3), the VMs rated the length of delays during selected port operations at the port of Durban on rival ports. The respondents

indicated that as far as they were concerned the length of delays experienced due to cargo availability, industrial action, marine operations and weather at the port was similar to that at rival ports. A large percentage of the VMs were of the opinion that delays caused during pilotage had been longer. Table 4-30 highlights the length of delays compared to rival ports.

Description	Longer	Similar	Shorter
Cargo availability	35.95%	51.68%	12.37%
Industrial action	1.14%	74.15%	24.71%
Marine operations	39.32%	46.06%	14.62%
Pilotage	52.80%	34.83%	12.37%
Weather	73.03%	26.97%	0.00%

 Table 4-30 Length of delays compared to rival ports

Frequency of delays

The VMs (Q6.5.1) were then asked to report the frequency of delays at the port of Durban in relation to rival ports. According to the survey, a large proportion of the respondents indicated that as far as they were concerned the frequency of delays due to industrial action and weather at the port were similar to rather ports. Most of the VMs felt those delays during pilotage had occurred more often. A large percentage of the respondents rated the frequency of delays due to the availability of cargo and marine operations as being similar to that at rival ports. The frequency of delays compared to those of rival ports is set out in Table 4-31.

Table 4-31	Frequency	y of delays	compared to	o rival ports
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Description	More often	Similar	Less often
Cargo availability	37.07%	55.05%	7.88%
Industrial action	4.49%	69.53%	25.98%
Marine operations	40.44%	52.80%	6.76%
Pilotage	55.06%	39.32%	5.62%
Weather	1.13%	78.65%	20.22%

Most of the respondents felt that the frequency of delays due to the availability of cargo, industrial action, and weather had been similar since 2002 (VMs Q6.6). In addition, the majority of the respondents were of the opinion that the frequency of delays due to pilotage had occurred more often. Table 4-32 illustrates the frequency of delays during the last three years as viewed by the VMs.

Description	More often	Similar	Less often
Cargo availability	37.07%	55.05%	7.88%
Industrial action	5.62%	59.55%	34.83%
Marine operations	41.57%	50.56%	7.87%
Pilotage	60.67%	33.70%	5.63%
Weather	1.14%	77.52%	21.34%

Table 4-32 Frequency of delays since 2002 (VMs)

The PAs (Q6.5) also rated the frequency of delays at the port since 2002. The survey showed that a large proportion of the respondents felt that the frequency of delays due to the availability of cargo, industrial action and marine operations had remained unchanged. Most respondents indicated that in their opinion delays due to pilotage and weather had been similar. Table 4-33 shows the opinions of PAs when considering the frequency of delays at the port during the past three years.

Table 4-33	Frequency	of delays	since	2002	(PAs)
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Description	More often	Similar	Less often	Uncertain
Cargo availability	19.35%	52.41%	15.32%	12.92%
Industrial action	9.67%	49.19%	29.03%	12.11%
Marine operations	21.77%	52.41%	17.74%	8.08%
Pilotage	25.80%	44.62%	17.74%	11.84%
Weather	1.61%	66.12%	21.77%	10.50%

Traffic congestion (VMs Q5.2)

It was found that most of the respondents indicated that in their opinion the traffic congestion during marine operations and DCONT at the port had not dropped since 2002. A large percentage of the respondents were of the opinion that traffic congestion during cargo handling operations had remained unchanged. The majority of the respondents indicated that in their opinion there had been a reduction in traffic congestion during DCART, gas, chemical and oil operations. The traffic congestion during port operations is set out in Table 4-34.

Description	Yes	No	Do not know
Marine operations	30.33%	67.41%	2.26%
DCONT	26.96%	68.53%	4.51%
DCART	61.79%	16.85%	21.36%
Gas, chemical and oil	73.03%	5.61%	21.36%
General cargo	41.57%	50.56%	7.87%

 Table 4-34 Traffic congestion during port operations

According to the survey, a small percentage of the PAs (Q5.2) felt whether they were not persuaded to develop fresh ideas to reduce traffic congestion during selected operations at the port. A few PAs added that they were sometimes encouraged to create new ideas to reduce traffic congestion during these port operations. A small number were of the opinion that they always were encouraged to develop new ideas. See Table 4-35.

Table 4-35	deas to	reduce	traffic	congestion
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Description	Always	Sometimes	Never	Do not know
Marine operations	8.06%	37.90%	40.32%	13.72%
DCONT	11.29%	31.45%	38.70%	18.56%
DCART	10.48%	31.45%	35.48%	22.59%
Gas, chemical and oil	8.87%	32.25%	37.09%	21.79%
General cargo	10.48%	32.25%	34.67%	22.60%

4.4.2.4. Modern port infrastructure

Salient features of port infrastructure

VMs mainly perceived that the infrastructure at the port of Durban was similar to that at rival ports along the east coast of Southern Africa. These research findings propose that the infrastructure used during cargo handling operations needs to be improved. PAs were mostly of the opinion that the infrastructure had improved the competitiveness of the port. VMs and PAs mostly agreed that the full use was not yet been made of some infrastructure, more particularly assistance provided to seafarers. The supporting details are:

Port infrastructure

VMs (Q8.1) were requested to rate the administration of selected port infrastructure compared to rival ports. A large percentage of the respondents felt that the administration at berthing, dry-docking and ship repairs was similar to that at rival ports. Slightly less thought that the administration during cargo handling and recreational facilities was similar. Table 4-36 illustrates the administration of the port facilities compared to rival ports.

Table 4-36 Administration of port facilities

Description	Better	Similar	Not as good
Berthing	34.83%	60.67%	4.50%
Cargo handling	21.34%	44.94%	33.72%
Dry-dock and ship repairs	25.84%	58.42%	15.74%
Recreational facilities	41.57%	44.94%	13.49%

Port equipment (VMs Q3.6, PAs Q3.4)

Most respondents were of the opinion that the Vessel Traffic Separation (VTS) sometimes provided accurate navigation information to seafarers at the port of

Durban as shown in Table 4-37.

Table 4-37 VTS usage

Respondents	Always	Sometimes	Never	Uncertain
VMs	28.08%	59.55%	12.37%	0.00%
PAs	30.64%	43.54%	8.87%	16.95%

4.4.2.5. Physical characteristics of the port

Salient features of physical characteristics

In the main, VMs felt that they were not encouraged to share their innovative ideas when improving the port's physical characteristics. This was perceived to be disturbing, as most PAs were of the opinion that the port's physical characteristics needed upgrades when handling the cargo volumes. They claim that the port's berthing space allocated to vessels to stow or discharge cargo, cargo handling facilities and navigational channels needed to be developed. WFs mostly felt that their patrons still needed better access to the port's waterfront facilities. They mostly perceived that the parking facilities and roads, which their patrons used to access their facilities, needs to be upgraded. The supporting details are:

Administration of physical characteristics

The VMs (Q9.2) were asked to indicate if in their opinion they were encouraged to suggest improvement to the physical characteristics of the port. Most of the VMs felt that seafarers were never encouraged to suggest improvements to

physical characteristics as illustrated in Figure 4-6.



Figure 4-6 Development of fresh ideas

The PAs (66.67%) (Q9.2) mostly indicated that in their opinion there was a need to improve the physical characteristics at the port of Durban. Some PAs (24.39%) felt no improvement was necessary.

PAs (Q9.3) identified which port facilities in their opinion needed to be improved. The survey showed that a large proportion of the respondents felt improvements were needed involving berthing facilities, cargo handling facilities and navigable channels used by vessels at the port of Durban. Most felt that the physical characteristics at the protected storage, road and rail did not need improvement. Table 4-38 highlights the physical characteristics at the port.

Table 4-38	Improvement of	f physical	characteristics
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Description	Yes	No
Berthing	45.97%	54.03%
Cargo handling	50.00%	50.00%
Protected storage	26.62%	73.38%
Safe navigable channels	46.78%	53.22%
Road and rail access	37.10%	62.90%

Physical characteristics and Waterfront Facilitators

The WFs (Q6.1) were asked to rate the physical characteristics of the port on their waterfront concerns. It was found that nearly all respondents felt that in their opinion the suitability for their business was average. Similarly, a large percentage thought that the access for their customers and harbour views was average. Fewer WFs rated their parking arrangements as being poor. Table 4-39 shows the opinions of the WFs when rating their concerns at the port.

Description	Good	Average	Poor
Access to customers	0.00%	46.66%	53.34%
Adequate parking	24.44%	35.55%	40.01%
Harbour views	42.22%	53.33%	4.45%
Suitability for business	4.44%	91.11%	4.45%

Table 4-39 Waterfront concerns

The WFs (68.89%) (Q6.3) mainly felt that physical characteristics at the port of Durban waterfront facilities compared similarly to rival ports along the east coast of Southern Africa, but some WFs felt the port of Durban's physical characteristics were better suited to their needs than at rival ports.

4.4.2.6. Quality at the port

The management of quality during selected port operations, improvement of quality since 2002, as well as the procurement process quality of supplies were considered.

Salient features of quality

Respondents perceived that the quality of administration involving selected port activities still needed improvement. The VMs believed that quality was lacking during cargo handling activities, marine service provided to calling vessels and the supplies, which were procured at the port. The supporting details are:

Quality of administration

It was found that a large percentage of the WFs (Q2.1) disagreed that the quality of administration at the port of Durban had improved during the past three years as set out in Figure 4-7.



Figure 4-7 Quality of administration

In response to the question (VMs Q2.1) whether the quality of administration during selected port operations at the port had improved since 2002 the replies of the VMs did not conform. It was found that most VMs felt that the administration of berthing operations, dredging and floating cranes were similar to what it was in 2002. Only a few felt that it had improved. Some VMs digressed and felt that in their opinion the quality of cargo handling were decidedly average. Table 4-40 illustrates how the VMs viewed the quality of port operations over the last three years.

Table 4-40	Quality of	port operations	since 2002 (VMs)
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Description	Better	Similar	Worse
Berthing operations	16.85%	62.92%	20.23%
Cargo handling	11.23%	48.31%	40.46%
Dredging	29.21%	69.66%	1.13%
Floating cranes	15.73%	75.28%	8.99%

In response to the question (Q9.1.2), relating to the quality of administration at the port's cargo handling facilities the replies varied from always satisfactory to never satisfactory. Most VMs and PAs rated the quality as sometimes satisfactory whilst a small number felt it was never satisfactory.

Quality of marine service

To the question (Q2.3), whether the quality of administration at the port of Durban could be improved there was a resounding 'yes'. A large percentage of the respondents answered yes. Only a few answered that the quality of marine service did not need improvement. Figure 4-8 shows the quality of marine service at the port.

Figure 4-8 Quality of marine service



The PAs (Q2.3) rated the quality of administration during selected port operations at the port since 2002. Most PAs were of the opinion that the administration during berthing operations, dredging, floating cranes, harbour launches, pilotage, tugs and craft had been average. Table 4-41 illustrates the

quality of administration of port operations during the past three years.

Description	Above average	Average	Below average
Berthing operations	16.93%	62.90%	20.17%
Dredging	24.19%	70.96%	4.85%
Floating cranes	18.54%	75.82%	5.64%
Harbour launches	18.54%	61.29%	20.17%
Pilotage	19.35%	61.29%	19.36%
Tugs and craft	18.54%	67.74%	13.72%

Table 4-41 Quality of administration of port operations since 2002

Procurement process (VMs Q2.2)

According to the survey, the majority of VMs felt that the quality, delivery lapse rate and value for money cost of supplies procured at the port of Durban had become worse in relation to rival ports since 2002 as highlighted in Table 4-42.

Table 4-42 Procurement of supplies at the port (VMs)

Description	Better	Similar	Worse
Quality	4.50%	35.95%	59.55%
Delivery lapse rate	6.75%	32.58%	60.67%
'Value for money' cost	2.24%	30.33%	67.43%

4.4.2.7. Port reputation

Survey participants rated the transparency of administration and business ethics at the port.

Salient features of reputation

VMs were of the opinion that the transparency of the port's administration was better than what they had encountered at rival ports. Contrary to this, most PAs and WFs felt that the port's administration needed to become more transparent. The survey showed that whilst most VMs felt that the port had a reputation of using good business ethics, most WFs disagreed and thought that the port's business ethics needed to be enhanced. The supporting details are:

Transparency of port administration

In the first instance, the VMs (57.3%) (Q7.2) mainly felt that the transparency of administration at the port of Durban sometimes compared well to that experienced at rival ports along the east coast of Southern Africa. Fewer VMs (17.98%) were of the opinion that transparency of administration was always better, whilst VMs (24.72%) felt it was never better. PAs (41.94%) (Q7.1) felt transparency port operations had remained the same since 2002. Few PAs (23.39%) considered that this had increased, whilst some PAs (34.67%) indicated it had decreased.

The survey showed that a large percentage of the WFs (53.33%) (Q5.2) felt the port of Durban had become less transparent in administration since 2002. Fewer WFs (40.00%) felt the transparency of administration remained the same.

The VMs (Q7.1) and WFs (Q5.1) were asked to rate the business ethics which the port employs. According to the survey, a large proportion of the VMs agreed that the port had adopted good business ethics. Contrary to this, the WFs disagreed and were of the opinion that the better business ethics needs improvement at the port. Table 4-43 illustrates the business ethics at the port.

Table 4-43	Business	ethics	at	the	port
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Respondents	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
VMs	1.12%	40.44%	25.84%	29.21%	3.39%
WFs	2.22%	24.44%	13.33%	48.88%	11.13%

Service delivery (VMs Q8.2)

The VMs felt the service delivery levels at the port compared similarly to rival ports. The respondents largely indicated that in their opinion the service encountered during berthing, cargo handling, dry-docking and ship repairs was similar to rival ports. A large percentage of the respondents felt that the service at the port's recreational facilities was similar to rival ports. The details are in Table 4-44.

Description	Better	Similar	Not as good
Berthing operations	35.95%	44.94%	19.11%
Cargo handling	22.47%	57.17%	20.36%
Dry-docking and ship repair	25.84%	56.17%	17.99%
Recreational facilities	43.82%	37.07%	19.11%

Table 4-44 Service delivery

4.4.2.8. Training of port employees

Survey participants showed how resources were made available for development of skills amongst port employees.

Salient features of training

PAs remained largely divided when attempting to determine if their skills were recognised at the port. PAs were also mainly unsure if there were sufficient resources to develop the skills of the port's employees. They felt that there still needed to be a greater resources allocated to develop the skills of port employees involved in the movement of cargo volumes and those who provided marine service. VMs believed that there was room for improving skills

during cargo handling activities and marine operations at the port. The supporting details are:

Skill development

According to the survey, a large percentage of the VMs (Q4.1) felt that the skills of port employees' during cargo handling and marine operations as being average since 2002. Most VMs also indicated that in their opinion the skills shown during emergency services, dry-dock and repair facilities had been average. Table 4-45 shows the skills of port employees.

Description	Above average	Average	Below average
Cargo handling	10.11%	53.93%	35.96%
Marine operations	13.48%	48.31%	38.21%
Emergency services	20.22%	75.28%	4.50%
Dry-dock and repair facilities	11.23%	64.04%	24.73%

Table 4-45 Skills development

The PAs (Q4.1) were asked to indicate whether there had been sufficient resources allocated to develop the port's employee skills cargo handling since 2002. It was found that a large proportion of the respondents were of the opinion that adequately trained port employees were used during cargo handling, marine operations, emergency services, dry-dock and ship repairs. Table 4-46 illustrates the allocation of training resources at the port.

Table 4-46 Training resources

Description	Yes	No	Do not know
Cargo handling	40.32%	40.32%	19.36%
Marine operations	47.58%	45.96%	6.46%
Emergency services	45.16%	31.45%	23.39%
Dry-dock and ship repair	37.90%	33.87%	28.23%

Most of the PAs (Q4.2) were of the opinion that their skills were fully recognised and utilised at the port of Durban. Slightly fewer claimed that their skills were not. The details are in Figure 4-9.





4.5. CONCLUSION

According to the survey, the majority of respondents were white and had mainly worked at the port for a significant number of years.

The field study produced research findings, which were valid for a variety of reasons. The research findings from VMs were significant, as these respondents had topical opinions on how the port of Durban scored in comparison with rival ports along the east coast of Southern Africa.

For the most part, VMs and PAs agreed on the rating of these competitive attributes at the port. The respondents rated costs, innovation and turnaround times as the most important competitive attributes at the port. The survey showed that the port's quality, reputation and training had been the least important competitive attributes.

The findings formed the basis of the interpretation.

CHAPTER 5

ANALYSIS AND INTERPRETATION

5.1. INTRODUCTION

An analysis of the survey results identified clearly those attributes that had the most impact on the competitive advantage held by the port of Durban. These were, ranked in order of importance, cost of port operations, innovative cargo handling operations, turnaround times, infrastructure, physical characteristics of the port, quality at the port, reputation of the port and rated the least important – training of port employees as is set out in Figure 5-1.



Figure 5-1 Rating of competitive attributes at the port of Durban

The following interpretation of these results is structured according to the impact, either negative or positive, that the attributes have on the administration of the port with the focus on the four most important competitive attributes. The relationships between the nature of administration and the competitive attributes are discussed.

5.2. INTERPRETATION OF RELATIONSHIPS

5.2.1. Cost of port operations

It was found in the survey that the cost of port operations was the most important competitive attribute at the port of Durban. Manipulation of these costs could have a significant impact on the port's competitive advantage. Reduced costs would make it more economical to use the port facilities and the PAs should endeavour to keep the cost of their port operations as low as possible compared to those of rival ports in order to improve the port's competitiveness. This is supported by Chang (2006b:110) who maintains that less costly port operations would improve the competitiveness of a port. Information relating to the port's charges over the past three years was therefore an important aspect of the research and questions regarding it were included in the survey. The most relevant areas were found to be port charges, the cost of pilotage and the procurement of supplies.

Port charges

It was necessary to establish how the port charges at the port of Durban compared to those of rival ports, and the VMs, who call frequently along the east coast of Southern Africa, were asked to do this. It was felt that they would be able to indicate if in their opinion there are reasonable measures that could be taken by the port administration to reduce the charges at the port of Durban compared to the other ports. The question how the port's charges compared to those of rival ports during the last three years showed that most of the respondents (VMs Q3.1.) were of the opinion that they had remained similar. Consequently, the finding that in the opinion of the respondents the port's charges and thereby increasing the competitive advantage held by the port of Durban.

Control over the costs was another matter, which was seen as very important concerning the reduction of costs. The question was posed as to whether, in the opinion of the respondents, the port administrators could take any action to

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reduce the port's charges. A large percentage of the VMs (Q3.2) thought that there are reasonable measures, which could be used to effect such a reduction. The opinion of the VMs concerning this matter was important because of their significant exposure to the conditions at the ports along the east coast of Southern Africa.

The PAs on the other hand did not have this sort of exposure and had to restrict their opinions only to conditions at the port of Durban. Only a small number of the PAs (Q3.1) felt that such measures to reduce the port's charges existed. This difference of opinion could be meaningful and should be investigated further.

Pilotage delays

The delays caused by pilotage manoeuvres also have a significant impact on the cost of port operations. Fewer or shorter delays would reduce costs. It has been suggested that such reduction would lower the overall charges to port users during port operations (Denton, 2006:33-37; Mongelluzzo, 2005a:1). For example, the skill of the harbour pilots who assist VMs when they manoeuvre their vessels within port limits, would influence the time taken and the type of marine service needed for these port operations to occur. The less skilled pilots would cause longer delays.

A certain amount of training and development of the pilots had to be brought into the argument and the situation over a period was covered. The responses differed. A large proportion of the VMs (Q6.4.4) with varying lengths of service thought that the delays resulting from pilotage at the port of Durban had increased over the last three years (Appendix J), whereas only a few PAs (Q6.4.4) shared the views of the VMs. Instead, a large proportion of the PAs felt that the length of these delays had remained the same over the past three years and that there was no significant improvement. The reason for this

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difference of opinion could be that the VMs and PAs approach these delays from different viewpoints.

There is also a difference of opinion on this matter between the management levels among the PAs. A significant proportion of UM thought these delays were shorter at the port during the previous three years. However, only a few MM and LM shared this view. The difference of opinion between the VMs and PAs and the relevant grades of the PAs could have significant consequences for the competitive advantage of the port and the reason for it should be established. There is, however, no doubt that control over the length of delays would reduce costs. Figure 5-2 illustrates the perceptions of the respondents with regard to the length of delays during pilotage.



Figure 5-2 Length of delays during pilotage

Procurement of supplies

A more economical procurement process to supply vessels at the port of Durban could also have a major impact on the costs of port operations. A less costly procurement process should reduce not only the cost of supplies but also overall charges and thereby improve the competitiveness of the port. Once again, it was necessary to relate the level of procurement costs to those at rival ports in order to comment on the status of the cost. The survey showed that a large portion of the PAs (Q2.2.1, Q2.2.3) perceived the quality and value for money cost of procurement of supplies at the port of Durban relative to other ports along the east coast of Southern Africa had worsened during the past three years (Appendix J). The consequence of this is that VMs are likely to satisfy their procurement requirements at rival ports to obtain better and less costly supplies. The finding that the procurement process has deteriorated since 2002 is disconcerting since it is a direct threat to the competitiveness of the port and should not be ignored. It should, however, be addressed and turned around so that instead of causing a loss, the cost of supplies could become more economical and that way increase the competitive advantage of the port of Durban.

There was also disagreement among the various levels of management of the procurement process at the port concerning the cost of the procurement process during the last three years. Whereas most of the MM and LM agreed that the cost of procurement had increased there were a few UM who agreed with this opinion. The disagreement at specifically the higher management levels could have a significant impact on future decisions relating to procurement costs and needs to be addressed.

Attributes with less impact on relationships

The survey showed that several findings relating to the cost of port operations had no significant relationship with the competitive attributes and therefore they were not included in the discussion at this point. These were infrastructure, physical characteristics of the port, quality at the port, reputation of the port and training of port employees.

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Impact on port operating costs summarised

The analysis of the findings of the research showed clearly that a reduction in the cost of the port operations was considered one of the main elements which could be used to increase the competitive advantage of the port of Durban. Several options for the reduction of operating costs are available to the PAs and could be used to increase the competitive advantage of the port. There are however, certain differences that need to be clarified before the measures could be fruitfully employed to reduce costs.

The VMs with their in-depth knowledge of port charges of rival ports along the east coast of Southern Africa felt that the port charges at the port of Durban were not competitive (VMs Q3.1). The reasons for this view should be examined and where necessary corrective action should be taken to make the port charges more competitive.

As it is, the VMs indicated that in their opinion there were measures that could be taken to reduce port charges (VMs Q3.2). However, the PAs disagreed and were of the opinion that this was not possible and that the charges at the port could not be reduced any further (PAs Q3.1). The disagreement between VMs and PAs concerning measures to reduce costs demands an intensive exercise to identify possible methods to make port operations more economical and thereby increase the competitive advantage of the port of Durban.

What appears to be unnecessary wastage are the delays caused by worsened pilotage skills, but not every one agrees that this is so. Both the VMs and the PAs feel that the skills have not worsened and have remained static over the last three years. This is such an obvious activity where cost reductions could occur and the situation should be examined to facilitate taking control over the pilotage and identifying ways of reducing the delays.

In addition to the unwanted charges associated with pilotage delays, the respondents were of the opinion that the procurement process has deteriorated during the last three years resulting in the increased cost of supplies (VMs, PAs Q2.2.1 and Q2.2.3). There is already an indication that the respondents felt that they did not get value for money when acquiring supplies at the port. As costs were rated as a significant competitive attribute, there is a likelihood that VMs may go elsewhere for less costly supplies at the more economical ports and this should be prevented by reducing the cost of supplies.

Future research is suggested to establish what corrective action could be taken to bring the port charges in line with those of the rival ports, and whether there are further measures that could be taken to reduce the port charges to make them more economical and how the procurement process could be modified to make the supplies less costly. The introduction of these measures would increase the competitive advantage of the port of Durban considerably.

5.2.2. Innovative cargo handling operations

The survey highlighted that innovation was the second most important competitive attribute at the port of Durban. Gallagher (2004:25), who maintains that increased innovation amongst port stakeholders would improve port competitiveness supports this. To gather the necessary information regarding this attribute the respondents were asked to cover matters related to traffic congestion, port operations and waterfront facilities.

Traffic congestion

Traffic congestion of any sort is a nightmare and this is particularly true at a harbour. A special effort needs to be undertaken to resolve this issue in order to maximise the competitive advantage of the port. For this reason, it is important to encourage the port employees and stakeholders to develop fresh ideas to reduce traffic congestion at the port. This is supported by Jackson and Maloni (2005b:16-36) who claim that greater innovation is needed to find

ways of reducing traffic jams at ports. This is critical, as it is held that traffic congestion at ports would be a problem for the next ten years (Cooke, 2002b:39).

Unfortunately, the survey showed it was perceived that not all the races and grades were encouraged equally to come up with new ideas (Q5.2.1-Q5.2.6) to reduce traffic congestion surrounding the port during marine, container handling, container handling, railway sidings, gas, chemical and oil operations (Appendix J). It was felt that coloureds and blacks are more encouraged to develop ideas to curb traffic congestion at the port than the whites and Asians are.

As for the grades, the majority of the PAs felt the UM were only sometimes encouraged to give new ideas. A large percentage of the MM and LM felt that their new ideas were not encouraged. This selective encouragement to come up with new ideas is disturbing and further research needs to be undertaken so that innovative corrective action could be developed for the sake of reducing costs. Figure 5-3 illustrates the responses with regard to reducing traffic congestion at the port.



Figure 5-3 Fresh ideas to reduce traffic congestion

Port operations

The survey showed that the VMs (Q2.4.1-Q2.4.6) were of the opinion that the quality of port operations involving berthing, dredging, floating cranes, harbour launches, tugs and craft at the port needed only minor improvement. On the other hand, the VMs felt that the quality of pilotage at the port needed substantial improvement. This perception of poor quality pilotage would support the opinion of the VMs that the pilotage delays have worsened which could then be ascribed to the poor training of the pilots. This matter should be addressed so that the costs of delays and other costs relevant to pilotage could
be reduced and thereby increase the competitive advantage of the port of Durban. Figure 5-4 illustrates the view that significantly more innovation is necessary during pilotage at the port.





Waterfront facilities

The survey revealed that most of the WFs (Q4.2.1-Q4.2.4) felt that Durban's port administrators could become substantially more innovative about matters relating to waterfront facilities involving customer service, parking arrangements, rental charges and social responsibility. This would indicate the view that there is a lack of consideration by the port administration for the communities which surround the port (Mongelluzzo, 2005a:1). The concerns about innovation with respect to the administration of waterfront facilities are

set out in Figure 5-5.



Figure 5-5 Innovative administration of waterfront facilities

Impact on innovative cargo handling summarised

As the second most important competitive attribute at the port of Durban, innovative cargo handling operations should be scrutinized to identify opportunities for innovation to take place. The research showed clearly that innovation during operations needs to be increased for matters such as traffic congestion, port operations and waterfront facilities. All these activities are important for the effective and most economical operating of the port of Durban. For instance, more innovative parking arrangements should draw a greater number of customers who visit the waterfront at the port. An increase in the number of customers should attract greater business opportunities for entrepreneurs among the WFs.

5.2.3. Turnaround times

Turnaround times were the third most important competitive attribute at the port. It is maintained that an increase in the frequency of delays would result in longer turnaround times and have a negative impact on the port's competitiveness (Denton, 2006:33-37). To establish the opinions of the respondents in connection with this, questions relating to turnaround times at the port were included in the survey.

To contribute to the competitive advantage of the port of Durban it would be necessary that turnaround times should be shorter compared to those of rival ports. Instead the survey showed that most VMs (Q6.5.1-Q6.5.5) felt the opposite and indicated that the frequency of delays caused by the unavailability of cargo, marine operations, industrial action and the weather encountered at the port had been similar compared to other ports along the east coast of Southern Africa. The finding that the frequency of delays was not less than at rival ports opens a further opportunity to reduce costs and increase the competitive advantage of the port of Durban.

This should be possible as it was established that in the opinion of the VMs the frequency of delays involving the port's cargo availability and marine service had been the same since 2002. The perception of the respondents about the frequency of delays during port operations is illustrated in Figure 5-6.



Figure 5-6 Perceptions about frequency of delays during port operations

It is important that where possible contingency procedures are introduced for the control of delays caused by the unavailability of cargo, marine operations, industrial action and the weather conditions at the port (VMs Q6.5.1-Q6.5.5). The management of the delays, the respondents felt, had not improved during the past three years (VMs Q6.6.1-Q6.6.5, PAs Q6.5.1-Q6.5.5).

Moreover, the VMs claimed that the delays caused by pilotage at the port had become worse (VMs Q6.6.4). This suggests that the PAs are not taking suitable measures to improve these delays, but this was denied by the PAs who were of the opinion that these delays had not become worse, but had remained the same during the same period (PAs Q6.5.4).

5.2.4. Port infrastructure

The survey showed that PAs should make best use of available equipment to improve the port's competitiveness. For this to be effective, it would be necessary to update a port's infrastructure (Mongelluzzo, 2005d:1).

VTS is one such piece of equipment and most of the VMs (Q3.6) felt seafarers were at times assisted with accurate navigation from the port's VTS. A large portion of the PAs (Q3.4) supported this view. It is however, important that such equipment be used on a regular basis. Figure 5-7 shows the responses to views of how the VTS equipment is utilised.



Figure 5-7 Use of VTS equipment

Optimum use by the PAs of this readily available equipment would boost the services offered to VMs whilst manoeuvring within port limits. For example, VMs would receive accurate and up-to-date information of vessel movements at the port, which would allow them to manage their operations more efficiently. This should lead to a more economical stay when they call at the port.

5.2.5. Physical characteristics of the port

The physical characteristics of a port were considered one of those attributes which had a lesser impact on its competitiveness. Nevertheless, the survey showed that PAs (Q9.2) could improve the physical characteristics of the port to satisfy the needs of port users. Chang (2006b:110) who claimed that a port's characteristics should be developed to meet the demands of sea transportation in the 21st century supports this. The responses relating to the improvement of the port's physical characteristics are set out in Figure 5-8.



Figure 5-8 Improvement of physical characteristics at the port

Although it was felt that more improvements are needed (PAs Q9.2) it was established that these upgrades should ensure that the port remains abreast of modern day demands and improve the competitiveness of the port.

5.2.6. Quality at the port

Although the research found that quality was the sixth most important competitive attribute at the port, quality still plays a role in the port's competitiveness. This is supported by Dreikorn and Zilbershtein (2005:189-195) who maintain that the quality of port operations ought to influence the competitiveness at a port.

The survey produced mixed results. Whereas most of the respondents felt that the quality of operations and administration were satisfactory there were some who felt that this was true only sometimes. This finding relates specifically to the quality of administration at the port's protected storage/warehouses and safe navigational channels (Appendix J). Most VMs felt that the quality of administration of safe navigation was always satisfactory. However, this view was not shared by the PAs, most of whom felt that quality was only sometimes satisfactory. The reason for this difference could be that the VMs and PAs approach the quality of administration from different viewpoints but the situation should be reviewed and corrective action taken if possible.

The various race groups and the levels of management also viewed quality differently. For instance, most of the blacks, a large proportion of the coloureds, a smaller number of Asians and fewer whites thought that the quality of administration was always satisfactory. Also the majority of UM thought the quality of administration was always favourable, whilst most MM and LM disagreed. These disparities could be because of different value sets but a closer examination is required since quality is the essence of the reputation of a port.

The perception of respondents with regard to the quality of administration at the port's protected storage/warehouses and navigable channels is set out in Figure 5-9.



Figure 5-9 Quality of administration at selected port operations

5.2.7. Port reputation

The respondents considered reputation the second least important competitive attribute at the port. This view is supported by Dreikorn and Zilbershtein (2005:189-195) who maintain that few organisations recognise the importance of reputation. The role of business ethics was covered in the questionnaire.

For this, the VMs (Q7.1) and WFs (Q5.1) rated the business ethics that they had encountered at the port of Durban. A large proportion of the WFs, mainly whites, disagreed that the port employs good business ethics. Slightly fewer VMs shared this view (Appendix J). The opinions of whether the port of

Durban employs good business ethics are shown in Figure 5-10.





The transparency of Durban's port operations was also covered and most respondents felt that it had stayed the same since 2002. The survey showed that 41.93% of the PAs (Q7.1) felt that the transparency of Durban's port operations had stayed the same since 2002. Figure 5-11 illustrates the views relating to the transparency of Durban's port operations during the last three years.





5.2.8. Training of port employees

Training was regarded as the least important competitive attribute at the port. Regardless of this low placing it is a fact that port employees have to be adequately trained to complete the activities involved during port operations (Perry, 2005:20). The respondents were asked to indicate whether in their opinion the level of their skills was recognised and this again produced a mixed result.

A small number of the males were of the opinion that their skills were not fully recognised and utilised, whereas most females felt strongly that they were recognised. The different cultures also disagreed on the recognition of skills. Most black PAs felt that their skills were fully recognised and utilised by administrators at the port of Durban, but only a few Asian, fewer white and no coloured PAs share this view. The survey also showed that the majority of UM felt that their skills are fully recognised and utilised at the port, compared to a relatively smaller number of MM and LM.

It seems that the recognition of PA's skills is dependant upon their gender, race and grade (PAs Q4.2). This needs to be examined as all employees' skills, regardless of demographic differences, should be recognised. This would ensure that optimum use is made of port employees involved during operations at the port. Better use of the port employees should improve the efficiency of the port and increase its competitiveness compared to rival ports.

5.3. ECOLOGICAL VALIDITY

The data gathered at the port of Durban are ecologically valid as they could be applied to other ports along the east coast of Southern Africa. Whilst this investigation's principal focus was at the port of Durban, port stakeholders around the world could consider the findings of the research valuable to their port operations.

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The investigation not only placed emphasis on the port's marine service provided to vessels, but included reference to various port stakeholders involved in cargo transportation at the port of Durban. The research would benefit the marine service used to assist vessels whilst they manoeuvre within the port's limits. Terminal operators and cargo transporters could use these research findings to enhance their cargo handling activities at the port.

5.4. CONCLUSION

The survey showed that costs, innovation and turnaround time are the most important competitive attributes at the port. The port's reputation, quality and physical characteristics rated as being only somewhat important. In the opinion of the respondents, training and reputation were the least important competitive attributes.

The survey established links between the nature of administration and these competitive attributes at the port of Durban. Administration of these could have a significant influence on the port's competitive advantage. For instance, the cost of port operations would be lowered by taking reasonable measures to reduce port charges, reducing the delays during pilotage and providing less costly supplies at the port.

Another way of improving the port's competitive advantage would be to encourage greater innovation to reduce traffic jams and improve the flow of activities during port operations. Better administration of the waterfront is also needed to attract a large number of customers to the port of Durban. Shorter turnaround times during port operations is an additional method that could make the port become more economical and competitive compared to those of rival ports along the east coast of Southern Africa. The port's competitive advantage could also be improved by taking corrective action to making optimum use of infrastructure, upgrading the physical characteristics of the port, improving the port's quality, enhancing the reputation of the port and ensuring that all port employees are properly trained.

The interpretation forms the focus of the concluding remarks.

CHAPTER 6

CONCLUSION

6.1. INTRODUCTION

In this chapter, the objectives of the research, the hypothesis and the literature guidelines will be reviewed in the light of the findings of the research. The achievements of each phase of the research process will be described and recommendations made for further research.

6.2. RESEARCH PROCESS REVISITED

The objectives of this research are specified in the problem formulation in paragraph 1.3 of the first chapter. The main objective was to investigate the impact of the nature of port administration on the competitiveness at the port of Durban, South Africa, in terms of the competitive attributes. The investigation was to be done by establishing the nature of port administration as determined by financial management and management processes. Supporting this was the identification and examination of the status of competitive attributes that affected the behavioural characteristics, port capabilities and port operations.

In order to gather the information it was in the first instance necessary to do an unstructured pilot study of the questionnaire to establish a framework for the content of the questionnaire and set guidelines for the survey questions. At the same time the availability of the respondents to complete the survey questionnaire was considered. The framework was used for the basis of the literature review and indicated that the competitive attributes needed to include the cost of port operations, innovative cargo handling operations, turnaround times, infrastructure, physical characteristics of the port, quality at the port, reputation of the port and the training of port employees. The target population was made up of those respondents who were at the port of Durban between 1 July 2005 and 30 August 2005, a total of 1 331. A sample size of 10% was needed for the research but in the end the sample size turned out to be 19.38% of the target population. The sample comprised 89 VMs, 124 PAs and 45 WFs.

It was necessary to draw up three different sets of questionnaires, one for each group of the VMs, PAs and WFs because of the differences in job specifications and demographics of the individual groups. There were, however, enough similar questions to be able to do cross tabulations and correlations of the findings. Structured questionnaires were compiled covering the demographics of the group and all the salient features of the different competitive attributes which the respondents were required to rate according to a prescribed scale. The findings of the survey were statistically analysed and the data carefully sifted to exclude dead elements. The findings of the research are set out in Chapter 4 and Chapter 5.

6.3. HYPOTHESIS

It was hypothesised that the nature of administration would have a significant impact on the competitiveness at the port of Durban. This was in fact not proved because the nature of the research was qualitative and this does not allow for absolute conclusions. It is, however, a view strongly held by the respondents that the nature of administration has a significant influence on the competitive attributes which have a cumulative effect on the competitiveness of the port.

6.4. MAIN CONCLUSIONS BASED ON RESEARCH OUTPUT

For most of the competitive attributes, it was necessary to compare the nature of the various attributes to that of rival ports. The exposure of the VMs to the rival ports stood the research in good stead because they were able to indicate if there was a similarity or not between the various components of the competitive attributes.

The perception of the respondents that the cost of port operations rated as the most important competitive attribute suggests that PAs should give particular attention to this area when strengthening the port's competitive advantage compared to rival ports. The respondents were of the opinion that measures to reduce the port's charges could be established and then implemented to improve the competitiveness of the port. The findings of the survey went on to indicate that a less costly procurement process would make the port become more economically attractive than rival ports.

The research showed that another way of reducing operational costs at the port would be to employ suitably trained pilots to assist VMs whilst they manoeuvre their vessels within the port's limits. For example, more innovative pilots could reduce the time taken for vessels to manoeuvre safely within the port, was a view held by the respondents.

The output of the research established that greater innovation is necessary in matters pertaining to traffic congestion, port operations and waterfront facilities if the port were to become more competitive than its rivals. For instance, faster turnaround times of vessels could be achieved by making optimum use of infrastructure, such as VTS, which is already installed at the port. Shorter turnaround times would therefore be one-step to improving the competitiveness of the port.

The respondents were also of the opinion that the port's physical characteristics needed improvement to keep abreast of the increases in the size of vessels which would call at the port of Durban to load or discharge cargo. Even if the port was physically suited to meet the demands of these VMs, the findings of the survey showed that the quality of administration needs addressing to ensure that cargo is stored satisfactorily during cargo handling activities at the port. The respondents were also of the opinion that operations that are more transparent would improve the reputation of the port compared to that of rival ports along the east coast of Southern Africa.

6.5. RECOMMENDATIONS FOR FUTURE RESEARCH

Further studies to improve the port's competitive advantage compared to that of rival ports along the east coast of Southern Africa should be undertaken. An investigation could establish if the port of Durban compares more favourably, similarly or less favourably than rival ports. This comparison would be a guideline to find out what areas need addressing in an attempt to improve the port's competitive advantage. Another study should examine the control of pilotage at the port to identify which areas need improvement in order to make the port more economically attractive to VMs that call at the port of Durban.

6.6. CONCLUSION

In light of the research objective, the investigation described the nature of administration, status of competitive attributes and the relationship between the nature of administration and these competitive attributes at the port. Although the study did not prove the hypothesis, it is held strongly that the nature of administration does indeed have a significant impact on the port's competitiveness. As a final point to this investigation, additional studies to find better ways of strengthening the competitiveness of the port of Durban compared to that of rival ports along the east coast of Southern Africa need undertaking.

REFERENCE LIST

- Armbruster, W. 2004. Space invaders. *Journal of commerce*, 30 August, 18-26.
- Baird, A. 2005. Optimising the container transhipment hub location in northern Europe. *Journal of transport geography* [online], (n.d.) 4. Available:
 ScienceDirect, Article Number 10.1016 [Accessed 14 September 2005].

Barnard, B. 2003. Baltic battle. Journal of commerce, 13 October, 21-23.

- Basso, L., Cortes, C., Jara-Diaz, S. and Martinez-Budria, E. 2002. A multioutput cost for the services of Spanish ports' infrastructure. *Transportation*, November, 419.
- Bennett, R. and Gabriel, H. 2001. Reputation, trust and supplier commitment: The case of shipping/seaport relations. *The journal of business and industrial marketing*, **16**(6/7): 424-438.
- Blackburn, B. 2004. Gulf section: Port of New Orleans poised for growth. *Maritime technology and Sname news*, **41**(40): 8.

Bonney, J. 2005. Paying for port security. *Journal of commerce*, 18 April, 1.

Buckmann, E. and Veldman, S. 2003. A model on container port competition:
An application for west European container hub-ports. *Maritime economics* and logistics, 5(1): 3. Budgets set to soar as coaching gains popularity. 2004. *Personnel today*, 3 February: 3.

Business: Ports in a storm. 2001. The economist, 359(8217): 57-58.

- Chang, Y. 2006a. A study on the motivation of ports seeking to diversify their operations in Taiwan. *Journal of American academy of business*, **8**(1): 106-112.
- Chang, Y. 2006b. The developing environment of logistic business in ports of Taiwan. *Journal of American academy of business*, **9**(1): 110.
- Clark, X., Dollar, D. and Micco, A. 2004. Port efficiency, maritime costs, and bilateral trade. *Journal of development economics*, **75**(2): 417-450.

Concise Oxford English Dictionary, 2004. New York: Oxford University Press.

- Connectivity and concessioning: a central theme for rail and harbours. 2005. *Maritime Southern Africa*, July/August, 15.
- Cooke, J. 2002a. The two faces of globalisation. *Logistics management*, **43**(7): 28-32.
- Cooke, J. 2002b. Circumnavigating the choke points. *Logistics management*, **44**(10): 39.
- Correia, C., Flynn, D., Uliana, E., and Wormald, M. 2003. *Financial management.* Juta and Company, Limited: Lansdowne.
- Cost-cutting steps may backfire. 2003. *New straits times to management times,* April, 80.

Cottril, K. 1997. Intermodal shipping at the crossroads. *The journal of business strategy*, **18**(3): 30-35.

Cottril, K. 1999. Sea changes. *Traffic world*, **259**(6): 26-30.

Cottril, K. 2000. Jumping the queues. *Traffic world Newark*, **264**(9): 18-19.

Coulter, M. and Robbins, S. 1999. *Management*. New Jersey: Prentice-Hall.

Daniels, S. Rosenbaum, D. and Rubin, D. 1997. There's a project in every port: Cities build up and dig down so they don't lose out on billions in international trade. *ENR*, **239**(19): 22.

David, F. 2001. Strategic management concepts. New Jersey: Prentice-Hall.

Demand justifies massive boost to Queensland rail, port capacity. 2005. *Platt's international coal report*, 29 August, 10.

Denton, D. 2006. Measuring relevant things. *Performance improvement*, **45**(3): 33-37.

Dismukes, J. 2004. Accelerate radical innovation now! *Research technology management*, **47**(5): 2-4.

Doi, M. Itoh, H. and Tiwari, P. 2003. Shipper's port and carrier selection behaviour in China: A discrete choice analysis. *Maritime economics and logistics*, **5**(1): 23.

Doost, R. 1989. Applying business methods and techniques. *Business*, **39**(4): 38.

- Dreikorn, M. and Zilbershtein, D. 2005. Waiting for the right q: Cultivating a quality culture that could keep the maritime industry afloat! *ASQ world conference on quality and improvement proceedings*, **59**: 189-195.
- Flor, D. and Defilippi, E. 2003. Port infrastructure: An access model for essential facility. *Maritime economics and logistics*, **5**(2): 116.
- Ford, N. 2005a. Ethiopia: Search on for new routes to the sea. *African business*, October, 58-59.
- Ford, N. 2005b. Where are the local shipowners? *African business*, November, 52-59.
- Foster, T. 2000. Eight steps to a European logistics strategy. *Logistics management and distribution*, **39**(4): 81-85.
- Garcia, B. and Kulick, B. 2005. Keeping up with cargo. *Industrial engineer.*, **37**(12): 37-41.

Gallagher, J. 2004. Railing at gridlock. *Traffic world*, 1 November, 25.

- Gouilielmos, M. 1997. An emergency decision support system online for captains. London: Institute of Mariners.
- Gray, R. and Panayides, P. 1999. An empirical assessment of relational competitive advantage in professional ship management. *Maritime policy management*, **26**(2): 11.
- Hadfield, W. 2005. Skills updating curbed by the cost of courses. *Computer weekly*, 20 September, 57.

- Harrington, L. and Knee, R. 1998. Maritime industry report: Changing with the times. *Transportation and distribution*, **39**(10): 97-109.
- Heller, R. 2003. *Movers and shakers. The brains and bravado behind business.* London: Bloomsbury Publishing Plc.
- Hoffmann, J., Micco, A., Pizzolitto, G., Sanchez, R., Sgut, M., and Wilmsmeier,
 G. 2003. Port efficiency and international trade: Port efficiency as a determinant of maritime transport costs. *Maritime economic and logistics*, 5(2): 199.
- Hoyle, B. 2003. European Union Port policy: The movement towards a long to term strategy. *Growth and change*, **34**(1): 133.
- Jackson, E. and Maloni, M. 2005a. North American container port capacity: An exploratory analysis. *Transportation journal*, **44**(3): 1-22.
- Jackson, E. and Maloni, M. 2005b. North American container port capacity: A literature review. *Transportation journal*, **44**(2): 16-36.
- Jones, G. 2001. *Organisational theory: text and cases.* New Jersey: Prentice-Hall.

Kwazulu-Natal Review: 2003. Port of Durban, January, 22.

Leach, P. 2004. Up, up, up. Journal of commerce, 22 November, 14-16.

Leach, P. 2005a. Shippers losing 'free' time. Traffic world, 18 April, 1.

Leach, P. 2005b. End of the lines. Journal of commerce, 27 June, 12-14.

Leach, P. 2005c. Aiming for no. 1. Journal of commerce, 19 December, 1.

Longwell, J. 2005. Beefing up on training. CRN, 29 August, 20-24.

Luxner, L. 2004a. Jammed. Journal of commerce, 4 October, 30-34.

Luxner, L. 2004b. Busted in Buenos Aires. *Journal of commerce*, 27 September, 36-40.

- Luxner, L. 2006. A new port takes shape. *Journal of commerce*, 13 February, 20-22.
- Many companies missing cost, efficiency opportunities. 1999. *Quality progress*, **32**(1): 14.
- Machalaba, D. 1998. Shipping companies select super port finalists. *Wall street journal*, December: A2.
- McCan, T. 2003. Can ports deliver the goods? *African business*, October (291): 32-34.
- McConville, J. 2001. Financial creativity. *Maritime policy & management,* **28** (1):1.

McFadden, M. 2006. Push for paperless. *Quality*, **45**(3): 40-44.

McGowan, M. 2005. The impact of shifting container cargo flows on regional demand for U.S. warehouse space. *Journal of real estate portfolio management*, **11**(2): 167-185.

- Mitroussi, K. 2003. The evolution of the safety of culture of IMO: A case of organisational change. *Disaster prevention and management*, **12**(1): 22.
- Mongelluzzo, B. 2003. Workin' on the night moves. *Journal of commerce*, 8 December, 14-16.
- Mongelluzzo, B. 2004a. High costs carry a price. *Journal of commerce*, November: 52-56.
- Mongelluzzo, B. 2004b. War on port congestion. *Journal of commerce*, March: 15.
- Mongelluzzo, B. 2004c. Box ships get plugged in. *Journal of commerce*, 19 April, 37.
- Mongelluzzo, B. 2005a. Inland handoff. Journal of commerce, 14 February, 1.
- Mongelluzzo, B. 2005b. Landside logjam. *Journal of commerce*, 28 February, 20-26.

Mongelluzzo, B. 2005c. Mega-vessels invade. Traffic world, 21 March, 1.

- Mongelluzzo, B. 2005d. Winning combination. *Journal of commerce*, 23 May, 1.
- Mongelluzzo, B. 2005e. A peek at the peak. *Journal of commerce*, 27 June, 16-18.
- Nevin, T. 1998. Hub of the southern universe. *African business*, July/August, 27-28.

Nevin, T. 2001. Billion rand expansion. *African business*. April: 33.

- Newman, P. 1996. Giving our maritime trade more muscle. *Macleans*, **109**(16): 54.
- Norris, S. and Ogunbiyi, C. 2003. Letting the crown jewels fall into private hands: A case study of the Maputo port project. *Journal of structured and project finance*, **9**(2): 48.
- Notteboom, T. 2002. Consolidation and contestability in the European container handling industry. *Maritime policy and management*, **29** (3): 257.
- Notteboom, T. and Winkelmans, W. 2001. *Structural changes in logistics: how will port authorities face the challenge?* [online]. Available from: http://www.tandf.co.uk/journals [accessed 19 November 2003].
- Peat, A. 2005a. Global pressure will force down costs. *Freight and trading weekly special feature*, July: 2.
- Peat, A. 2005b. Harbour carriers predict ongoing crisis for DCT. *Freight and trading weekly*, 29 July: 10.
- Peisley, T. 2005. P&O opts for early start. *International cruise and ferry review*, Autumn: 136-137.
- Perry, D. 2005. Training: have your say. Commercial motors, 202(5154): 20.
- Prada, P. and Rapoza, K. 2004. Stuck at the crossroads. *Latin trade*, **12**(10): 36-39.

- Quinn, J. 2002. European ports tackle congestion. *Logistics management,* **44**(11): E67-E68.
- Quinn, J. 2005. North American ports: Add value, and the cargo will come. *Logistics management*, **44** (5): 71-75.
- Robinson, R. 2002. Ports as elements in value to driven chain systems: the new paradigm. *Maritime policy and management*, **29** (3): 244.
- Scholten, W. 1997. Competitive European infrastructure. *Logistics spectrum*, **31**(2): 21-22.
- Schwartz, B. 1998. Competitive pressure drives forwarders. *Transportation and distribution*, **39**(2): 99-103.
- Shari, C. 1997. Forget image it's your reputation that matters. *Industry week*, **246**(3): 13-16.
- Stauffer, T. 2006. Underused Mexican port hopes to increase business with Arizona, *Transport topics*, 9 January, 14-15.
- Stinnard, M. 2004. Shipping problems in Brazil hamper stone exports to U.S. *Stone World Troy*, **21**(10): 196-197.

Stopford, M. 2000. *Maritime economics*. Cornwall: TJ International Limited.

South Africa. 2002. *General Notice*. (Notice No. 1409 of 2002.) Government Gazette no. 23715:8 August.

- Talley, W. 2000. Ocean container shipping: impacts of a technological improvement. *Journal of economic issues.* **34**(4): 937.
- The South African Ports Yearbook 2004, 2003. Norfolk: Compass Publications Limited
- Thomas, K. 1999. Salalah Port: A vision realised. *Middle East,* January: 37-40.
- Todd, D. 2003. Ore ports and port competition. *Journal of transport history*, **24**(1): 22.
- Trepins, D. 2002. Record growth drives expansion at Europe's top ports. *Logistics management*, **44**(3):E66-E67.
- Treven, S. 2006. Human resources management in the global environment. *Journal of American academy of business*, **8**(1): 120-125.
- Trunick, P. 2006. Some shippers are peaking early. Logistics today, 11.
- Van Niekerk, H. 2005. Port reform and concessioning in developing countries. *Maritime economics and logistics*, **7**(2): 141-155.
- Wade, J. 2004. Hard times on the Rhine. *Risk management*, **51**(1): 38.
- Walker, B. 2005. Deep division over a storm in the ports. *Regeneration and renewal*, 19 August, 14.
- Wang, J. 2000. Management of human error in shipping operations. *Professional safety*, **45**(10): 23.

Ward, T. 2004. Don't low-ball US port throughput. *Journal of commerce*, 17 May, 43.

Weiskott, M. 1999. Birthing room. *Plants, sites and parks*, **26**(2): 34-38.

Wilner, F. 1998. Maritime traffic jam? Traffic world, 255(6): 10.

Winds of change. 1997. Business Korea, 14(2): 26-27.

Woellert in Washington, L. 1998. Seeking a deep harbor: Ports are racing to satisfy the needs of new mega ships. *Business week*, September: 131.

Yarnell, P. 1999. Port administration and integrated coastal management under the Canada Marine Act in Vancouver, British Columbia, and Canada. *Coastal management*, **27**(4): 343.

Appendix A: Survey questionnaire - VMs

APPENDIX A: PAGE 1

SURVEY QUESTIONNAIRE					7.1	
Kindly tick which of the follow	wing statements/que	estions ar	e applicable to y	ou.		
1. DEMOGRAPHICS 1.1. What is your gender?						
	FEMALE					
1.2. What is your race?		T				
BLACK ASI	IAN		JRED			OTHER ₅
1.3. How old are you?						
<20 YEARS 20-29YEA	ARS 30-39 YE	ARS	40-49 YEARS	50-5 ₅	59 YEARS	>59 YEARS
1.4. How long have you beer	n calling at the port	of Durbar	n?			
<1 YEAR 1-5	YEARS	6-10 YI	EARS	11-20 Y	EARS	>20 YEARS
1.5. How many times a year	r do you call at the p	port of Du	ırban?	4		5
1/ANNUM	2-5/A	NNUM			>5/ANNUM	
2. QUALITY 2.1. Compared to the years	before 2002, the qu	uality of D	urban's port adn	ninistratio	n in the followin	q areas is:
DESCRIPTIÓN		BETTE	R	SIMILA	R	WORSE
2.1.1. BERTHING OPERATIONS				_		
2.1.2. CARGO HANDLING OPERATIONS						
2.1.3. DREDGERS						
	IS THES					
2.1.6. PILOTAGE						
2.1.7. TUGS/CRAFT						

2.2. Rate the quality of supplies after 2002, at the port of Durban, relative to other ports along the east coast of Southern Africa in the following categories:

	DESCRIPTION	BETTER	SIMILAR	WORSE
		1	2	3
2.2.1.	THE QUALITY OF SUPPLIES IS			
2.2.2.	THE LAPSE RATE FOR DELIVERY OF SUPPLIES IS			
2.2.3.	THE 'VALUE FOR MONEY' COST OF SUPPLIES IS			

2.3. Could the quality of marine service, at the port of Durban, be improved?

YES	NO	DON'T KNOW
1	2	3

2.4. If "yes", indicate which categories need to be improved:

	DESCRIPTION	SUBSTANTIALLY	A LITTLE	DON'T KNOW
		1	2	3
2.4.1.	BERTHING OPERATIONS			
2.4.2.	DREDGERS			
2.4.3.	FLOATING CRANES			
2.4.4.	HARBOUR LAUNCHES			
2.4.5.	PILOTAGE			
2.4.6.	TUGS/CRAFT			

3. COSTS

3.1. Since 2002, compared to other ports along the east coast of Southern Africa, Durban's port charges are, on average:

HIGHER	SIMILAR	LOWER
1	2	3

3.2. Are there any reasonable measures that could be taken to reduce port charges at the port of Durban?

YES	NO	DON'T KNOW
1	2	3

3.3. If "yes", what measures could be taken?

3.4. Rate the efficiency at the port of Durban's cargo handling facilities since 2002 in the following categories:

	DESCRIPTION	BETTER	SIMILAR	WORSE
		1	2	3
3.4.1.	CAR TERMINAL			
3.4.2.	CONTAINER TERMINAL			
3.4.3.	GAS, CHEMICAL AND OIL TERMINAL			
3.4.4.	GENERAL CARGO TERMINAL			

3.5. Rate the efficiency at the port of Durban's cargo handling facilities compared to other ports along the east coast of Southern Africa in the following categories:

	DESCRIPTION	BETTER	SIMILAR	WORSE
		1	2	3
3.5.1.	CAR TERMINAL			
3.5.2.	CONTAINER TERMINAL			
3.5.3.	GAS, CHEMICAL AND OIL TERMINAL			
3.5.4.	GENERAL CARGO TERMINAL			

3.6. Does the Vessel Traffic System (VTS) provide accurate navigation information during port operations at the port of Durban?

ALWAYS	SOMETIMES	NEVER
1	2	3

4. TRAINING

4.1. Rate the skills observed of employees at the port of Durban since 2002 in the following categories:

	DESCRIPTION	ABOVE AVERAGE	AVERAGE	BELOW AVERAGE
		1	2	3
4.1.1.	CARGO HANDLING			
4.1.2.	MARINE OPERATIONS			
4.1.3.	EMERGENCY SERVICES			
4.1.4.	DRY-DOCK/SHIP REPAIR FACILITIES			

5. INNOVATION

5.1. Compared to other ports along the east coast of Southern Africa, rate the innovation of Durban's port

administrators in terms of port operations.

BETTER	SIMILAR	NOT AS GOOD
1	2	3

5.2. Since 2002, has traffic congestion surrounding the port of Durban been reduced in the following categories?

	DESCRIPTION	YES	NO	DON'T KNOW
		1	2	3
5.2.1.	MARINE OPERATIONS			
5.2.2.	CONTAINER HANDLING OPERATIONS			
5.2.3.	CAR HANDLING OPERATIONS			
5.2.4.	GAS, CHEMICAL AND OIL OPERATIONS			
5.2.5.	GENERAL CARGO HANDLING OPERATIONS			
5.2.6	BAIL WAY SIDINGS			

6. TURNAROUND TIME6.1. Compared to other ports along the east coast of Southern Africa the turnaround time of the following categories has:

	DESCRIPTION	IMPROVED	REMAINED THE SAME	WORSENED
		1	2	3
6.1.1.	CARGO HANDLING			
6.1.2.	DRY-DOCK/SHIP REPAIR FACILITIES			
6.1.3.	EMERGENCY SERVICES			
6.1.4.	MARINE OPERATIONS			

6.2. Since 2002, the turnaround time in the following categories has:

	DESCRIPTION	IMPROVED	REMAINED THE SAME	WORSENED
		1	2	3
6.2.1.	CARGO HANDLING			
6.2.2.	DRY-DOCK/SHIP REPAIR FACILITIES			
6.2.3.	EMERGENCY SERVICES			
6.2.4.	MARINE OPERATIONS			

6.3. The length of delays as a result of the following factors at the port of Durban compared to those in other ports along the east coast of Southern Africa are:

	DESCRIPTION	LONGER	SIMILAR	SHORTER
		1	2	3
6.3.1.	CARGO AVAILABILITY			
6.3.2.	INDUSTRIAL ACTION			
6.3.3.	MARINE SERVICE			
6.3.4.	PILOTAGE			
6.3.5.	POOR WEATHER			

6.4. Since 2002, the length of delays as a result of the following factors at the port of Durban are:

	DESCRIPTION	LONGER	SIMILAR	SHORTER
		1	2	3
6.4.1.	CARGO AVAILABILITY			
6.4.2.	INDUSTRIAL ACTION			
6.4.3.	MARINE SERVICE			
6.4.4.	PILOTAGE			
6.4.5.	POOR WEATHER			

6.5. Compared to other ports along the east coast of Southern Africa, the frequency of delays as a result of the following factors at the port of Durban occur:

	DESCRIPTION	MORE OFTEN	SIMILAR	LESS OFTEN
		1	2	3
6.5.1.	CARGO AVAILABILTY			
6.5.2.	INDUSTRIAL ACTION			
6.5.3.	MARINE SERVICE			
6.5.4.	PILOTAGE			
6.5.5.	POOR WEATHER			

6.6. Since 2002, the frequency of delays as a result of the following factors at the port of Durban occur:

	DESCRIPTION	MORE OFTEN	SIMILAR	LESS OFTEN
		1	2	3
6.6.1.	CARGO AVAILABILTY			
6.6.2.	INDUSTRIAL ACTION			
6.6.3.	MARINE SERVICE			
6.6.4.	PILOTAGE			
6.6.5.	POOR WEATHER			

7. REPUTATION

7.1. Seafarers believe that the port of Durban employs good business ethics.

STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
1	2	3	4	5

7.2. Durban's port administrators manage port operations more transparently than nearby ports along the east coast of Southern Africa.

ALWAYS	SOMETIMES	NEVER
1	2	3

8. INFRASTRUCTURE

8.1. Rate the administration of the following facilities relative to other ports along the east coast of Southern Africa:

	DESCRIPTION	BETTER	SIMILAR	NOT AS GOOD
		1	2	3
8.1.1.	BERTHING ARRANGEMENTS			
8.1.2.	CARGO HANDLING FACILITIES			
8.1.3.	DRY-DOCK/SHIP REPAIR FACILITIES			
8.1.4.	RECREATIONAL FACILITIES			

8.2. Rate the service of the following facilities relative to other ports along the east coast of Southern Africa:

	DESCRIPTION	BETTER	SIMILAR	NOT AS GOOD
		1	2	3
8.2.1.	BERTHING ARRANGEMENTS			
8.2.2.	CARGO HANDLING FACILITIES			
8.2.3.	DRY-DOCK/SHIP REPAIR FACILITIES			
8.2.4.	RECREATIONAL FACILITIES			

9. PHYSICAL CHARACTERISTICS

9.1. Rate the quality of the port of Durban's administration in the following categories:

	DESCRIPTION	ALWAYS SATISFACTORY	SOMETIMES SATISFACTORY	NEVER SATISFACTORY
		1	2	3
9.1.1.	BERTHING FACILTIES			
9.1.2.	CARGO HANDLING FACILITIES			
9.1.3.	PROTECTED STORAGE/WAREHOUSES			
9.1.4.	SAFE NAVIGABLE CHANNELS			
9.1.5.	ACCESS FOR ROAD/RAIL TRANSPORTERS			

9.2. Seafarers are encouraged to suggest improvements to Durban's physical characteristics in terms of improving port operations.

ALWAYS	SOMETIMES	NEVER
1	2	3

ATTRIBUTES
 10.1. Rate the port of Durban's competitive attributes, from "most important (1)" to "least important (8)", in the following categories:

10.1.1.	COSTS
10.1.2.	INFRASTRUCTURE
10.1.3.	INNOVATION
10.1.4.	PHYSICAL CHARACTERISTICS
10.1.5.	QUALITY
10.1.6.	REPUTATION
10.1.7.	TRAINING
10.1.8.	TURAROUND TIME

Appendix B: Survey questionnaire - PAs

APPENDIX B: PAGE 1

SURVEY QUEST	SURVEY QUESTIONNAIRE											
Kindly tick which	Kindly tick which of the following statements/questions are applicable to you.											
1. DEMOGRAPH 1.1. What is your	HICS gende	er?										
MALE 1			FEMA 2	LE								
1.2. What is your	race?	?										
BLACK		ASI 2	AN		COLOI 3	JRE	Ð	W	HITE			OTHER ₅
1.3. How old are	ou?											
<20 YEARS 20-29YEARS		30-39 YEARS 40		40 4	0-49 YEARS 50-5		59 YEARS		>59 YEARS			
1.4. How long hav	/e you	been	employ	ved at the p	ort of Du	rban	ı?		5			
<1 YEAR		1-5 \ 2	YEARS	6-10 YEA		EAF	RS	11-20 YEARS			>20 YEARS	
1.5. At what level	1.5 At what level are you graded?											
UPPER MANAGEMENT MIDDLE M			LE MANAC						OR OFFICER			
2. QUALITY 2.1. Since 2002, the change to administration at the port of Durban has been:												
FAVOURABLE				NO C 2	HANGE					UNFAV	OURA	BLE

2.2. Compared to the years before 2002, rate the following factors relating to the procurement process at the port of Durban:

	DESCRIPTION	BETTER	SIMILAR	WORSE
		1	2	3
2.2.1.	THE QUALITY OF SUPPLIES IS			
2.2.2.	THE LAPSE RATE FOR DELIVERY OF SUPPLIES IS			
2.2.3.	THE 'VALUE FOR MONEY' COST OF SUPPLIES IS			

2.3. Since 2002, how do you rate the quality of marine service at the port of Durban?

	DESCRIPTION	ABOVE AVERAGE	AVERAGE	BELOW AVERAGE
		1	2	3
2.3.1.	BERTHING OPERATIONS			
2.3.2.	DREDGERS			
2.3.3.	FLOATING CRANES			
2.3.4.	HARBOUR LAUNCHES			
2.3.5.	PILOTAGE			
2.3.6.	TUGS/CRAFT			

3. COSTS

3.1. Are there any reasonable measures that could be taken to reduce port charges at the port of Durban?

YES	NO	DON'T KNOW
1	2	3

3.2. If "yes", what measures could be taken?

3.3. Since 2002, the port of Durban's container handling operations have:

	WORSENED
	3

3.4 Does the Vessel Traffic System (VTS) provide accurate navigation information during port operations at the port of Durban?

ALWAYS	SOMETIMES	NEVER	DON'T KNOW
1	2	3	4

4. TRAINING4.1. Since 2002, are sufficient resources available to allow port employees to get training to develop their skills in the following categories?

	DESCRIPTION	YES	NO	DON'T KNOW
		1	2	3
4.1.1.	CARGO HANDLING			
4.1.2.	MARINE OPERATIONS			
4.1.3.	EMERGENCY SERVICES			
4.1.4.	DRY-DOCK/SHIP REPAIR FACILITIES			

4.2. I believe that my skills are fully recognised and utilised by Durban's port administrators.

STRONGLY	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
1	2	3	4	5

5. INNOVATION

5.1. Could Durban's port administrators be more innovative in the manner that they handle operations in the following categories?

	DESCRIPTION	YES	NO	DON'T KNOW
		1	2	3
5.1.1.	MARINE OPERATIONS			
5.1.2.	CONTAINER HANDLING OPERATIONS			
5.1.3.	CAR HANDLING OPERATIONS			
5.1.4.	GAS, CHEMICAL AND OIL OPERATIONS			
5.1.5.	GENERAL CARGO HANDLING OPERATIONS			
5.1.6.	RAILWAY SIDINGS			

5.2. Are fresh ideas encouraged when attempting to reduce traffic congestion surrounding the port of Durban in the following categories?

	DESCRIPTION	ALWAYS	SOMETIMES	NEVER	DON'T KNOW
		1	2	3	4
5.2.1.	MARINE OPERATIONS				
5.2.2.	CONTAINER HANDLING OPERATIONS				
5.2.3.	CAR HANDLING OPERATIONS				
5.2.4.	GAS, CHEMICAL AND OIL OPERATIONS				
5.2.5.	GENERAL CARGO HANDLING OPERATIONS				
5.2.6.	RAILWAY SIDINGS				

6. TURNAROUND TIME

6.1. Could the port of Durban's vessel turnaround time be improved?

YES	NO	DON'T KNOW
1	2	3

6.2. If "yes", which categories need to be improved?

	DESCRIPTION	NEEDS IMPROVEMENT
		1
6.2.1.	CARGO HANDLING	
6.2.2.	DRY-DOCK/SHIP REPAIR FACILITIES	
6.2.3.	EMERGENCY SERVICES	
6.2.4.	MARINE OPERATIONS	

6.3. Are improvements in the following budgeted to be addressed within the next 3-5 years?

	DESCRIPTION	YES	NO	DON'T KNOW
		1	2	3
6.3.1.	CARGO HANDLING FACILITIES			
6.3.2.	DRY-DOCK/SHIP REPAIR FACILITIES			
6.3.3.	EMERGENCY FACILITIES			
6.3.4.	MARINE OPERATIONS			

6.4. Compared to the years before 2002, how would you describe the current length of delays at the port of Durban because of the following factors?

	DESCRIPTION	SHORTER DELAYS	ABOUT THE SAME	LONGER DELAYS	DON'T KNOW
		1	2	3	4
6.4.1.	CARGO AVAILABILITY				
6.4.2.	INDUSTRIAL ACTION				
6.4.3.	MARINE SERVICE				
6.4.4.	PILOTAGE				
6.4.5.	POOR WEATHER				

6.5. Compared to the years before 2002, how would you describe the current frequency of delays at the port of Durban because of the following factors?

	DESCRIPTION	LESS OFTEN	SAME	MORE OFTEN	DON'T KNOW
		1	2	3	4
6.5.1.	CARGO AVAILABILITY				
6.5.2.	INDUSTRIAL ACTION				
6.5.3.	MARINE SERVICE				
6.5.4.	PILOTAGE				
6.5.5.	POOR WEATHER				

7. REPUTATION

7.1. Since 2002, the transparency of Durban's port operations has:

INCREASED	STAYED THE SAME	DECREASED
1	2	3

8. INFRASTRUCTURE

8.1. Does the port of Durban's infrastructure make it more competitive than other ports along the east coast of Southern Africa?

YES	NO	DON'T KNOW
1	2	3

8.2. If "no", which of the following need to be improved?

	DESCRIPTION	SUBSTANTIALLY	A LITTLE	DON'T KNOW
		1	2	3
8.2.1.	BERTHING ARRANGEMENTS			
8.2.2.	CARGO HANDLING FACILITIES			
8.2.3.	DRY-DOCK/SHIP REPAIR FACILITIES			
8.2.4.	RECREATIONAL FACILITIES			

8.3. Have these improvements been budgeted for in the next 3-5 years?

	DESCRIPTION	YES	NO	DON'T KNOW
		1	2	3
8.3.1.	BERTHING ARRANGEMENTS			
8.3.2.	CARGO HANDLING FACILITIES			
8.3.3.	DRY-DOCK/SHIP REPAIR FACILITIES			
8.3.4.	RECREATIONAL FACILITIES			

9. PHYSICAL CHARACTERISTICS

9.1. Rate the port of Durban's quality of administration in the following categories:

	DESCRIPTION	ALWAYS SATISFACTORY	SOMETIMES SATISFACTORY	NEVER SATISFACTORY
		1	2	3
9.1.1.	BERTHING FACILITIES			
9.1.2.	CARGO HANDLING FACILITIES			
9.1.3.	PROTECTED STORAGE/WAREHOUSES			
9.1.4.	SAFE NAVIGABLE CHANNELS			
9.1.5.	ACCESS FOR ROAD/RAIL TRANSPORTERS			

9.2. Could Durban's port administrators improve the harbour's physical characteristics?

YES	NO	DON'T KNOW
1	2	3

9.3. If "yes", which categories need to be improved?

	DESCRIPTION	NEEDS IMPROVEMENT
		1
9.3.1.	BERTHING FACILITIES	
9.3.2.	CARGO HANDLING FACILITIES	
9.3.3.	PROTECTED STORAGE/WAREHOUSES	
9.3.4.	SAFE NAVIGABLE CHANNELS	
9.3.5.	ACCESS FOR ROAD/RAIL TRANSPORTERS	

9.4. If "yes", are these improvements budgeted for in the next 3-5 years?

	DESCRIPTION	YES	NO	DON'T KNOW
		1	2	3
9.4.1.	BERTHING FACILITIES			
9.4.2.	CARGO HANDLING FACILITIES			
9.4.3.	PROTECTED STORAGE/WAREHOUSES			
9.4.4.	SAFE NAVIGABLE CHANNELS			
9.4.5.	ACCESS FOR ROAD/RAIL TRANSPORTERS			

 ATTRIBUTES
 10.1. Rate the port of Durban's competitive attributes, from "most important (1)" to "least important (8)", in the following categories:

10.1.1	COSTS	
10.1.2.	INFRASTRUCTURE	
10.1.3.	INNOVATION	
10.1.4.	PHYSICAL CHARACTERISTICS	
10.1.5.	QUALITY	
10.1.6.	REPUTATION	
10.1.7.	TRAINING	
10.1.8.	TURAROUND TIME	
Appendix C: Survey questionnaire - WFs

APPENDIX C: PAGE 1

SURVEY QUESTI	ONNAIR f the follo	R <u>E</u> owing stat	ements/au	estions ar	e api	olicable to v	ou.			API	PENDIX C. PAGE I
1. DEMOGRAPH 1.1. What is your of	ICS jender?	g			<u> </u>	<u> </u>					
MALE		FEMA 2	LE								
1.2. What is your r	ace?			T							
BLACK	A\$ 2	SIAN		COLOU 3	JRED)	WHITE			OTHER ₅	
1.3. How old are ye	ou?		r								
<20 YEARS	20-29YI	EARS	30-39 YE ₃	ARS	40- 4	49 YEARS	50-59 YEARS			>59 YEARS 6	
1.4. How long have	e you wo	rked at th	e port of Du	urban?							
<1 YEAR	1- 2	5 YEARS		6-10 YI з	EAR	6	11-2 4	20 YI	EARS		>20 YEARS ₅
2. QUALITY 2.1. Since 2002, t	he qualit	y of admir	nistration at	the port	of Du	ırban has in	nprov	red.			
STRONGLY AGREE	A	GREE		UNCERTAIN		N	DISAGREE		EE		STRONGLY DISAGREE
1	2			3			4			5	
2.2. Durban's port impact on my busi	adminis ness.	trators ke	ep the loca	I commu	nity i	nformed of	upco	ming	events/act	tivitie	es that may have an
ALWAYS			SOM 2	SOMETIMES			NEVER 3				
2.3. It appears that Durban.	at vessel	s are mo	ved safely	when ent	tering	or leaving	the h	harbo	our entranc	e ch	annel at the port of
MOSTLY		SOM	IETIMES	MES		SELDOM			DON'T KNOW		
3. COSTS 3.1. Is your rental	market r	elated?									
YES		NO 2	NO 2			DON'T KNC		NOM	W		
3.2. I feel that the	3.2. I feel that the Millennium Tower, located near the entrance to the port of Durban, is a significant landmark and										
STRONGLY AGREE	A(GREE				N	DISAGREE			STRONGLY DISAGREE	

4. INNOVATION

4.1. Could Durban's port administrators be more innovative in matters relating to waterfront facilities?

YES	NO	DON'T KNOW
1	2	3

4.2. If "yes", indicate how the following categories could be improved in terms of innovation:

	DESCRIPTION	SUBSTANTIALLY	A LITTLE	DON'T KNOW
		1	2	3
4.2.1.	CUSTOMER SERVICE			
4.2.2.	PARKING ARRANGEMENTS			
4.2.3.	RENT			
4.2.4.	SOCIAL RESPONSIBILITY			

5. REPUTATION

5.1. I believe that the port of Durban employs good business ethics.

STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
1	2	3	4	5

5.2. Since 2002, administration at the port of Durban has become:

MORE TRANSPARENT	REMAINED THE SAME	LESS TRANSPARENT
1	2	3

6. PHYSICAL CHARACTERISTICS

6.1. Indicate the appropriate block regarding the location made available to Durban's waterfront facilitators:

		GOOD	AVERAGE	POOR
		1	2	3
6.1.1.	ACCESSIBLITY TO CONSUMERS			
6.1.2.	ADEQUATE PARKING FACILITIES			
6.1.3.	HARBOUR VIEWS			
6.1.4.	SUITABLILTY FOR YOUR BUSINESS			

6.2. Durban's port administrators are considerate towards waterfront facilities that might be affected by alterations to the physical characteristics of the port.

ALWAYS	SOMETIMES	NEVER	DON'T KNOW
1	2	3	4

6.3. Rate the suitability of the port of Durban's physical characteristics to waterfront facilities compared to other ports along the east coast of Southern Africa.

BETTER	SIMILAR	NOT AS GOOD	DON'T KNOW
1	2	3	4

7. ATTRIBUTES

7.1. Rate the port of Durban's competitive attributes, from "most important (1)" to "least important (8)", in the following categories:

7.1.1.	COSIS	
7.1.2.	INFRASTRUCTURE	
7.1.3.	INNOVATION	
7.1.4.	PHYSICAL CHARACTERISTICS	
7.1.5.	QUALITY	
7.1.6.	REPUTATION	
7.1.7.	TRAINING	
7.1.8.	TURAROUND TIME	

Appendix D: Letter of authority

1



CORPORATE SERVICES -DURBAN Suite 205 Ocean Terminal Building PO Box 1027 Durban 4000 Telephone: (031) 361-8711 Facsimile: (031) 361-8906

To: Mr. Garth Tosh Tug Master – Marine Operations

Date: 25 April 2005

Authority to conduct research in NPA Durban

Dear Garth,

I record that you have formally approached the NPA – Port of Durban to assist as a site for conducting research into your thesis on the efficiency of administration systems in the Port. We met to discuss the scope and possible risks associated with this exercise.

Given our strong focus on development and innovation, you are hereby granted permission to proceed with your research. At the same time, please be sensitive to issues of confidentiality and the dissemination of any findings that could impact the NPA negatively. Your findings will be for academic purposes and restricted to yourself and the Durban Institute of Technology. Written approval will be required from the NPA for any other purpose / use of the information.

You are required to share your findings and recommendations with the Port EXCO upon completion so that there may be additional value added from your work. Best wishes with your thesis.

Kind regards

Ricky Bhikraj - CS-Manager

Appendix E: Structure of survey questionnaire

APPENDIX E: PAGE 1

QUESTION	DESCRIPTION	VMs	PAs	WFs
	Demographics			
VMs 1.1, PAs	What is your gender?	Х	Х	Х
1.1, WFs 1.1				
VMs 1.2, PAs	What is your race?	Х	Х	Х
1.2, WFs 1.2				
VMs 1.3, PAs	How old are you?	Х	Х	Х
1.3, WFs 1.3				
VMs 1.4	How long have you been calling at the port of Durban?	Х		
VMs 1.5	How many times a year do you call at the port of Durban?	Х		
PAs 1.4	How long have you been employed at the port of Durban?		Х	
PAs 1.5	At what level are you graded?		Х	
WFs 1.4	How long have you worked at the port of Durban?			Х
	Quality			
VMs 2.1	Compared to the years before 2002, the quality of Durban's port	Х		
	administration in the following areas is (Berthing operations, cargo			
	handling operations, dredgers, floating cranes, harbour launches, pilotage			
	and tugs/craft).			
PAs 2.1	Since 2002, rate the change to administration at the port of Durban.		Х	
WFs 2.1	Since 2002, the quality of administration at the port of Durban has			Х
	improved.			
WFs 2.2	Durban's port administrators keep the local community informed of			Х
	upcoming events/activities that may have an impact on my business.			
VMs 2.2, PAs	Rate the quality of supplies after 2002, at the port of Durban, relative to	Х	Х	
2.2	other ports along the East coast of Southern Africa in the following			
	categories: (Quality of supplies, lapse rate for delivery, 'value for money'			
	cost).			
WFs 2.3	It appears that vessels are moved safely when entering or leaving the			Х
	harbour entrance channel at the port of Durban.			
VMs 2.3	Could the quality of marine service, at the port of Durban, be improved?	X		
VMs 2.4, PAs	If "yes", indicate which categories need to be improved: (Berthing	Х	Х	
2.3	operations, dredgers, floating cranes, narbour launches, pilotage, and			
	lugs/crait).			
	Cusis	v		
VIVIS 3.1	Africe 2002, compared to other ports along the East coast of Southern	^		
	Are there any reasonable measures that could be taken to reduce part	v	v	
2 1 VIVIS 3.2, FAS	charges at the port of Durban?	^	^	
0.1 W/Fe 3.1	ls vour rental market related?			Y
WFs 3.2	I feel that the Millennium Tower, located near the entrance to the port of			X
W1 3 0.2	Durban is a significant landmark and improves the beauty of the			~
	landscape			
PAs 3.3	Since 2002, rate the port of Durban's container handling operations.		Х	
VMs 3.4	Bate the efficiency at the port of Durban's cargo handling facilities since	Х		
	2002 in the following categories: (Car. container, general cargo, gas.	~		
	chemical and oil terminals).			
VMs 3.5	Rate the efficiency at the port of Durban's cargo handling facilities	Х		
	compared to other ports along the East coast of Southern Africa in the			
	following categories: (Car, container, general cargo, gas, and chemical			
	and oil terminals).			
VMs 3.6, PAs	Does the Vessel Traffic System (VTS) provide accurate navigation	Х	Х	
3.4	information during port operations at the port of Durban?			

.../Training

	DESCRIPTION	VMs	PAs	WFs
NOMBER	Training			ł
VMs 4.1, PAs 4.1	Rate the skills observed of employees at the port of Durban since 2002 in the following categories: (Cargo handling, marine operations, emergency services, dry-dock/ship repair facilities).	Х	Х	
PAs 4.2	I believe that my skills are fully recognised and utilised by Durban's port administrators.		X	
WFs 4.1	Could Durban's port administrators be more innovative in matters relating to waterfront facilities?			Х
WFs 4.2	If "yes", indicate how the following categories could be improved in terms of innovation: (Customer service, parking arrangements, rent and social responsibility).			X
VMs 5.1	Compared to other ports along the East coast of Southern Africa, rate the innovation of Durban's port administrators in terms of port operations.	Х		
VMs 5.2	Since 2002, has traffic congestion surrounding the port of Durban been reduced in the following categories? (Marine, container handling, car handling, general cargo handling, railway, gas chemical and oil operations).	X		
PAs 5.1	Could Durban's port administrators be more innovative in the manner that they handle operations in the following categories? (Marine, container, car, general cargo, railway, gas, chemical and oil operations).		X	
PAs 5.2	Are fresh ideas encouraged when attempting to reduce traffic congestion surrounding the port of Durban in the following categories? (Marine, container, car, general cargo, railway, gas, chemical and oil operations).		X	
VMs 6.1	Compared to other ports along the East coast of Southern Africa the turnaround time of the following categories has (Cargo handling, dry-dock/ship repair facilities, emergency services, marine operations).	Х		
PAs 6.1	Could the port of Durban's vessel turnaround time be improved?		Х	
PAs 6.2	If "yes", which categories need to be improved? (Cargo handling, dry- dock/ship repair, emergency services and marine operations).		Х	
PAS 6.3	Are improvements in the following budgeted to be addressed within the next 3 to 5 years? (Cargo handling, dry-dock/ship repair, emergency services and marine operations).		Х	
VMs 6.2	Since 2002, the turnaround time in the following categories has: (Cargo handling, dry-dock/ship repair facilities, emergency services, marine operations).	Х		
VMs 6.3	The length of delays because of the following factors at the port of Durban compared to those in other ports along the East coast of Southern Africa is (Cargo availability, industrial action, marine service, pilotage, poor weather).	Х		
VMs 6.4, PAs 6.4	Since 2002, the length of delays because of the following factors at the port of Durban is (Cargo availability, industrial action, marine service, pilotage, poor weather).	X	X	
VMs 6.5	Compared to other ports along the East coast of Southern Africa, the frequency of delays because of the following factors at the port of Durban occurs: (Cargo availability, industrial action, marine service, pilotage and poor weather).	X		
VMs 6.6, PAs 6.5	Since 2002, the frequency of delays because of the following factors at the port of Durban occurs: (Cargo availability, industrial action, marine service, pilotage and poor weather).	X	X	

.../Reputation

QUESTION NUMBER	DESCRIPTION	VMs	PAs	WFs
	Reputation			
VMs 7.1	Seafarers believe that the port of Durban employs good business ethics.	Х		
WFs 5.1	I believe that the port of Durban employs good business ethics.			Х
PAs 7.1	Since 2002, rate the transparency of Durban's port operations.		Х	
WFs 5.2	Since 2002, administration at the port of Durban has become:			Х
VMs 7.2	Durban's port administrators manage port operations more transparently	Х		
	than nearby ports along the East coast of Southern Africa.			
	Infrastructure			
VMs 8.1	Rate the administration of the following facilities relative to other ports along the East coast of Southern Africa: (Berthing arrangements, cargo handling facilities, dry-dock/ship repair facilities and recreational facilities).	Х		
VMs 8.2	Rate the service of the following facilities relative to other ports along the East coast of Southern Africa: (Berthing arrangements, cargo handling facilities, dry-dock/ship repair facilities and recreational facilities).	Х		
PAs 8.1	Does the port of Durban's infrastructure make it more competitive than other ports along the East coast of Southern Africa?		Х	
PAs 8.2	If "no", which of the following need to be improved? (Berthing, cargo handling, dry-dock/ship repair and recreational facilities).		Х	
PAs 8.3	Have these improvements been budgeted for in the next 3-5 years? (Berthing, cargo handling, dry-dock/ship repair and recreational facilities).		Х	
	Physical characteristics			l
VMs 9.1, PAs 9.1	Rate the quality of the port of Durban's administration in the following categories: (Berthing facilities, cargo handling facilities, protected storage/warehouses, safe navigable channels and suitable access for road/rail transporters).	х	X	
WFs 6.1	Indicate the appropriate block regarding the location made available to Durban's waterfront facilitators: (Accessibility to consumers, adequate parking facilities, harbour views, suitability for your business).			Х
WFs 6.2	Durban's port administrators are considerate towards waterfront facilities that might be affected by alterations to the physical characteristics of the port.			X
WFs 6.3	Rate the suitability of the port of Durban's physical characteristics to waterfront facilities compared to other ports along the East coast of Southern Africa.			Х
VMs 9.2	Seafarers are encouraged to suggest improvements to Durban's physical characteristics in terms of improving port operations.	Х		
PAs 9.2	Could Durban's port administrators improve the harbour's physical characteristics?		Х	
PAs 9.3	If "yes", which categories need to be improved? (Berthing, cargo handling, protected storage/warehouses, safe navigable channels and access for road/rail transporters).		Х	
PAs 9.4	If "yes", are these improvements budgeted for in the next 3-5 years? (Berthing, cargo handling, protected storage/warehouses, safe navigable channels and access for road/rail transporters).		Х	
VMs 10.1, PAs 10.1, WFs 7.1	Attributes Rate the port of Durban's competitive attributes, from "most important (1)" to "least important (8)", in the following categories: (Costs, infrastructure, innovation, physical characteristics, quality, reputation, training and turnaround time).	Х	Х	Х

Appendix F: Research findings - VMs

APPENDIX F: PAGE 1

1. DEMOGRAPHICS

1.1. What is your gender?

MALE	FEMALE
1	2
100.00%	0.00%

1.2. What is your race?

BLACK	ASIAN	COLOURED	WHITE	OTHER
1	2	3	4	5
0.00%	7.86%	0.00%	84.26%	7.88%

1.3. How old are you?

<20 YEARS	20-29YEARS	30-39 YEARS	40-49 YEARS	50-59 YEARS	>59 YEARS
1	2	3	4	5	6
0.00%	0.00%	2.24%	19.10%	62.92%	15.74%

1.4. How long have you been calling at the port of Durban?

<1 YEAR	1-5 YEARS	6-10 YEARS	11-20 YEARS	>20 YEARS
1	2	3	4	5
0.00%	3.37%	13.48%	44.94%	38.21%

1.5. How many times a year do you call at the port of Durban?

1/ANNUM	2-5/ANNUM	>5/ANNUM
1	2	3
1.14%	52.27%	46.59%

2. QUALITY

2.1. Compared to the years before 2002, the quality of Durban's port administration in the following areas is:

	DESCRIPTION	BETTER	SIMILAR	WORSE
		1	2	3
2.1.1.	BERTHING OPERATIONS	16.85%	62.92%	20.23%
2.1.2.	CARGO HANDLING OPERATIONS	11.23%	48.31%	40.46%
2.1.3.	DREDGERS	29.21%	69.66%	1.13%
2.1.4.	FLOATING CRANES	15.73%	75.28%	8.99%
2.1.5.	HARBOUR LAUNCHES	16.85%	73.03%	10.12%
2.1.6.	PILOTAGE	10.11%	41.57%	48.31%
2.1.7.	TUGS/CRAFT	15.73%	52.80%	31.46%

2.2. Rate the quality of supplies after 2002, at the port of Durban, relative to other ports along the east coast of Southern Africa in the following categories:

	DESCRIPTION	BETTER	SIMILAR	WORSE
		1	2	3
2.2.1.	THE QUALITY OF SUPPLIES IS	4.50%	35.95%	59.55%
2.2.2.	THE LAPSE RATE FOR DELIVERY OF SUPPLIES IS	6.75%	32.58%	60.67%
2.2.3.	THE 'VALUE FOR MONEY' COST OF SUPPLIES IS	2.24%	30.33%	67.43%

2.3. Could the quality of marine service, at the port of Durban, be improved?

YES	NO	DON'T KNOW
1	2	3
77.53%	20.22%	2.25%

2.4. If "yes", indicate which categories need to be improved:

	DESCRIPTION	SUBSTANTIALLY	A LITTLE	DON'T KNOW
		1	2	3
2.4.1.	BERTHING OPERATIONS	22.47%	65.16%	12.37%
2.4.2.	DREDGERS	1.12%	74.15%	24.73%
2.4.3.	FLOATING CRANES	5.61%	73.03%	21.36%
2.4.4.	HARBOUR LAUNCHES	20.22%	64.04%	15.74%
2.4.5.	PILOTAGE	60.76%	26.96%	12.37%
2.4.6.	TUGS/CRAFT	46.06%	44.94%	9.00%

 COSTS
Since 2002, compared to other ports along the east coast of Southern Africa, Durban's port charges are, on average:

HIGHER	SIMILAR	LOWER
1	2	3
24.72%	75.28%	0.00%

3.2. Are there any reasonable measures that could be taken to reduce port charges at the port of Durban?

YES	NO	DON'T KNOW
1	2	3
56.17%	37.07%	6.76%

3.3. If "yes", what measures could be taken...

3.4. Rate the efficiency at the port of Durban's cargo handling facilities since 2002 in the following categories:

	DESCRIPTION	BETTER	SIMILAR	WORSE
		1	2	3
3.4.1.	CAR TERMINAL	37.07%	59.55%	3.38%
3.4.2.	CONTAINER TERMINAL	12.37%	37.07%	50.56%
3.4.3.	GAS, CHEMICAL AND OIL TERMINAL	21.34%	75.28%	3.38%
3.4.4.	GENERAL CARGO TERMINAL	12.37%	58.42%	29.21%

3.5. Rate the efficiency at the port of Durban's cargo handling facilities compared to other ports along the east coast of Southern Africa in the following categories:

	DESCRIPTION	BETTER	SIMILAR	WORSE
		1	2	3
3.5.1.	CAR TERMINAL	43.82%	51.68%	4.50%
3.5.2.	CONTAINER TERMINAL	14.61%	38.20%	47.19%
3.5.3.	GAS, CHEMICAL AND OIL TERMINAL	24.71%	70.78%	4.51%
3.5.4.	GENERAL CARGO TERMINAL	13.48%	62.92%	23.60%

3.6. Does the Vessel Traffic System (VTS) provide accurate navigation information during port operations at the port of Durban?

ALWAYS	SOMETIMES	NEVER
1	2	3
28.08%	59.55%	12.37%

4. TRAINING

4.1. Rate the skills observed of employees at the port of Durban since 2002 in the following categories:

	DESCRIPTION	ABOVE AVERAGE	AVERAGE	BELOW AVERAGE
		1	2	3
4.1.1.	CARGO HANDLING	10.11%	53.93%	35.96%
4.1.2.	MARINE OPERATIONS	13.48%	48.31%	38.21%
4.1.3.	EMERGENCY SERVICES	20.22%	75.28%	4.50%
4.1.4.	DRY-DOCK/SHIP REPAIR FACILITIES	11.23%	64.04%	24.73%

5. INNOVATION

5.1. Compared to other ports along the east coast of Southern Africa, rate the innovation of Durban's port administrators in terms of port operations.

BETTER	SIMILAR	NOT AS GOOD
1	2	3
11.24%	51.69%	37.07%

5.2. Since 2002, has traffic congestion surrounding the port of Durban been reduced in the following categories?

	DESCRIPTION	YES	NO	DON'T KNOW
		1	2	3
5.2.1.	MARINE OPERATIONS	30.33%	67.41%	2.26%
5.2.2.	CONTAINER HANDLING OPERATIONS	26.96%	68.53%	4.51%
5.2.3.	CAR HANDLING OPERATIONS	61.79%	16.85%	21.36%
5.2.4.	GAS, CHEMICAL AND OIL OPERATIONS	73.03%	5.61%	21.34%
5.2.5.	GENERAL CARGO HANDLING OPERATIONS	41.57%	50.56%	7.87%
5.2.6.	RAILWAY SIDINGS	43.82%	17.97%	38.21%

6. TURNAROUND TIME

6.1. Compared to other ports along the East coast of Southern Africa the turnaround time of the following categories has:

	DESCRIPTION	IMPROVED	REMAINED THE SAME	WORSENED
		1	2	3
6.1.1.	CARGO HANDLING	8.49%	48.82%	42.69%
6.1.2.	DRY-DOCK/SHIP REPAIR FACILITIES	12.37%	59.55%	28.08%
6.1.3.	EMERGENCY SERVICES	22.47%	75.28%	2.25%
6.1.4.	MARINE OPERATIONS	11.25%	35.95%	52.80%

6.2. Since 2002, the turnaround time in the following categories has:

	DESCRIPTION	IMPROVED	REMAINED THE SAME	WORSENED
		1	2	3
6.2.1.	CARGO HANDLING	11.25%	40.44%	48.31%
6.2.2.	DRY-DOCK/SHIP REPAIR FACILITIES	10.12%	59.55%	30.33%
6.2.3.	EMERGENCY SERVICES	13.48%	76.40%	10.12%
6.2.4.	MARINE OPERATIONS	8.99%	31.46%	59.55%

6.3. The length of delays as a result of the following factors at the port of Durban compared to those in other ports along the east coast of Southern Africa are:

	DESCRIPTION	LONGER	SIMILAR	SHORTER
		1	2	3
6.3.1.	CARGO AVAILABILITY	35.95%	51.68%	12.37%
6.3.2.	INDUSTRIAL ACTION	1.14%	74.15%	24.71%
6.3.3.	MARINE SERVICE	39.32%	46.06%	14.62%
6.3.4.	PILOTAGE	52.80%	34.83%	12.37%
6.3.5.	POOR WEATHER	73.03%	26.97%	0.00%

6.4. Since 2002, the length of delays as a result of the following factors at the port of Durban are:

	DESCRIPTION	LONGER	SIMILAR	SHORTER
		1	2	3
6.4.1.	CARGO AVAILABILITY	29.03%	49.43%	21.54%
6.4.2.	INDUSTRIAL ACTION	3.37%	65.16%	31.47%
6.4.3.	MARINE SERVICE	37.07%	52.80%	10.13%
6.4.4.	PILOTAGE	58.42%	33.70%	7.88%
6.4.5.	POOR WEATHER	2.24%	68.53%	29.23%

6.5. Compared to other ports along the east coast of Southern Africa, the frequency of delays as a result of the following factors at the port of Durban occur:

	DESCRIPTION	MORE OFTEN	SIMILAR	LESS OFTEN
		1	2	3
6.5.1.	CARGO AVAILABILTY	37.07%	55.05%	7.88%
6.5.2.	INDUSTRIAL ACTION	4.49%	69.53%	25.98%
6.5.3.	MARINE SERVICE	40.44%	52.80%	6.76%
6.5.4.	PILOTAGE	55.06%	39.32%	5.62%
6.5.5.	POOR WEATHER	1.13%	78.65%	20.22%

6.6. Since 2002, the frequency of delays as a result of the following factors at the port of Durban occur:

	DESCRIPTION	MORE OFTEN	SIMILAR	LESS OFTEN
		1	2	3
6.6.1.	CARGO AVAILABILTY	37.07%	55.05%	7.88%
6.6.2.	INDUSTRIAL ACTION	5.62%	59.55%	34.83%
6.6.3.	MARINE SERVICE	41.57%	50.56%	7.87%
6.6.4.	PILOTAGE	60.67%	33.70%	5.63%
6.6.5.	POOR WEATHER	1.14%	77.52%	21.34%

7. REPUTATION

7.1. Seafarers believe that the port of Durban employs good business ethics.

STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
1	2	3	4	5
1.12%	40.44%	25.84%	29.21%	3.39%

7.2. Durban's port administrators manage port operations more transparently than nearby ports along the east coast of Southern Africa.

ALWAYS	SOMETIMES	NEVER
1	2	3
17.98%	57.30%	24.72%

8. INFRASTRUCTURE

8.1. Rate the administration of the following facilities relative to other ports along the east coast of Southern Africa:

	DESCRIPTION	BETTER	SIMILAR	NOT AS GOOD
		1	2	3
8.1.1.	BERTHING ARRANGEMENTS	34.83%	60.67%	4.50%
8.1.2.	CARGO HANDLING FACILITIES	21.34%	44.94%	33.72%
8.1.3.	DRY-DOCK/SHIP REPAIR FACILITIES	25.84%	58.42%	15.74%
8.1.4.	RECREATIONAL FACILITIES	41.57%	44.94%	13.49%

8.2. Rate the service of the following facilities relative to other ports along the east coast of Southern Africa:

	DESCRIPTION	BETTER	SIMILAR	NOT AS GOOD
		1	2	3
8.2.1.	BERTHING ARRANGEMENTS	35.95%	44.94%	19.11%
8.2.2.	CARGO HANDLING FACILITIES	22.47%	57.17%	20.36%
8.2.3.	DRY-DOCK/SHIP REPAIR FACILITIES	25.84%	56.17%	17.99%
8.2.4.	RECREATIONAL FACILITIES	43.82%	37.07%	19.11%

9. PHYSICAL CHARACTERISTICS

9.1. Rate the quality of the port of Durban's administration in the following categories:

	DESCRIPTION	ALWAYS SATISFACTORY	SOMETIMES SATISFACTORY	NEVER SATISFACTORY
		1	2	3
9.1.1.	BERTHING FACILTIES	40.44%	59.56%	0.00%
9.1.2.	CARGO HANDLING FACILITIES (PROXIMITY)	21.34%	74.15%	4.51%
9.1.3.	PROTECTED STORAGE/WAREHOUSES	47.19%	51.68%	1.13%
9.1.4.	SAFE NAVIGABLE CHANNELS	65.16%	33.70%	1.14%
9.1.5.	ACCESS FOR ROAD/RAIL TRANSPORTERS	33.70%	62.92%	3.38%

9.2. Seafarers are encouraged to suggest improvements to Durban's physical characteristics in terms of improving port operations.

ALWAYS	SOMETIMES	NEVER
1	2	3
26.97%	4.49%	68.54%

10. ATTRIBUTES 10.1.Rate the port of Durban's competitive attributes, from "most important (1)" to "least important (8)", in the following categories:

		% 1	% 2	% 3	% 4	% 5	% 6	% 7	% 8
10.1.1.	COSTS	44.94	26.96	15.73	4.49	2.24	3.37	1.12	1.15
10.1.2.	INFRASTRUCTURE	1.12	16.85	12.35	23.59	15.73	12.35	5.61	12.40
10.1.3.	INNOVATION	16.85	39.32	22.47	6.74	7.86	4.49	1.12	1.15
10.1.4.	PHYSICAL CHARACTERISTICS	5.61	0.00	7.86	11.23	20.22	20.22	23.59	11.27
10.1.5.	QUALITY	0.00	1.12	3.37	14.60	17.97	21.34	21.34	20.26
10.1.6.	REPUTATION	0.00	2.24	12.35	14.60	11.23	20.22	26.96	12.40
10.1.7.	TRAINING	1.12	1.12	1.12	8.98	17.97	15.73	17.97	35.99
10.1.8.	TURAROUND TIME	30.33	12.35	24.71	15.73	6.74	2.24	2.24	5.66

Appendix G: Research findings - PAs

APPENDIXG: PAGE 1

1. DEMOGRAPHICS

MALE	FEMALE
1	2
80.64%	19.36%

1.2. What is your race?

BLACK	ASIAN	COLOURED	WHITE	OTHER
1	2	3	4	5
18.54%	12.09%	4.83%	63.70%	0.84%

1.3. How old are you?

<20 YEARS	20-29YEARS	30-39 YEARS	40-49 YEARS	50-59 YEARS	>59 YEARS
1	2	3	4	5	6
0.00%	8.87%	34.67%	28.22%	25.84%	2.40%

1.4. How long have you been employed at the port of Durban?

<1 YEAR	1-5 YEARS	6-10 YEARS	11-20 YEARS	>20 YEARS
1	2	3	4	5
0.00%	14.51%	28.22%	29.03%	28.24%

1.5. At what level are you graded?

UPPER MANAGEMENT	MIDDLE MANAGEMENT	LOWER MANAGEMENT	JUNIOR OFFICER
1	2	3	4
10.48%	73.39%	6.45%	9.68%

2. QUALITY

2.1. Since 2002, the change to administration at the port of Durban has been:

FAVOURABLE	NO CHANGE	UNFAVOURABLE
1	2	3
27.41%	44.37%	28.22%

2.2. Compared to the years before 2002, rate the following factors relating to the procurement process at the port of Durban:

	DESCRIPTION	BETTER	SIMILAR	WORSE
		1	2	3
2.2.1.	THE QUALITY OF SUPPLIES PROCURED IS	14.52%	37.90%	47.58%
2.2.2.	THE LAPSE RATE FOR DELIVERY OF SUPPLIES IS	11.30%	38.70%	50.00%
2.2.3.	THE 'VALUE FOR MONEY' COST OF SUPPLIES IS	14.52%	33.87%	51.61%

2.3. Since 2002, how do you rate the quality of marine service at the port of Durban?

	DESCRIPTION	ABOVE AVERAGE	AVERAGE	BELOW AVERAGE
		1	2	3
2.3.1.	BERTHING OPERATIONS	16.93%	62.90%	20.17%
2.3.2.	DREDGERS	24.19%	70.96%	4.85%
2.3.3.	FLOATING CRANES	18.54%	75.82%	5.64%
2.3.4.	HARBOUR LAUNCHES	18.54%	61.29%	20.17%
2.3.5.	PILOTAGE	19.35%	61.29%	19.36%
2.3.6.	TUGS/CRAFT	18.54%	67.74%	13.72%

3. COSTS

3.1. Are there any reasonable measures that could be taken to reduce port charges at the port of Durban?

YES	NO	DON'T KNOW
1	2	3
45.16%	37.91%	16.93%

3.2. If "yes", what measures could be taken?

3.3. Since 2002, the port of Durban's container handling operations have:

IMPROVED	STAYED THE SAME	WORSENED
1	2	3
30.64%	45.16%	24.20%

3.4. Does the Vessel Traffic System (VTS) provide accurate navigation information during port operations at the port of Durban?

ALWAYS	SOMETIMES	NEVER	DON'T KNOW
	2	3	4
30.64%	43.54%	8.87%	16.95%

4. TRAINING

4.1. Since 2002, are sufficient resources available to allow port employees to get training to develop their skills in the following categories?

	DESCRIPTION	YES	NO	DON'T KNOW
		1	2	3
4.1.1.	CARGO HANDLING	40.32%	40.32%	19.36%
4.1.2.	MARINE OPERATIONS	47.58%	45.96%	6.46%
4.1.3.	EMERGENCY SERVICES	45.16%	31.45%	23.39%
4.1.4.	DRY-DOCK/SHIP REPAIR FACILITIES	37.90%	33.87%	28.23%

4.2. I believe that my skills are fully recognised and utilised by Durban's port administrators.

STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
1	2	3	4	5
16.94%	28.23%	11.29%	25.81%	17.74%

5. INNOVATION

5.1. Could Durban's port administrators be more innovative in the manner that they handle operations in the

following categories?

	DESCRIPTION	YES	NO	DON'T KNOW
		1	2	3
5.1.1.	MARINE OPERATIONS	73.38%	19.35%	7.27%
5.1.2.	CONTAINER HANDLING OPERATIONS	68.54%	14.51%	16.95%
5.1.3.	CAR HANDLING OPERATIONS	50.00%	25.00%	25.00%
5.1.4.	GAS, CHEMICAL AND OIL OPERATIONS	49.19%	29.03%	21.78%
5.1.5.	GENERAL CARGO HANDLING OPERATIONS	56.45%	23.38%	20.17%
5.1.6.	RAILWAY SIDINGS	53.22%	20.96%	25.82%

5.2. Are fresh ideas encouraged when attempting to reduce traffic congestion surrounding the port of Durban in the following categories?

	DESCRIPTION	ALWAYS	SOMETIMES	NEVER	DON'T KNOW
		1	2	3	4
5.2.1.	MARINE OPERATIONS	8.06%	37.90%	40.32%	13.72%
5.2.2.	CONTAINER HANDLING OPERATIONS	11.29%	31.45%	38.70%	18.56%
5.2.3.	CAR HANDLING OPERATIONS	10.48%	31.45%	35.48%	22.59%
5.2.4.	GAS, CHEMICAL AND OIL OPERATIONS	8.87%	32.25%	37.09%	21.79%
5.2.5.	GENERAL CARGO HANDLING OPERATIONS	10.48%	32.25%	34.67%	22.60%
5.2.6.	RAILWAY SIDINGS	11.29%	29.03%	33.87%	25.81%

6. TURNAROUND TIME

6.1. Could the port of Durban's vessel turnaround time be improved?

YES	NO	DON'T KNOW
1	2	3
66.12%	25.80%	8.08%

6.2. If "ves", which categories need to be improved?

	DESCRIPTION	NO IMPROVEMENT	NEEDS IMPROVEMENT
		0	1
6.2.1.	CARGO HANDLING	41.13%	58.87%
6.2.2.	DRY-DOCK/SHIP REPAIR FACILITIES	61.30%	38.70%
6.2.3.	EMERGENCY SERVICES	85.49%	14.51%
6.2.4.	MARINE OPERATIONS	41.13%	58.87%

6.3. Are improvements in the following budgeted to be addressed within the next 3-5 years?

	DESCRIPTION	YES	NO	SOMETIMES	DON'T KNOW
		1	2		3
6.3.1.	CARGO HANDLING FACILITIES	39.51%	2.41%	2.41%	55.67%
6.3.2.	DRY-DOCK/SHIP REPAIR FACILITIES	16.12%	5.64%	0.84%	77.40%
6.3.3.	EMERGENCY FACILITIES	10.48%	7.25%	3.24%	79.03%
6.3.4.	MARINE OPERATIONS	35.84%	4.49%	0.00%	59.67%

6.4. Compared to the years before 2002, how would you describe the current length of delays at the port of Durban because of the following factors?

	DESCRIPTION	SHORTER DELAYS	ABOUT THE SAME	LONGER DELAYS	DON'T KNOW
		1	2	3	4
6.4.1.	CARGO AVAILABILITY	15.32%	48.38%	22.58%	13.72%
6.4.2.	INDUSTRIAL ACTION	23.38%	55.64%	9.67%	11.31%
6.4.3.	MARINE SERVICE	16.12%	48.38%	25.80%	9.70%
6.4.4.	PILOTAGE	16.93%	50.00%	25.80%	7.27%
6.4.5.	POOR WEATHER	19.35%	66.12%	4.83%	9.70%

6.5. Compared to the years before 2002, how would you describe the current frequency of delays at the port of Durban because of the following factors?

	DESCRIPTION	LESS OFTEN	SAME	MORE OFTEN	DON'T KNOW			
		1	2	3	4			
6.5.1.	CARGO AVAILABILITY	15.32%	52.41%	19.35%	12.92%			
6.5.2.	INDUSTRIAL ACTION	29.03%	49.19%	9.67%	12.11%			
6.5.3.	MARINE SERVICE	17.74%	52.41%	21.77%	8.08%			
6.5.4.	PILOTAGE	17.74%	44.62%	25.80%	11.84%			
6.5.5.	POOR WEATHER	21.77%	66.12%	1.61%	10.50%			

7. REPUTATION

7.1. Since 2002, the transparency of Durban's port operations has:

INCREASED	STAYED THE SAME	DECREASED
1	2	3
23.39%	41.94%	34.67%

 INFRASTRUCTURE
Does the port of Durban's infrastructure make it more competitive than other ports along the east coast of Southern Africa?

YES	NO	DON'T KNOW
1	2	3
48.38%	40.32%	11.30%

8.2. If "no", which of the following need to be improved?

	DESCRIPTION	NO	SUBSTANTIALLY	A LITTLE	DON'T KNOW
		0	1	2	3
8.2.1.	BERTHING ARRANGEMENTS	24.19%	7.25%	29.83%	38.73%
8.2.2.	CARGO HANDLING FACILITIES	24.19%	22.58%	19.35%	33.88%
8.2.3.	DRY-DOCK/SHIP REPAIR FACILITIES	25.00%	18.54%	20.16%	36.30%
8.2.4.	RECREATIONAL FACILITIES	25.00%	19.67%	29.83%	35.50%

8.3. Have these improvements been budgeted for in the next 3-5 years?

	DESCRIPTION	YES	NO	DON'T KNOW	
		1	2	3	
8.3.1.	BERTHING ARRANGEMENTS	23.38%	5.64%	70.98%	
8.3.2.	CARGO HANDLING FACILITIES	30.64%	40.30%	65.33%	
8.3.3.	DRY-DOCK/SHIP REPAIR FACILITIES	0.80%	7.25%	91.95%	
8.3.4.	RECREATIONAL FACILITIES	11.29%	5.64%	83.07%	

9. PHYSICAL CHARACTERISTICS

9.1. Rate the port of Durban's quality of administration in the following categories:

	DESCRIPTION	ALWAYS SATISFACTORY	SOMETIMES SATISFACTORY	NEVER SATISFACTORY
		1	2	3
9.1.1.	BERTHING FACILITIES	29.83%	70.17%	0.00%
9.1.2.	CARGO HANDLING FACILITIES	26.61%	67.74%	5.65%
9.1.3.	PROTECTED STORAGE/WAREHOUSES	29.03%	70.97%	0.00%
9.1.4.	SAFE NAVIGABLE CHANNELS	45.96%	54.04%	0.00%
9.1.5.	ACCESS FOR ROAD/RAIL TRANSPORTERS	26.61%	73.39%	0.00%

9.2. Could Durban's port administrators improve the harbour's physical characteristics?

YES		NO			DON'T KNOW		
1		2			3		
	66.67%	2	24.39%			8.94	4%
9.3. lf " <u>y</u>	yes", which categories need to be	e improved?					
	DESCRIPTION		NO IMPR	OVEME	NT	NEEDS	IMPROVEMENT
			0			1	
9.3.1.	BERTHING FACILITIES		54.	03%			45.97%
9.3.2.	CARGO HANDLING FACILITIE	50.	50.00%			50.00%	
9.3.3.	PROTECTED STORAGE/WAF	73.	73.38%			26.62%	
9.3.4.	SAFE NAVIGABLE CHANNEL	53.	53.22%			46.78%	
9.4. lf "y	yes", are these improvements but	dgeted for in the n	ext 3-5 years?				
	DESCRIPTION		SOMETIMES	YES	N	0	DON'T KNOW
				1	2		3
9.4.1.	BERTHING FACILITIES		6.45%	33.06	5%	1.61%	58.88%
9.4.2.	CARGO HANDLING FACILITIES		5.64%	34.67	7%	0.00%	59.69%
9.4.3.	PROTECTED STORAGE/WAREHOUSES		8.06%	14.5	1%	1.61%	75.82%
9.4.4.	SAFE NAVIGABLE CHANNELS		5.64%	40.32	2%	1.61%	52.43%
9.4.5.	ACCESS FOR ROAD/RAIL TR	ANSPORTERS	4.83%	22.58	3%	2.41%	70.18%
10 AT	TRIBUTES						

10. ATTRIBUTES

10.1. Rate the port of Durban's competitive attributes, from "most important (1)" to "least important (8)", in the following categories:

		% 1	% 2	% 3	% 4	% 5	% 6	% 7	% 8
10.1.1.	COSTS	44.94	26.96	15.73	4.49	2.24	3.37	1.12	1.15
10.1.2.	INFRASTRUCTURE	9.67	16.12	16.12	20.96	12.09	9.67	5.64	9.73
10.1.3.	INNOVATION	8.06	16.93	23.38	9.67	11.29	12.90	10.48	7.29
10.1.4.	PHYSICAL CHARACTERISTICS	4.83	8.87	5.64	10.48	16.12	16.12	20.96	16.98
10.1.5.	QUALITY	0.80	8.87	4.83	9.67	17.74	13.70	22.58	21.81
10.1.6.	REPUTATION	4.03	7.25	10.48	12.09	12.90	19.35	20.16	13.74
10.1.7.	TRAINING	14.51	8.87	4.83	10.48	10.48	16.12	21.77	12.94
10.1.8.	TURAROUND TIME	20.16	15.32	19.35	17.74	11.29	5.64	5.64	4.86

Appendix H: Research findings - WFs

1. DEMOGRAPHICS

1.1. What is your gender?

MALE	FEMALE	
1	2	
80.00%	20.00%	

1.2. What is your race?

BLACK	ASIAN	COLOURED	WHITE	OTHER
1	2	3	4	5
8.90%	24.44%	4.44%	62.22%	0.00%

1.3. How old are you?

<20 YEARS	20-29YEARS	30-39 YEARS	40-49 YEARS	50-59 YEARS	>59 YEARS
1	2	3	4	5	6
2.22%	8.88%	13.33%	48.88%	17.77%	8.92%

1.4. How long have you worked at the port of Durban?

<1 YEAR	1-5 YEARS	6-10 YEARS	11-20 YEARS	>20 YEARS
1	2	3	4	5
0.00%	31.11%	35.55%	22.22%	11.12%

2. QUALITY

2.1. Since 2002, the quality of administration at the port of Durban has improved.

STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
1	2	3	4	5
0.00%	17.50%	15.00%	55.00%	12.50%

2.2. Durban's port administrators keep the local community informed of upcoming events/activities that may have an impact on my business.

ALWAYS	SOMETIMES	NEVER
0.00%	37.77%	62.23%

2.3. It appears that vessels are moved safely when entering or leaving the harbour entrance channel at the port of Durban.

MOSTLY	SOMETIMES	SELDOM	DON'T KNOW
1	2	3	4
51.11%	8.88%	0.00%	40.01%

3. COSTS

3.1. Is your rental market related?

YES	NO	DON'T KNOW
1	2	3
15.56%	80.00%	4.44%

3.2. I feel that the Millennium Tower, located near the entrance to the port of Durban, is a significant landmark and improves the beauty of the landscape.

STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE
1	2	3	4	5
42.22%	48.88%	8.90%	0.00%	0.00%

APPENDIX H: PAGE 1

4. INNOVATION

4.1. Could Durban's port administrators be more innovative in matters relating to waterfront facilities?

YES	NO	DON'T KNOW
1	2	3
95.56%	2.22%	2.22%

4.2. If "yes", indicate how the following categories could be improved in terms of innovation:

		SUBSTANTIALLY	A LITTLE	DON'T KNOW
		1	2	3
4.2.1.	CUSTOMER SERVICE	80.00%	17.77%	2.23%
4.2.2.	PARKING ARRANGEMENTS	91.11%	6.66%	2.23%
4.2.3.	RENT	64.44%	28.88%	6.68%
4.2.4.	SOCIAL RESPONSIBILITY	91.11%	6.66%	2.23%

5. REPUTATION

5.1. I believe that the port of Durban employs good business ethics.

STRONGLY AGREE	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE	
1	2	3	4	5	
2.22%	24.44%	13.33%	48.88%	11.13%	
5.2 Since 2002 administration at the port of Durban has become:					

MORE TRANSPARENT	REMAINED THE SAME	LESS TRANSPARENT
1	2	3
6.67%	40.00%	53.33%

6. PHYSICAL CHARACTERISTICS

6.1. Indicate the appropriate block regarding the location made available to Durban's waterfront facilitators:

	DESCRIPTION	GOOD	AVERAGE	POOR
		1	2	3
6.1.1.	ACCESSIBLITY TO CONSUMERS	0.00%	46.66%	53.34%
6.1.2.	ADEQUATE PARKING FACILITIES	24.44%	35.55%	40.01%
6.1.3.	HARBOUR VIEWS	42.22%	53.33%	4.45%
6.1.4.	SUITABLILTY FOR YOUR BUSINESS	4.44%	91.11%	4.45%
				1 11 11 1

6.2. Durban's port administrators are considerate towards waterfront facilities that might be affected by alterations to the physical characteristics of the port.

ALWAYS	SOMETIMES	NEVER	DON'T KNOW
1	2	3	4
0.00%	3.77%	57.77%	4.44%

6.3. Rate the suitability of the port of Durban's physical characteristics to waterfront facilities compared to other ports along the east coast of Southern Africa.

BETTER	SIMILAR	NOT AS GOOD	DON'T KNOW
1	2	3	4
11.11%	68.89%	15.56%	4.44%

7. ATTRIBUTES

7.1. Rate the port of Durban's competitive attributes, from "most important (1)" to "least important (8)", in the following categories:

		% 1	% 2	% 3	% 4	% 5	% 6	% 7	% 8
10.1.1.	COSTS	60.01	20.00	15.55	2.22	0.00	2.22	0.00	0.00
10.1.2.	INFRASTRUCTURE	0.00	2.22	8.88	13.33	2.22	28.88	15.59	28.88
10.1.3.	INNOVATION	28.88	57.77	13.35	0.00	0.00	0.00	0.00	0.00
10.1.4.	PHYSICAL CHARACTERISTICS	2.22	2.22	6.66	13.33	35.55	17.77	17.77	4.48
10.1.5.	QUALITY	0.00	2.22	17.77	33.33	24.44	6.66	11.11	4.47
10.1.6.	REPUTATION	8.88	15.55	28.88	28.88	13.33	2.22	2.26	0.00
10.1.7.	TRAINING	0.00	0.00	4.44	0.00	13.33	35.55	26.66	20.02
10.1.8.	TURAROUND TIME	0.00	0.00	4.44	8.88	11.11	6.66	26.66	42.25

Appendix I: Supporting tables for frequencies

	DESCRIPTION	PAGE NUMBERS
1.	Count of survey questionnaire: Vessel Masters	2 – 92
2.	Count of survey questionnaire: Port Administrators	93 – 174
3.	Count of survey questionnaire: Waterfront facilitators	175 - 200

Appendix J: Summary of supporting analyses

APPENDIX J: PAGE 1

QUESTION	DESCRIPTION	RESPONSE	CHI-SQUARE	TABULATED
			STATISTIC	CHI-SQUARE
			(T)	(C ²)
VMs 2.2.1, PAs 2.2.1	RATE THE QUALITY OF SUPPLIES AFTER 2002, AT THE PORT OF DURBAN, RELATIVE TO OTHER PORTS ALONG THE EAST COAST OF SOUTHERN AFRICA.	VMs: WORSE PAs: WORSE	6.50	5.991476357
VMs 2.2.3, PAs 2.2.3	RATE THE 'VALUE FOR MONEY' COST OF SUPPLIES AFTER 2002, AT THE PORT OF DURBAN, RELATIVE TO OTHER PORTS ALONG THE EAST COAST OF SOUTHERN AFRICA.	VMs: WORSE PAs: WORSE	10.73	5.991476357
VMs 3.2., PAs 3.1	ARE THERE ANY REASONABLE MEASURES THAT COULD BE TAKEN TO REDUCE PORT CHARGES AT THE PORT OF DURBAN?	VMs: YES PAs: YES	8.86	5.991476357
PAs 4.2, PAs 1.2	I BELIEVE THAT MY SKILLS ARE FULLY RECOGNISED AND UTILISED BY DURBAN'S PORT ADMINISTRATORS. (RACE)	PAs: AGREE	21.28	9.487728465
PAs 4.2, PAs 1.5	I BELIEVE THAT MY SKILLS ARE FULLY RECOGNISED AND UTILISED BY DURBAN'S PORT ADMINISTRATORS. (GRADE)	PAs: AGREE	12.94	9.487728465
PAs 5.2.1, PAs 1.5	ARE FRESH IDEAS ENCOURAGED WHEN ATTEMPTING TO REDUCE TRAFFIC CONGESTION SURROUNDING THE PORT OF DURBAN IN MARINE OPERATIONS? (GRADE)	PAs: NEVER	15.68	12.59157742
PAs 5.2.2, PAs 1.5	ARE FRESH IDEAS ENCOURAGED WHEN ATTEMPTING TO REDUCE TRAFFIC CONGESTION SURROUNDING THE PORT OF DURBAN IN CONTAINER HANDLING OPERATIONS? (GRADE)	PAs: NEVER	17.45	12.59157742
PAs 5.2.3, PAs 1.1	ARE FRESH IDEAS ENCOURAGED WHEN ATTEMPTING TO REDUCE TRAFFIC CONGESTION SURROUNDING THE PORT OF DURBAN IN CAR HANDLING OPERATIONS? (GENDER)	PAs: NEVER	9.34	7.814724703
PAs 5.2.3, PAs 1.2	ARE FRESH IDEAS ENCOURAGED WHEN ATTEMPTING TO REDUCE TRAFFIC CONGESTION SURROUNDING THE PORT OF DURBAN IN CAR HANDLING OPERATIONS? (RACE)	PAs: NEVER	13.28	12.59157742

WHEN T>C², A PATTERN EXISTS BETWEEN THE SELECTED VARIABLES

.../PAs 5.2.4, PAs 1.1

PAs 5.2.4, PAs 1.1	ARE FRESH IDEAS ENCOURAGED WHEN ATTEMPTING TO REDUCE	PAs: NEVER	8.85	7.814724703
	TRAFFIC CONGESTION SURROUNDING THE PORT OF DURBAN IN GAS,			
	CHEMICAL AND OIL OPERATIONS? (GENDER)			
PAs 5.2.5, PAs 1.1	ARE FRESH IDEAS ENCOURAGED WHEN ATTEMPTING TO REDUCE	PAs: NEVER	9.29	7.814724703
	TRAFFIC CONGESTION SURROUNDING THE PORT OF DURBAN IN			
	GENERAL CARGO HANDLING OPERATIONS? (GENDER)			
VMs 6.4.4, PAs 6.4.4	SINCE 2002, THE LENGTH OF DELAYS AS A RESULT OF PILOTAGE AT	VMs: LONGER	19.90	5.991476357
	THE PORT OF DURBAN ARE:	PAS: ABOUT THE SAME		
VMs 6.5.2, VMs 1.4	COMPARED TO OTHER PORTS ALONG THE EAST COAST OF SOUTHERN	VMs: SIMILAR	7.29	5.991476357
	AFRICA, THE FREQUENCY OF DELAYS AS A RESULT OF INDUSTRIAL			
	ACTION AT THE PORT OF DURBAN OCCUR: (NUMBER OF YEARS THAT			
	HAVE BEEN CALLING AT THE PORT)			
VMs 6.6.1, PAs 6.5.1	SINCE 2002, THE FREQUENCY OF DELAYS AS A RESULT OF CARGO	VMs: SIMILAR	7.44	5.991476357
	AVAILAIBILITY AT THE PORT OF DURBAN OCCUR:	PAS: SAME		
VMs 6.6.3, PAs 6.5.3	SINCE 2002, THE FREQUENCY OF DELAYS AS A RESULT OF MARINE	VMs: SIMILAR	10.03	5.991476357
	SERVICE AT THE PORT OF DURBAN OCCUR:	PAS: SAME		
VMs 6.6.4, PAs 6.5.4	SINCE 2002, THE FREQUENCY OF DELAYS AS A RESULT OF PILOTAGE	VMs: MORE OFTEN	23.97	5.991476357
	AT THE PORT OF DURBAN OCCUR:	PAS: SAME		
VMs 7.1, WFs 5.1	SEAFARERS BELIEVE THAT THE PORT OF DURBAN EMPLOYS GOOD	VMs: AGREE	10.21	7.814724703
	BUSINESS ETHICS (VMs). I BELIEVE THAT THE PORT OF DURBAN	WFs: DISAGREE		
	EMPLOYS GOOD BUSINESS ETHICS (WFs).			
PAs 7.1, WFs 5.2	SINCE 2002, THE TRANSPARENCY OF DURBAN'S PORT OPERATIONS	PAs: STAYED THE SAME	7.80	5.991476357
	HAS:	WFs: LESS TRANSPARENT		
VMs 9.1.3, PAs 9.1.3	RATE THE QUALITY OF THE PORT OF DURBAN'S ADMINISTRATION IN	VMs: SOMETIMES SATISFACTORY	8.69	5.991476357
	PROTECTED STORAGE/WAREHOUSES	PAS: SOMETIMES SATISFACTORY		
VMs 9.1.4, PAs 9.1.4	RATE THE QUALITY OF THE PORT OF DURBAN'S ADMINISTRATION IN	VMs: ALWAYS SATISFACTORY	7.69	3.841455338
	SAFE NAVIGABLE CHANNELS	PAS: SOMETIMES SATISFACTORY		

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Count of survey questionnaire: Vessel Masters 1.

COMPARED TO THE YEARS BEFORE 2002, THE QUALITY OF DURBAN'S PORT ADMINISTRATION IN THE FOLLOWING AREAS IS:

	BERTHING	BETTER	SIMILAR	WORSE	
11	OPERATIONS	1	2	3	GRAND TOTAL
1.1.	MALE	15	56	18	89
		15	56	10	80
TOTAL		15	50	10	09
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	1	5	1	7
4	WHITE	12	46	17	75
5	OTHER	2	5		7
GRAND TOTAL		15	56	18	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	1	1		2
4	40 TO 49 YEARS	1	11	5	17
5	50 TO 59 YEARS	8	35	13	56
6	>59 YEARS	5	9		14
GRAND TOTAL		15	56	18	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	1	2		3
3	6 TO 10 YEARS	3	5	4	12
4	11 TO 20 YEARS	6	25	9	40
5	>20 YEARS	5	24	5	34
GRAND TOTAL		15	56	18	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM		1		1
2	2 TO 5 PER ANNUM	7	31	8	46
3	>5 PER ANNUM	8	24	10	42
GRAND TOTAL		15	56	18	89

SUDVEY OUESTIONNAIDE COUNT: VESSEL MASTERS 2.1

SURVEY Q	UESTIONNAIRE COUNT:	VESSEL MASTERS 2	.1.2.		
	CARGO HANDLING OPERATIONS	BETTER	SIMILAR	WORSE	
1.1.		1	2	3	GRAND TOTAL
1	MALE	10	43	36	89
GRAND TOTAL		10	43	36	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN		2	5	7
4	WHITE	9	36	30	75
5	OTHER	1	5	1	7
GRAND TOTAL		10	43	36	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	1	1		2
4	40 TO 49 YEARS		8	9	17
5	50 TO 59 YEARS	6	25	25	56
6	>59 YEARS	3	9	2	14
GRAND TOTAL		10	43	36	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	1	2		3
3	6 TO 10 YEARS		8	4	12
4	11 TO 20 YEARS	6	19	15	40
5	>20 YEARS	3	14	17	34
GRAND TOTAL		10	43	36	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM		1		1
2	2 TO 5 PER ANNUM	4	23	19	46
3	>5 PER ANNUM	6	19	17	42
GRAND TOTAL		10	43	36	89

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COMPARED	то	THE	YEARS	BEFORE	2002,	THE	QUALITY	OF	DURBAN'S	PORT	ADMINISTRATION	IN	THE
FOLLOWING	ARE	EAS IS	S:										

	DREDGERS	BETTER	SIMILAR	WORSE	
1.1.		1	2	3	GRAND TOTAL
1	MALE	26	62	1	89
GRAND TOTAL		26	62	1	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	3	4		7
4	WHITE	20	54	1	75
5	OTHER	3	4		7
GRAND TOTAL		26	62	1	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS		2		2
4	40 TO 49 YEARS	6	11		17
5	50 TO 59 YEARS	16	39	1	56
6	>59 YEARS	4	10		14
GRAND TOTAL		26	62	1	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	1	2		3
3	6 TO 10 YEARS	6	6		12
4	11 TO 20 YEARS	12	28		40
5	>20 YEARS	7	26	1	34
GRAND TOTAL		26	62	1	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM		1		1
2	2 TO 5 PER ANNUM	13	33		46
3	>5 PER ANNUM	13	28	1	42
GRAND TOTAL		26	62	1	89

	FLOATING CRANES	BETTER	SIMILAR	WORSE	
1.1.		1	2	3	GRAND TOTAL
1	MALE	14	67	8	89
GRAND TOTAL		14	67	8	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	1	5	1	7
4	WHITE	11	57	7	75
5	OTHER	2	5		7
GRAND TOTAL		14	67	8	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS		2		2
1	40 TO 49 YEARS	3	11	3	17
5	50 TO 59 YEARS	7	45	4	56
6	>59 YEARS	4	9	1	14
GRAND TOTAL		14	67	8	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	1	2		3
3	6 TO 10 YEARS	4	7	1	12
1	11 TO 20 YEARS	5	30	5	40
5	>20 YEARS	4	28	2	34
GRAND TOTAL		14	67	8	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM		1		1
2	2 TO 5 PER ANNUM	6	36	4	46
3	>5 PER ANNUM	8	30	4	42
GRAND TOTAL		14	67	8	89

	HARBOUR LAUNCHES	BETTER	SIMILAR	WORSE	
1.1.		1	2	3	GRAND TOTA
	MALE	15	65	9	89
GRAND		15	65	9	89
.2.		1	2	3	GRAND TOTA
2	ASIAN	1	5	1	7
1	WHITE	13	54	8	75
5	OTHER	1	6		7
GRAND TOTAL		15	65	9	89
1.3.		1	2	3	GRAND TOTA
3	30 TO 39 YEARS		1	1	2
1	40 TO 49 YEARS	2	11	4	17
5	50 TO 59 YEARS	10	43	3	56
6	>59 YEARS	3	10	1	14
GRAND FOTAL		15	65	9	89
1.4.		1	2	3	GRAND TOTA
2	1 TO 5 YEARS	1	2		3
3	6 TO 10 YEARS	4	6	2	12
1	11 TO 20 YEARS	6	30	4	40
5	>20 YEARS	4	27	3	34
GRAND TOTAL		15	65	9	89
.5.		1	2	3	GRAND TOTA
1	1 PER ANNUM	1	1		1
2	2 TO 5 PER ANNUM	7	34	5	46
3	>5 PER ANNUM	8	30	4	42
GRAND TOTAL		15	65	9	89

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SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 2.1.6.						
	PILOTAGE	BETTER	SIMILAR	WORSE		
1.1.		1	2	3	GRAND TOTAL	
1	MALE	9	37	43	89	
GRAND TOTAL		9	37	43	89	
1.2.		1	2	3	GRAND TOTAL	
2	ASIAN		3	4	7	
4	WHITE	8	29	38	75	
5	OTHER	1	5	1	7	
GRAND TOTAL		9	37	43	89	
1.3.		1	2	3	GRAND TOTAL	
3	30 TO 39 YEARS	1	1		2	
4	40 TO 49 YEARS		5	12	17	
5	50 TO 59 YEARS	5	23	28	56	
6	>59 YEARS	3	8	3	14	
GRAND TOTAL		9	37	43	89	
1.4.		1	2	3	GRAND TOTAL	
2	1 TO 5 YEARS	1		2	3	
3	6 TO 10 YEARS	1	3	8	12	
4	11 TO 20 YEARS	5	17	18	40	
5	>20 YEARS	2	17	15	34	
GRAND TOTAL		9	37	43	89	
4.5						
1.5.		1	2	3	GRANDIOTAL	
1			1		1	
2	2 10 5 PER ANNUM	4	1/	25	46	
3	>5 PER ANNUM	5	19	18	42	
TOTAL		9	37	43	89	

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	TUGS AND CRAFT	BETTER	SIMILAR	WORSE	
1.1.		1	2	3	GRAND TOTA
	MALE	14	47	28	89
BRAND OTAL		14	47	28	89
.2.		1	2	3	GRAND TOTA
2	ASIAN		5	2	7
1	WHITE	13	37	25	75
5	OTHER	1	5	1	7
GRAND FOTAL		14	47	28	89
1.3.		1	2	3	GRAND TOTA
3	30 TO 39 YEARS	1	1		2
Ļ	40 TO 49 YEARS		9	8	17
5	50 TO 59 YEARS	9	29	18	56
6	>59 YEARS	4	8	2	14
GRAND FOTAL		14	47	28	89
1 /		1	2	2	
1.4. 2		1	2	3	
<u>-</u>		1	1	6	10
1		6	4	12	12
-		5	22	0	40
GRAND TOTAL		14	47	28	89
-					
1.5.		1	2	3	GRAND TOTA
1	1 PER ANNUM	1			1
2	2 TO 5 PER ANNUM	6	26	14	46
3	>5 PER ANNUM	7	21	14	42
GRAND FOTAL		14	47	28	89
				1	

RATE THE QUALITY OF SUPPLIES AFTER 2002, AT THE PORT OF DURBAN, RELATIVE TO OTHER PORTS ALONG THE EAST COAST OF SOUTHERN AFRICA IN THE FOLLOWING CATEGORIES:

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 2.2.1.							
	THE QUALITY OF SUPPLIES IS	BETTER	SIMILAR	WORSE			
1.1.		1	2	3	GRAND TOTAL		
1	MALE	4	32	53	89		
GRAND		4	32	53	89		
TOTAL							
1.0		1	2	2			
1.2.		1	2	5			
2	WUITE	4	2	15	7		
4		4	20	45	75		
5	OTHER		4	3	/		
GRAND		4	32	53	89		
101/12							
1.3.		1	2	3	GRAND TOTAL		
3	30 TO 39 YEARS	1	1		2		
4	40 TO 49 YEARS		4	13	17		
5	50 TO 59 YEARS	2	18	36	56		
6	>59 YEARS	1	9	4	14		
GRAND TOTAL		4	32	53	89		
1.4.		1	2	3	GRAND TOTAL		
2	1 TO 5 YEARS	1	1	1	3		
3	6 TO 10 YEARS	1	1	10	12		
4	11 TO 20 YEARS	2	18	20	40		
5	>20 YEARS		12	22	34		
GRAND		4	32	53	89		
TOTAL							
1.5.		1	2	3	GRAND TOTAL		
1	1 PER ANNUM		1		1		
2	2 TO 5 PER ANNUM	2	15	29	46		
3	>5 PER ANNUM	2	16	24	42		
GRAND	-	4	32	53	89		
TOTAL			-				

RATE THE QUALITY OF SUPPLIES AFTER 2002, AT THE PORT OF DURBAN, RELATIVE TO OTHER PORTS ALONG THE EAST COAST OF SOUTHERN AFRICA IN THE FOLLOWING CATEGORIES:

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 2.2.2.							
	THE LAPSE RATE FOR DELIVERY OF SUPPLIES IS	BETTER	SIMILAR	WORSE			
1.1.		1	2	3	GRAND TOTAL		
1	MALE	6	29	54	89		
GRAND TOTAL		6	29	54	89		
1.2.		1	2	3	GRAND TOTAL		
2	ASIAN	1		6	7		
4	WHITE	3	28	44	75		
5	OTHER	2	1	4	7		
GRAND TOTAL		6	29	54	89		
1.3.		1	2	3	GRAND TOTAL		
3	30 TO 39 YEARS		2		2		
4	40 TO 49 YEARS	1	3	13	17		
5	50 TO 59 YEARS	3	19	34	56		
6	>59 YEARS	2	5	7	14		
GRAND TOTAL		6	29	54	89		
1.4.		1	2	3	GRAND TOTAL		
2	1 TO 5 YEARS	1	1	1	3		
3	6 TO 10 YEARS		3	9	12		
4	11 TO 20 YEARS	4	17	19	40		
5	>20 YEARS	1	8	25	34		
GRAND TOTAL		6	29	54	89		
1.5.		1	2	3	GRAND TOTAL		
1	1 PER ANNUM		1		1		
2	2 TO 5 PER ANNUM	4	11	31	46		
3	>5 PER ANNUM	2	17	23	42		
GRAND TOTAL		6	29	54	89		

RATE THE QUALITY OF SUPPLIES AFTER 2002, AT THE PORT OF DURBAN, RELATIVE TO OTHER PORTS ALONG THE EAST COAST OF SOUTHERN AFRICA IN THE FOLLOWING CATEGORIES:

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 2.2.3.						
	'VALUE FOR MONEY' COST	BETTER	SIMILAR	WORSE		
1.1.		1	2	3	GRAND TOTAL	
1	MALE	2	27	60	89	
GRAND TOTAL		2	27	60	89	
1.2.		1	2	3	GRAND TOTAL	
2	ASIAN		1	6	7	
4	WHITE	2	22	51	75	
5	OTHER		4	3	7	
GRAND TOTAL		2	27	60	89	
1.3.		1	2	3	GRAND TOTAL	
3	30 TO 39 YEARS		1	1	2	
4	40 TO 49 YEARS		2	15	17	
5	50 TO 59 YEARS	2	17	37	56	
6	>59 YEARS		7	7	14	
GRAND TOTAL		2	27	60	89	
1.4.		1	2	3	GRAND TOTAL	
2	1 TO 5 YEARS		2	1	3	
3	6 TO 10 YEARS		2	10	12	
4	11 TO 20 YEARS	2	14	24	40	
5	>20 YEARS		9	25	34	
GRAND TOTAL		2	27	60	89	
1.5.		1	2	3	GRAND TOTAL	
1	1 PER ANNUM		1		1	
2	2 TO 5 PER ANNUM	2	12	32	46	
3	>5 PER ANNUM		14	28	42	
GRAND TOTAL		2	27	60	89	

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 2.3.							
		YES	NO	DO NOT KNOW			
1.1.		1	2	3	GRAND TOTAL		
1	MALE	69	18	2	89		
GRAND TOTAL		69	18	2	89		
1.2.		1	2	3	GRAND TOTAL		
2	ASIAN	6	1		7		
4	WHITE	60	13	2	75		
5	OTHER	3	4		7		
GRAND TOTAL		69	18	2	89		
1.3.		1	2	3	GRAND TOTAL		
3	30 TO 39 YEARS	2			2		
4	40 TO 49 YEARS	16		1	17		
5	50 TO 59 YEARS	43	12	1	56		
6	>59 YEARS	8	6		14		
GRAND TOTAL		69	18	2	89		
1.4.		1	2	3	GRAND TOTAL		
2	1 TO 5 YEARS	2	1		3		
3	6 TO 10 YEARS	11	1		12		
4	11 TO 20 YEARS	29	9	2	40		
5	>20 YEARS	27	7		34		
GRAND TOTAL		69	18	2	89		
1.5.		1	2	3	GRAND TOTAL		
1	1 PER ANNUM	1			1		
2	2 TO 5 PER ANNUM	36	9	1	46		
3	>5 PER ANNUM	32	9	1	42		
GRAND TOTAL		69	18	2	89		

COULD THE QUALITY OF MARINE SERVICE, AT THE PORT OF DURBAN, BE IMPROVED?

CONVETO					
	OPERATIONS	SUBSTANTIALLY		DO NOT KNOW	
1.1.		1	2	3	GRAND TOTAL
1	MALE	20	58	11	89
GRAND		20	58	11	89
TUTAL					
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	1	5	1	7
4	WHITE	18	49	8	75
5	OTHER	1	4	2	7
GRAND TOTAL		20	58	11	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS		2		2
4	40 TO 49 YEARS	6	11		17
5	50 TO 59 YEARS	13	36	7	56
6	>59 YEARS	1	9	4	14
GRAND TOTAL		20	58	11	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS		3		3
3	6 TO 10 YEARS	6	5	1	12
4	11 TO 20 YEARS	9	25	6	40
5	>20 YEARS	5	25	4	34
GRAND TOTAL		20	58	11	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM		1		1
2	2 TO 5 PER ANNUM	10	30	6	46
3	>5 PER ANNUM	10	27	5	42
GRAND TOTAL		20	58	11	89

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 2.4.1.

|--|

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 2.4.2.							
	DREDGERS	SUBSTANTIALLY	A LITTLE	DO NOT KNOW			
1.1.		1	2	3	GRAND TOTAL		
1	MALE	1	66	22	89		
GRAND TOTAL		1	66	22	89		
1.2.		1	2	3	GRAND TOTAL		
2	ASIAN		6	1	7		
4	WHITE	1	55	19	75		
5	OTHER		5	2	7		
GRAND TOTAL		1	66	22	89		
1.3.		1	2	3	GRAND TOTAL		
3	30 TO 39 YEARS		1	1	2		
4	40 TO 49 YEARS		13	4	17		
5	50 TO 59 YEARS	1	42	13	56		
6	>59 YEARS		10	4	14		
GRAND TOTAL		1	66	22	89		
1.4.		1	2	3	GRAND TOTAL		
2	1 TO 5 YEARS		3		3		
3	6 TO 10 YEARS		6	6	12		
4	11 TO 20 YEARS		31	9	40		
5	>20 YEARS	1	26	7	34		
GRAND TOTAL		1	66	22	89		
1.5.		1	2	3	GRAND TOTAL		
1	1 PER ANNUM		1		1		
2	2 TO 5 PER ANNUM		34	12	46		
3	>5 PER ANNUM	1	31	10	42		
GRAND TOTAL		1	66	22	89		

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 2.4.3.							
	FLOATING CRANES	SUBSTANTIALLY	A LITTLE	DO NOT KNOW			
1.1.		1	2	3	GRAND TOTAL		
1	MALE	5	65	19	89		
GRAND TOTAL		5	65	19	89		
1.2.		1	2	3	GRAND TOTAL		
2	ASIAN		6	1	7		
4	WHITE	5	54	16	75		
5	OTHER		5	2	7		
GRAND TOTAL		5	65	19	89		
1.3.		1	2	3	GRAND TOTAL		
3	30 TO 39 YEARS		1	1	2		
4	40 TO 49 YEARS	3	13	1	17		
5	50 TO 59 YEARS	1	43	12	56		
6	>59 YEARS	1	8	5	14		
GRAND TOTAL		5	65	19	89		
1.4.		1	2	3	GRAND TOTAL		
2	1 TO 5 YEARS		3		3		
3	6 TO 10 YEARS	2	6	4	12		
4	11 TO 20 YEARS	2	30	8	40		
5	>20 YEARS	1	26	7	34		
GRAND TOTAL		5	65	19	89		
1.5.		1	2	3	GRAND TOTAL		
1	1 PER ANNUM		1		1		
2	2 TO 5 PER ANNUM	3	34	9	46		
3	>5 PER ANNUM	2	30	10	42		
GRAND TOTAL		5	65	19	89		

IF "YES", INDICATE WHICH CATEGORIES NEED TO BE IMPROVED:
IF "YES", INDICATE WHICH CATEGORIES NEED TO BE IMPROVED:

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 2.4.4.						
	HARBOUR LAUNCHES	SUBSTANTIALLY	ALITTLE	DO NOT KNOW		
1.1.		1	2	3	GRAND TOTAL	
1	MALE	18	57	14	89	
GRAND TOTAL		18	57	14	89	
1.2.		1	2	3	GRAND TOTAL	
2	ASIAN	1	5	1	7	
4	WHITE	16	48	11	75	
5	OTHER	1	4	2	7	
GRAND TOTAL		18	57	14	89	
			-	-		
1.3.		1	2	3	GRAND TOTAL	
3	30 TO 39 YEARS	1	1		2	
4	40 TO 49 YEARS	8	9		17	
5	50 TO 59 YEARS	6	41	9	56	
6	>59 YEARS	3	6	5	14	
GRAND TOTAL		18	57	14	89	
1.4.		1	2	3	GRAND TOTAL	
2	1 TO 5 YEARS		3		3	
3	6 TO 10 YEARS	4	7	1	12	
4	11 TO 20 YEARS	7	26	7	40	
5	>20 YEARS	7	21	6	34	
GRAND TOTAL		18	57	14	89	
1.5.		1	2	3	GRAND TOTAL	
1	1 PER ANNUM		1		1	
2	2 TO 5 PER ANNUM	8	30	8	46	
3	>5 PER ANNUM	10	26	6	42	
GRAND TOTAL		18	57	14	89	

IF "YES", INDICATE WHICH CATEGORIES NEED TO BE IMPROVED:

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 2.4.5.						
	PILOTAGE	SUBSTANTIALLY	A LITTLE	DO NOT KNOW		
1.1.		1	2	3	GRAND TOTAL	
1	MALE	54	24	11	89	
GRAND TOTAL		54	24	11	89	
1.2.		1	2	3	GRAND TOTAL	
2	ASIAN	5	1	1	7	
4	WHITE	46	21	8	75	
5	OTHER	3	2	2	7	
GRAND TOTAL		54	24	11	89	
1.3.		1	2	3	GRAND TOTAL	
3	30 TO 39 YEARS		2		2	
4	40 TO 49 YEARS	13	2	2	17	
5	50 TO 59 YEARS	36	14	6	56	
6	>59 YEARS	5	6	3	14	
GRAND TOTAL		54	24	11	89	
1.4.		1	2	3	GRAND TOTAL	
2	1 TO 5 YEARS	2	1		3	
3	6 TO 10 YEARS	7	3	2	12	
4	11 TO 20 YEARS	26	9	5	40	
5	>20 YEARS	19	11	4	34	
GRAND TOTAL		54	24	11	89	
1.5.		1	2	3	GRAND TOTAL	
1	1 PER ANNUM		1		1	
2	2 TO 5 PER ANNUM	30	9	7	46	
3	>5 PER ANNUM	24	14	4	42	
GRAND TOTAL		54	24	11	89	

IF "YES", INDICATE WHICH CATEGORIES NEED TO BE IMPROVED

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 2.4.6.					
	TUGS AND CRAFT	SUBSTANTIALLY	A LITTLE	DO NOT KNOW	
1.1.		1	2	3	GRAND TOTAL
1	MALE	41	40	8	89
GRAND TOTAL		41	40	8	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	4	2	1	7
4	WHITE	36	34	5	75
5	OTHER	1	4	2	7
GRAND TOTAL		41	40	8	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS		2		2
4	40 TO 49 YEARS	11	6		17
5	50 TO 59 YEARS	25	26	5	56
6	>59 YEARS	5	6	3	14
GRAND TOTAL		41	40	8	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	1	2		3
3	6 TO 10 YEARS	6	5	1	12
4	11 TO 20 YEARS	20	17	3	40
5	>20 YEARS	14	16	4	34
GRAND TOTAL		41	40	8	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM	1			1
2	2 TO 5 PER ANNUM	20	22	4	46
3	>5 PER ANNUM	20	18	4	42
GRAND TOTAL		41	40	8	89

SINCE 2002, COMPARED TO OTHER PORTS ALONG THE EAST COAST OF SOUTHERN AFRICA, DURBAN'S PORT CHARGES ARE, ON AVERAGE:

-

SURVETQ		VESSEL MASTERS 3.1.		
		HIGHER	SIMILAR	
1.1.		1	2	GRAND TOTAL
1	MALE	22	67	89
GRAND TOTAL		22	67	89
1.2.		1	2	GRAND TOTAL
2	ASIAN	2	5	7
4	WHITE	19	56	75
5	OTHER	1	6	7
GRAND		22	67	89
TOTAL				
1.3.		1	2	GRAND TOTAL
3	30 TO 39 YEARS		2	2
4	40 TO 49 YEARS	7	10	17
5	50 TO 59 YEARS	12	44	56
6	>59 YEARS	3	11	14
GRAND TOTAL		22	67	89
1.4.		1	2	GRAND TOTAL
2	1 TO 5 YEARS		3	3
3	6 TO 10 YEARS	2	10	12
4	11 TO 20 YEARS	10	30	40
5	>20 YEARS	10	24	34
GRAND		22	67	89
TOTAL				
1.5.		1	2	GRAND TOTAL
1	1 PER ANNUM		1	1
2	2 TO 5 PER ANNUM	12	34	46
3	>5 PER ANNUM	10	32	42
GRAND TOTAL		22	67	89

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 3.1.

SURVEY C	QUESTIONNAIRE COUNT	VESSEL MAS	TERS 3.2.		
		YES	NO	DO NOT KNOW	
1.1.		1	2	3	GRAND TOTAL
1	MALE	50	33	6	89
GRAND TOTAL		50	33	6	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	4	3		7
4	WHITE	43	26	6	75
5	OTHER	3	4		7
GRAND TOTAL		50	33	6	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS			2	2
4	40 TO 49 YEARS	12	2	3	17
5	50 TO 59 YEARS	34	21	1	56
6	>59 YEARS	4	10		14
GRAND TOTAL		50	33	6	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS		3		3
3	6 TO 10 YEARS	6	3	3	12
4	11 TO 20 YEARS	21	16	3	40
5	>20 YEARS	23	11		34
GRAND TOTAL		50	33	6	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM		1		1
2	2 TO 5 PER ANNUM	26	18	2	46
3	>5 PER ANNUM	24	14	4	42
GRAND TOTAL		50	33	6	89

ARE THERE ANY REASONABLE MEASURES THAT CAN REDUCE PORT CHARGES AT THE PORT OF DURBAN?

SURVEY Q	UESTIONNAIRE COUNT	: VESSEL MAST	ERS 3.4.1.		
	CAR TERMINAL	BETTER	SIMILAR	WORSE	
1.1.		1	2	3	GRAND TOTAL
1	MALE	33	53	3	89
GRAND TOTAL		33	53	3	89
			-		
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	2	5		7
4	WHITE	29	44	2	75
5	OTHER	2	4	1	7
GRAND TOTAL		33	53	3	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	2			2
4	40 TO 49 YEARS	5	12		17
5	50 TO 59 YEARS	22	32	2	56
6	>59 YEARS	4	9	1	14
GRAND TOTAL		33	53	3	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS		3		3
3	6 TO 10 YEARS	4	8		12
4	11 TO 20 YEARS	15	24	1	40
5	>20 YEARS	14	18	2	34
GRAND TOTAL		33	53	3	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM		1		1
2	2 TO 5 PER ANNUM	15	30	1	46
3	>5 PER ANNUM	17	22	2	42
GRAND TOTAL		33	53	3	89

	CONTAINER TERMINAL	BETTER	SIMILAR	WORSE	
1.1.		1	2	3	GRAND TOTAL
1	MALE	11	33	45	89
GRAND TOTAL		11	33	45	89
.2.		1	2	3	GRAND TOTAL
2	ASIAN	1	3	3	7
4	WHITE	9	28	38	75
5	OTHER	1	2	4	7
GRAND TOTAL		11	33	45	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	2			2
1	40 TO 49 YEARS	1	5	11	17
5	50 TO 59 YEARS	8	19	29	56
6	>59 YEARS		9	5	14
GRAND FOTAL		11	33	45	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS		3		3
3	6 TO 10 YEARS	2	3	7	12
4	11 TO 20 YEARS	6	16	18	40
5	>20 YEARS	3	11	20	34
GRAND TOTAL		11	33	45	89
15		1	2	3	
1.5.			1		
2		5	16	25	46
<u>-</u> 3		6	16	20	40
		11	33	45	90
TOTAL			55		03

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 3.4.2.

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 3.4.3.					
	GAS, CHEMICAL AND	BETTER	SIMILAR	WORSE	
1.1.		1	2	3	GRAND TOTAL
1	MALE	19	67	3	89
GRAND TOTAL		19	67	3	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN		7		7
4	WHITE	18	54	3	75
5	OTHER	1	6		7
GRAND TOTAL		19	67	3	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS		2		2
4	40 TO 49 YEARS	1	16		17
5	50 TO 59 YEARS	18	36	2	56
6	>59 YEARS		13	1	14
GRAND TOTAL		19	67	3	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS		3		3
3	6 TO 10 YEARS	1	11		12
4	11 TO 20 YEARS	11	28	1	40
5	>20 YEARS	7	25	2	34
GRAND TOTAL		19	67	3	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM		1		1
2	2 TO 5 PER ANNUM	9	36	1	46
3	>5 PER ANNUM	9	30	2	42
GRAND TOTAL		19	67	3	89

	GENERAL CARGO	BETTER	SIMILAR	WORSE	
1.1.		1	2	3	GRAND TOTAL
1	MALE	11	52	26	89
GRAND TOTAL		11	52	26	89
1.0		1	2	2	
0			5	0	
2	ASIAN	10	5	2	7
4	WHITE	10	42	23	75
5	OTHER	1	5	1	/
GRAND TOTAL		11	52	26	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS		2	-	2
4	40 TO 49 YEARS		11	6	17
5	50 TO 59 YEARS	10	27	19	56
6	>59 YEARS	1	12	1	14
GRAND		11	52	26	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS		2	1	3
3	6 TO 10 YEARS		11	1	12
4	11 TO 20 YEARS	7	23	10	40
5	>20 YEARS	4	16	14	34
GRAND TOTAL		11	52	26	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM		1		1
2	2 TO 5 PER ANNUM	6	23	17	46
3	>5 PER ANNUM	6	28	9	42
GRAND TOTAL		11	52	26	89

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 3.4.4.

RATE THE EFFICIENCY AT THE PORT OF DURBAN'S CARGO HANDLING FACILITIES COMPARED TO OTHER PORTS ALONG THE EAST COAST OF SOUTHERN AFRICA IN THE FOLLOWING CATEGORIES:

	CAR TERMINAL	BETTER	SIMILAR	WORSE	
1.1.		1	2	3	GRAND TOTAL
1	MALE	39	46	4	89
GRAND TOTAL		39	46	4	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	2	5		7
4	WHITE	35	37	3	75
5	OTHER	2	4	1	7
GRAND TOTAL		39	46	4	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	2			2
4	40 TO 49 YEARS	5	11	1	17
5	50 TO 59 YEARS	25	29	2	56
6	>59 YEARS	7	6	1	14
GRAND TOTAL		39	46	4	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	1	2		3
3	6 TO 10 YEARS	5	7		12
4	11 TO 20 YEARS	16	22	2	40
5	>20 YEARS	17	15	2	34
GRAND TOTAL		39	46	4	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM		1		1
2	2 TO 5 PER ANNUM	19	25	2	46
3	>5 PER ANNUM	20	20	2	42
GRAND TOTAL		39	46	4	89

RATE THE EFFICIENCY AT THE PORT OF DURBAN'S CARGO HANDLING FACILITIES COMPARED TO OTHER PORTS ALONG THE EAST COAST OF SOUTHERN AFRICA IN THE FOLLOWING CATEGORIES:

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SURVEY Q	UESTIONNAIRE COUNT:	VESSEL MASTEF	RS 3.5.2.		
	CONTAINER TERMINAL	BETTER	SIMILAR	WORSE	
1.1.		1	2	3	GRAND TOTAL
1	MALE	13	34	42	89
GRAND TOTAL		13	34	42	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	1	2	4	7
4	WHITE	11	30	34	75
5	OTHER	1	2	4	7
GRAND TOTAL		13	34	42	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	2			2
4	40 TO 49 YEARS	2	5	10	17
5	50 TO 59 YEARS	8	23	25	56
6	>59 YEARS	1	6	7	14
GRAND TOTAL		13	34	42	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	1	2		3
3	6 TO 10 YEARS	3	3	6	12
4	11 TO 20 YEARS	6	16	18	40
5	>20 YEARS	3	13	18	34
GRAND TOTAL		13	34	42	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM		1		1
2	2 TO 5 PER ANNUM	5	17	24	46
3	>5 PER ANNUM	8	16	18	42
GRAND TOTAL		13	34	42	89

RATE THE EFFICIENCY AT THE PORT OF DURBAN'S CARGO HANDLING FACILITIES COMPARED TO OTHER PORTS ALONG THE EAST COAST OF SOUTHERN AFRICA IN THE FOLLOWING CATEGORIES:

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 3.5.3.							
	GAS, CHEMICAL AND OIL TERMINAL	BETTER	SIMILAR	WORSE			
1.1.		1	2	3	GRAND TOTAL		
1	MALE	22	63	4	89		
GRAND TOTAL		22	63	4	89		
1.2.		1	2	3	GRAND TOTAL		
2	ASIAN		7		7		
4	WHITE	21	50	4	75		
5	OTHER	1	6		7		
GRAND TOTAL		22	63	4	89		
1.3.		1	2	3	GRAND TOTAL		
3	30 TO 39 YEARS	1	1		2		
4	40 TO 49 YEARS	3	13	1	17		
5	50 TO 59 YEARS	16	37	3	56		
6	>59 YEARS	2	12		14		
GRAND TOTAL		22	63	4	89		
1.4.		1	2	3	GRAND TOTAL		
2	1 TO 5 YEARS	1	2		3		
3	6 TO 10 YEARS	3	8	1	12		
4	11 TO 20 YEARS	10	28	2	40		
5	>20 YEARS	8	25	1	34		
GRAND TOTAL		22	63	4	89		
1.5.		1	2	3	GRAND TOTAL		
1	1 PER ANNUM		1		1		
2	2 TO 5 PER ANNUM	12	31	3	46		
3	>5 PER ANNUM	10	31	1	42		
GRAND TOTAL		22	63	4	89		

RATE THE EFFICIENCY AT THE PORT OF DURBAN'S CARGO HANDLING FACILITIES COMPARED TO OTHER PORTS ALONG THE EAST COAST OF SOUTHERN AFRICA IN THE FOLLOWING CATEGORIES:

SURVEY Q	UESTIONNAIRE COUNT: V	ESSEL MASTERS 3	5.4.		
	GENERAL CARGO TERMINAL	BETTER	SIMILAR	WORSE	
1.1.		1	2	3	GRAND TOTAL
1	MALE	12	56	21	89
GRAND TOTAL		12	56	21	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN		5	2	7
4	WHITE	11	46	18	75
5	OTHER	1	5	1	7
GRAND TOTAL		12	56	21	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	1	1		2
4	40 TO 49 YEARS	1	12	4	17
5	50 TO 59 YEARS	9	31	16	56
6	>59 YEARS	1	12	1	14
GRAND TOTAL		12	56	21	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	1	1	1	3
3	6 TO 10 YEARS	2	9	1	12
4	11 TO 20 YEARS	6	26	8	40
5	>20 YEARS	3	20	11	34
GRAND TOTAL		12	56	21	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM		1		1
2	2 TO 5 PER ANNUM	6	26	14	46
3	>5 PER ANNUM	6	29	7	42
GRAND TOTAL		12	56	21	89

DOES THE VESSEL TRAFFIC SYSTEM (VTS) PROVIDE ACCURATE NAVIGATION INFORMATION DURING P	ORT
OPERATIONS AT THE PORT OF DURBAN?	

SURVEY Q	SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 3.6.						
		ALWAYS	SOMETIMES	NEVER			
1.1.		1	2	3	GRAND TOTAL		
1	MALE	25	53	11	89		
GRAND		25	53	11	89		
TOTAL							
1.2.		1	2	3	GRAND TOTAL		
2	ASIAN	4	3		7		
4	WHITE	18	46	11	75		
5	OTHER	3	4		7		
GRAND		25	53	11	89		
TOTAL							
1.3.		1	2	3	GRAND TOTAL		
3	30 TO 39 YEARS	1	1		2		
4	40 TO 49 YEARS	4	13		17		
5	50 TO 59 YEARS	15	32	9	56		
6	>59 YEARS	5	7	2	14		
GRAND		25	53	11	89		
TOTAL							
1.4.		1	2	3	GRAND TOTAL		
2	1 TO 5 YEARS	2	1		3		
3	6 TO 10 YEARS	2	10		12		
4	11 TO 20 YEARS	9	26	5	40		
5	>20 YEARS	12	16	6	34		
GRAND		25	53	11	89		
TOTAL							
1.5.		1	2	3	GRAND TOTAL		
1	1 PER ANNUM	1	1		1		
2	2 TO 5 PER ANNUM	12	29	5	46		
3	>5 PER ANNUM	14	23	6	42		
GRAND		25	53	11	89		
TOTAL							

RATE THE SKILLS OBSERVED OF EMPLOYEES AT THE PORT OF DURBAN SINCE 2002 IN THE FOLLOWING CATEGORIES:

SURVEY Q	SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 4.1.1.					
	CARGO HANDLING	ABOVE AVERAGE	AVERAGE	BELOW AVERAGE		
1.1.		1	2	3	GRAND TOTAL	
1	MALE	9	48	32	89	
GRAND TOTAL		9	48	32	89	
1.2.		1	2	3	GRAND TOTAL	
2	ASIAN		4	3	7	
4	WHITE	8	39	28	75	
5	OTHER	1	5	1	7	
GRAND TOTAL		9	48	32	89	
1.3.		1	2	3	GRAND TOTAL	
3	30 TO 39 YEARS		2		2	
4	40 TO 49 YEARS		11	6	17	
5	50 TO 59 YEARS	8	24	24	56	
6	>59 YEARS	1	11	2	14	
GRAND TOTAL		9	48	32	89	
1.4.		1	2	3	GRAND TOTAL	
2	1 TO 5 YEARS		2	1	3	
3	6 TO 10 YEARS		10	2	12	
4	11 TO 20 YEARS	6	18	16	40	
5	>20 YEARS	3	18	13	34	
GRAND TOTAL		9	48	32	89	
1.5.		1	2	3	GRAND TOTAL	
1	1 PER ANNUM		1		1	
2	2 TO 5 PER ANNUM	3	25	18	46	
3	>5 PER ANNUM	6	22	14	42	
GRAND TOTAL		9	48	32	89	

RATE THE SKILLS OBSERVED OF EMPLOYEES AT THE PORT OF DURBAN SINCE 2002 IN THE FOLLOWING CATEGORIES:

	MARINE OPERATIONS	ABOVE AVERAGE	AVERAGE	BELOW AVERAGE	
1.1.		1	2	3	GRAND TOTAL
1	MALE	12	43	34	89
GRAND TOTAL		12	43	34	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	1	3	3	7
4	WHITE	9	37	29	75
5	OTHER	2	3	2	7
GRAND TOTAL		12	43	34	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	1	1		2
4	40 TO 49 YEARS	1	6	10	17
5	50 TO 59 YEARS	7	29	20	56
6	>59 YEARS	3	7	4	14
GRAND TOTAL		12	43	34	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS		1	2	3
3	6 TO 10 YEARS	3	5	4	12
4	11 TO 20 YEARS	5	17	18	40
5	>20 YEARS	4	20	10	34
GRAND TOTAL		12	43	34	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM			1	1
2	2 TO 5 PER ANNUM	6	24	16	46
3	>5 PER ANNUM	6	19	17	42
GRAND TOTAI		12	43	34	89

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 4.1.2.

RATE THE SKILLS OBSERVED OF EMPLOYEES AT THE PORT OF DURBAN SINCE 2002 IN THE FOLLOWING CATEGORIES:

	EMERGENCY	ABOVE AVERAGE	AVERAGE	BELOW AVERAGE	
1.1.	SERVICES	1	2	3	GRAND TOTAL
1	MALE	18	67	4	89
GRAND TOTAL		18	67	4	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	1	6		7
4	WHITE	17	54	4	75
5	OTHER		7		7
GRAND TOTAL		18	67	4	89
1.0					
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	0	2		2
4	40 TO 49 YEARS	3	14		17
5	50 TO 59 YEARS	11	41	4	56
6	>59 YEARS	4	10		14
GRAND TOTAL		18	67	4	89
1.4.		1	2	3	GRAND TOTAL
2			3		3
3	6 TO TU YEARS	2	10		12
4	11 TO 20 YEARS	10	29	1	40
5	>20 YEARS	6	25	3	34
GRAND TOTAL		18	67	4	89
1.5.		1	2	3	GRAND TOTAL
1			1		1
2	2 10 5 PER ANNUM	9	36	1	46
3	>5 PER ANNUM	9	30	3	42
GRAND TOTAL		18	67	4	89

RATE THE SKILLS OBSERVED OF EMPLOYEES AT THE PORT OF DURBAN SINCE 2002 IN THE FOLLOWING CATEGORIES:

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 4.1.4.						
	DRY-DOCK AND SHIP REPAIR FACILITIES	ABOVE AVERAGE	AVERAGE	BELOW AVERAGE		
1.1.		1	2	3	GRAND TOTAL	
1	MALE	10	57	22	89	
GRAND TOTAL		10	57	22	89	
1.2.		1	2	3	GRAND TOTAL	
2	ASIAN	1	5	1	7	
4	WHITE	9	45	21	75	
5	OTHER		7		7	
GRAND TOTAL		10	57	22	89	
1.3.		1	2	3	GRAND TOTAL	
3	30 TO 39 YEARS	1	1		2	
4	40 TO 49 YEARS	1	13	3	17	
5	50 TO 59 YEARS	7	32	17	56	
6	>59 YEARS	1	11	2	14	
GRAND TOTAL		10	57	22	89	
1.4.		1	2	3	GRAND TOTAL	
2	1 TO 5 YEARS		3		3	
3	6 TO 10 YEARS	3	9		12	
4	11 TO 20 YEARS	5	22	13	40	
5	>20 YEARS	2	23	9	34	
GRAND TOTAL		10	57	22	89	
1.5.		1	2	3	GRAND TOTAL	
1	1 PER ANNUM		1		1	
2	2 TO 5 PER ANNUM	5	33	8	46	
3	>5 PER ANNUM	5	23	14	42	
GRAND TOTAI		10	57	22	89	

COMPARED TO OTHER PORTS ALONG THE EAST COAST OF SOUTHERN AFRICA, RATE THE INNOVATION OF DURBAN'S PORT ADMINISTRATORS IN TERMS OF PORT OPERATIONS.

SURVEY Q	SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 5.1.					
		BETTER	SIMILAR	NOT AS GOOD		
1.1.		1	2	3	GRAND TOTAL	
1	MALE	10	46	33	89	
GRAND TOTAL		10	46	33	89	
1.2.		1	2	3	GRAND TOTAL	
2	ASIAN		2	5	7	
4	WHITE	8	40	27	75	
5	OTHER	2	4	1	7	
GRAND TOTAL		10	46	33	89	
1.3.		1	2	3	GRAND TOTAL	
3	30 TO 39 YEARS	1	1		2	
4	40 TO 49 YEARS	1	5	11	17	
5	50 TO 59 YEARS	4	32	20	56	
6	>59 YEARS	4	8	2	14	
GRAND TOTAL		10	46	33	89	
1.4.		1	2	3	GRAND TOTAL	
2	1 TO 5 YEARS		2	1	3	
3	6 TO 10 YEARS	2	7	3	12	
4	11 TO 20 YEARS	5	21	14	40	
5	>20 YEARS	3	16	15	34	
GRAND TOTAL		10	46	33	89	
1.5.		1	2	3	GRAND TOTAL	
1	1 PER ANNUM		1		1	
2	2 TO 5 PER ANNUM	6	23	17	46	
3	>5 PER ANNUM	4	22	16	42	
GRAND TOTAL		10	46	33	89	

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SURVET QUESTIONNAIRE COUNT. VESSEL MASTERS 5.2.1.						
	MARINE OPERATIONS	YES	NO	DO NOT KNOW		
1.1.		1	2	3	GRAND TOTAL	
1	MALE	27	60	2	89	
GRAND TOTAL		27	60	2	89	
1.2.		1	2	3	GRAND TOTAL	
2	ASIAN	2	5		7	
4	WHITE	21	52	2	75	
5	OTHER	4	3		7	
GRAND TOTAL		27	60	2	89	
1.3.		1	2	3	GRAND TOTAL	
3	30 TO 39 YEARS	2			2	
4	40 TO 49 YEARS	2	13	2	17	
5	50 TO 59 YEARS	17	39		56	
6	>59 YEARS	6	8		14	
GRAND TOTAL		27	60	2	89	
1.4.		1	2	3	GRAND TOTAL	
2	1 TO 5 YEARS	1	2		3	
3	6 TO 10 YEARS	3	7	2	12	
4	11 TO 20 YEARS	12	28		40	
5	>20 YEARS	11	23		34	
GRAND TOTAL		27	60	2	89	
1.5.		1	2	3	GRAND TOTAL	
1	1 PER ANNUM		1		1	
2	2 TO 5 PER ANNUM	14	32		46	
3	>5 PER ANNUM	13	27	2	42	
GRAND TOTAL		27	60	2	89	

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 5.2.1.

SURVEY QI	JESTIONNAIRE COUNT:	: VESSEL MASTERS 5	5.2.2.		
	CONTAINER HANDLING OPERATIONS	YES	NO	DO NOT KNOW	
1.1.		1	2	3	GRAND TOTAL
1	MALE	24	61	4	89
GRAND TOTAL		24	61	4	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	3	4		7
4	WHITE	18	53	4	75
5	OTHER	3	4		7
GRAND TOTAL		24	61	4	89
			-		
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	2		-	2
4	40 TO 49 YEARS	3	12	2	17
5	50 TO 59 YEARS	16	39	1	56
6	>59 YEARS	3	10	1	14
GRAND TOTAL		24	61	4	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	2	1		3
3	6 TO 10 YEARS	3	8	1	12
4	11 TO 20 YEARS	14	25	1	40
5	>20 YEARS	5	27	2	34
GRAND TOTAL		24	61	4	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM	1			1
2	2 TO 5 PER ANNUM	14	31	1	46
3	>5 PER ANNUM	9	30	3	42
GRAND TOTAL		24	61	4	89

	CAR HANDLING	YES	NO	DO NOT KNOW	
1 1	OPERATIONS	1	2	2	
1.1.			2	3	
	MALE	55	15	19	89
TOTAL		55	15	19	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	3	2	2	7
4	WHITE	46	13	16	75
5	OTHER	6		1	7
GRAND TOTAL		55	15	19	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	2			2
4	40 TO 49 YEARS	7	4	6	17
5	50 TO 59 YEARS	36	9	11	56
6	>59 YEARS	10	2	2	14
GRAND TOTAL		55	15	19	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	2		1	3
3	6 TO 10 YEARS	7	1	4	12
4	11 TO 20 YEARS	26	8	6	40
5	>20 YEARS	20	6	8	34
GRAND TOTAL		55	15	19	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM	1			1
2	2 TO 5 PER ANNUM	28	7	11	46
3	>5 PER ANNUM	26	8	8	42
GRAND TOTAI		55	15	19	89

SURVEY Q	UESTIONNAIRE COUNT	: VESSEL MASTER	RS 5.2.4.		
	GAS, CHEMICAL AND OIL OPERATIONS	YES	NO	DO NOT KNOW	
1.1.		1	2	3	GRAND TOTAL
1	MALE	65	5	19	89
GRAND TOTAL		65	5	19	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	6		1	7
4	WHITE	52	5	18	75
5	OTHER	7			7
GRAND TOTAL		65	5	19	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	2			2
4	40 TO 49 YEARS	11		6	17
5	50 TO 59 YEARS	41	4	11	56
6	>59 YEARS	11	1	2	14
GRAND TOTAL		65	5	19	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	3			3
3	6 TO 10 YEARS	10		2	12
4	11 TO 20 YEARS	28	1	11	40
5	>20 YEARS	24	4	6	34
GRAND TOTAL		65	5	19	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM			1	1
2	2 TO 5 PER ANNUM	36		10	46
3	>5 PER ANNUM	29	5	8	42
GRAND TOTAL		65	5	19	89

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SURVET QU	LOINNAIRE COUNT. VI	LUCE	2.J.		
	GENERAL CARGO	YES	NO	DO NOT KNOW	
1.1.		1	2	3	GRAND TOTAL
1	MALE	37	45	7	89
GRAND TOTAL		37	45	7	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	4	3		7
4	WHITE	29	40	6	75
5	OTHER	4	2	1	7
GRAND TOTAL		37	45	7	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	1	1		2
4	40 TO 49 YEARS	5	9	3	17
5	50 TO 59 YEARS	24	31	1	56
6	>59 YEARS	7	4	3	14
GRAND TOTAL		37	45	7	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	2	1		3
3	6 TO 10 YEARS	7	3	2	12
4	11 TO 20 YEARS	18	21	1	40
5	>20 YEARS	10	20	4	34
GRAND TOTAL		37	45	7	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM	1			1
2	2 TO 5 PER ANNUM	22	23	1	46
3	>5 PER ANNUM	14	22	6	42
GRAND TOTAL		37	45	7	89

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 5.2.5.

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 5.2.6.						
	RAILWAY	YES	NO	DO NOT KNOW		
1.1.		1	2	3	GRAND TOTAL	
1	MALE	39	16	34	89	
GRAND TOTAL		39	16	34	89	
1.2.			2	3	GRAND TOTAL	
2	ASIAN		1	4	7	
4	WHITE		14	27	75	
5	OTHER	1	1	3	7	
GRAND TOTAL		13	16	34	89	
1.3.		1	2	3	GRAND TOTAL	
3	30 TO 39 YEARS		1	1	2	
4	40 TO 49 YEARS	4	6	7	17	
5	50 TO 59 YEARS	28	8	20	56	
6	>59 YEARS	7	1	6	14	
GRAND TOTAL		39	16	34	89	
1.4.		1	2	3	GRAND TOTAL	
2	1 TO 5 YEARS	1		2	3	
3	6 TO 10 YEARS	5	2	5	12	
4	11 TO 20 YEARS	17	8	15	40	
5	>20 YEARS	16	6	12	34	
GRAND TOTAL		39	16	34	89	
1.5.		1	2	3	GRAND TOTAL	
1	1 PER ANNUM	1			1	
2	2 TO 5 PER ANNUM	22	10	14	46	
3	>5 PER ANNUM	16	6	20	42	
GRAND TOTAL		39	16	34	89	

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 5.2.6.

COMPARED TO OTHER PORTS ALONG THE EAST COAST OF SOUTHERN AFRICA THE TURNAROUND TIME OF THE FOLLOWING CATEGORIES HAS:

SURVEY Q	UESTIONNAIRE COUNT	: VESSEL MASTER	S 6.1.1.		
	CARGO HANDLING	IMPROVED	REMAINED THE	WORSENED	
			SAME		
1.1.		1	2	3	GRAND TOTAL
1	MALE	12	39	38	89
GRAND TOTAL		12	39	38	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	2	2	3	7
4	WHITE	9	34	32	75
5	OTHER	1	3	3	7
GRAND TOTAL		12	39	38	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	1	1		2
4	40 TO 49 YEARS	2	8	7	17
5	50 TO 59 YEARS	7	20	29	56
6	>59 YEARS	2	10	2	14
GRAND TOTAL		12	39	38	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	1	1	1	3
3	6 TO 10 YEARS	2	8	2	12
4	11 TO 20 YEARS	6	16	18	40
5	>20 YEARS	3	14	17	34
GRAND TOTAL		12	39	38	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM	1			1
2	2 TO 5 PER ANNUM	5	22	19	46
3	>5 PER ANNUM	6	17	19	42
GRAND TOTAL		12	39	38	89

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 6.1.1.

COMPARED TO OTHER PORTS ALONG THE EAST COAST OF SOUTHERN AFRICA THE TURNAROUND TIME OF THE FOLLOWING CATEGORIES HAS:

SURVEY QU	JESTIONNAIRE COUNT:		RS 6.1.2.		
	SHIP REPAIR	IMPROVED	REMAINED THE	WORSENED	
			SAME		
1.1.		1	2	3	GRAND TOTAL
1	MALE	11	53	25	89
GRAND		11	53	25	89
TOTAL					
1.2.		1	2	3	GRAND TOTAL
2	ASIAN		6	1	7
4	WHITE	10	42	23	75
5	OTHER	1	5	1	7
GRAND TOTAL		11	53	25	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	2			2
4	40 TO 49 YEARS		11	6	17
5	50 TO 59 YEARS	8	30	18	56
6	>59 YEARS	1	12	1	14
GRAND TOTAL		11	53	25	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS		3		3
3	6 TO 10 YEARS	2	7	3	12
4	11 TO 20 YEARS	7	22	11	40
5	>20 YEARS	2	21	11	34
GRAND TOTAL		11	53	25	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM	1			1
2	2 TO 5 PER ANNUM	5	32	9	46
3	>5 PER ANNUM	5	21	16	42
GRAND TOTAL		11	53	25	89

COMPARED TO OTHER PORTS ALONG THE EAST COAST OF SOUTHERN AFRICA THE TURNAROUND TIME OF THE FOLLOWING CATEGORIES HAS:

SURVEY QU	SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 6.1.3.					
	EMERGENCY	IMPROVED	REMAINED THE	WORSENED		
	SERVICES		SAME			
1.1.		1	2	3	GRAND TOTAL	
1	MALE	20	67	2	89	
GRAND TOTAL		20	67	2	89	
1.2.		1	2	3	GRAND TOTAL	
2	ASIAN	1	6		7	
4	WHITE	18	56	1	75	
5	OTHER	1	5	1	7	
GRAND TOTAL		20	67	2	89	
1.3.		1	2	3	GRAND TOTAL	
3	30 TO 39 YEARS		2		2	
4	40 TO 49 YEARS	4	13		17	
5	50 TO 59 YEARS	13	42	1	56	
6	>59 YEARS	3	10	1	14	
GRAND TOTAL		20	67	2	89	
1.4.		1	2	3	GRAND TOTAL	
2	1 TO 5 YEARS		3		3	
3	6 TO 10 YEARS	3	9		12	
4	11 TO 20 YEARS	10	30		40	
5	>20 YEARS	7	25	2	34	
GRAND TOTAL		20	67	2	89	
1.5.		1	2	3	GRAND TOTAL	
1	1 PER ANNUM	1			1	
2	2 TO 5 PER ANNUM	10	35	1	46	
3	>5 PER ANNUM	9	32	1	42	
GRAND TOTAL		20	67	2	89	

COMPARED TO OTHER PORTS ALONG THE EAST COAST OF SOUTHERN AFRICA THE TURNAROUND TIME OF THE FOLLOWING CATEGORIES HAS:

	MARINE	IMPROVED	REMAINED THE	WORSENED	
			SAME		
1.1.		1	2	3	GRAND TOTAL
1	MALE	10	32	47	89
GRAND TOTAL		10	32	47	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN		2	5	7
4	WHITE	9	27	39	75
5	OTHER	1	3	3	7
GRAND TOTAL		10	32	47	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	2			2
4	40 TO 49 YEARS		6	11	17
5	50 TO 59 YEARS	7	17	32	56
6	>59 YEARS	1	9	4	14
GRAND TOTAL		10	32	47	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS		1	2	3
3	6 TO 10 YEARS	2	4	6	12
4	11 TO 20 YEARS	4	15	21	40
5	>20 YEARS	4	12	18	34
GRAND TOTAL		10	32	47	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM			1	1
2	2 TO 5 PER ANNUM	4	17	25	46
3	>5 PER ANNUM	6	15	21	42
GRAND TOTAL		10	32	47	89

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 6.2.1.					
	CARGO HANDLING	IMPROVED	REMAINED THE	WORSENED	
			SAME		
1.1.		1	2	3	GRAND TOTAL
1	MALE	10	36	43	89
GRAND TOTAL		10	36	43	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	2	2	3	7
4	WHITE	7	31	37	75
5	OTHER	1	3	3	7
GRAND TOTAL		10	36	43	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	1	1		2
4	40 TO 49 YEARS	2	7	8	17
5	50 TO 59 YEARS	5	19	32	56
6	>59 YEARS	2	9	3	14
GRAND TOTAL		10	36	43	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	1	1	1	3
3	6 TO 10 YEARS	2	8	2	12
4	11 TO 20 YEARS	5	13	22	40
5	>20 YEARS	2	14	18	34
GRAND TOTAL		10	36	43	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM	1			1
2	2 TO 5 PER ANNUM	4	19	23	46
3	>5 PER ANNUM	5	17	20	42
GRAND TOTAL		10	36	43	89

SURVEY Q	UESTIONNAIRE COUNT	: VESSEL MASTE	RS 6.2.2.		
	DRY-DOCK AND	IMPROVED	REMAINED THE	WORSENED	
	SHIP REPAIR		SAME		
1.1.		1	2	3	GRAND TOTAL
1	MALE	9	53	27	89
GRAND TOTAL		9	53	27	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN		7		7
4	WHITE	8	42	25	75
5	OTHER	1	4	2	7
GRAND TOTAL		9	53	27	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	2			2
4	40 TO 49 YEARS		12	5	17
5	50 TO 59 YEARS	6	31	19	56
6	>59 YEARS	1	10	3	14
GRAND TOTAL		9	53	27	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS		3		3
3	6 TO 10 YEARS	2	7	3	12
4	11 TO 20 YEARS	6	22	12	40
5	>20 YEARS	1	21	12	34
GRAND TOTAL		9	53	27	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM	1			1
2	2 TO 5 PER ANNUM	4	31	11	46
3	>5 PER ANNUM	4	22	16	42
GRAND TOTAL		9	53	27	89

	EMERGENCY	IMPROVED	REMAINED THE	WORSENED	
	SERVICES		SAME		
11		1	2	3	GRAND TOTAL
1.1.	MALE	12	68	0	80
		12	69	9	09
TOTAL		12	00	9	09
1.2.		1	2	3	GRAND TOTAL
2	ASIAN		7		7
4	WHITE	11	56	8	75
5	OTHER	1	5	1	7
GRAND TOTAL		12	68	9	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	2			2
4	40 TO 49 YEARS		5	12	17
5	50 TO 59 YEARS	4	18	34	56
6	>59 YEARS	2	5	7	14
GRAND		12	68	9	89
TOTAL					
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS		3		3
3	6 TO 10 YEARS	2	10		12
4	11 TO 20 YEARS	8	28	4	40
5	>20 YEARS	2	27	5	34
GRAND TOTAL		12	68	9	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM	1			1
2	2 TO 5 PER ANNUM	6	36	4	46
3	>5 PER ANNUM	5	32	5	42
GRAND TOTAL		12	68	9	89

CONVETO				WORSENED	
		INFROVED		WORSENED	
			SAME	-	
1.1.		1	2	3	GRAND TOTAL
1	MALE	8	28	53	89
GRAND TOTAL		8	28	53	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN		2	5	7
4	WHITE	7	23	45	75
5	OTHER	1	3	3	7
GRAND TOTAL		8	28	53	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	2			2
4	40 TO 49 YEARS		5	12	17
5	50 TO 59 YEARS	4	18	34	56
6	>59 YEARS	2	5	7	14
GRAND TOTAL		8	28	53	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS		1	2	3
3	6 TO 10 YEARS	3	3	6	12
4	11 TO 20 YEARS	3	13	24	40
5	>20 YEARS	2	11	21	34
GRAND TOTAL		8	28	53	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM			1	1
2	2 TO 5 PER ANNUM	4	13	29	46
3	>5 PER ANNUM	4	15	23	42
GRAND TOTAL		8	28	53	89

THE LENGTH OF DELAYS AS A RESULT OF THE FOLLOWING FACTORS AT THE PORT OF DURBAN COMPARED TO THOSE IN OTHER PORTS ALONG THE EAST COAST OF SOUTHERN AFRICA ARE:

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 6.3.1.					
	CARGO AVAILABILITY	LONGER	SIMILAR	SHORTER	
1.1.		1	2	3	GRAND TOTAL
1	MALE	32	46	11	89
GRAND TOTAL		32	46	11	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	3	4		7
4	WHITE	27	38	10	75
5	OTHER	2	4	1	7
GRAND TOTAL		32	46	11	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS			2	2
4	40 TO 49 YEARS	5	11	1	17
5	50 TO 59 YEARS	22	29	5	56
6	>59 YEARS	5	6	3	14
GRAND TOTAL		32	46	11	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	1	1	1	3
3	6 TO 10 YEARS	2	8	2	12
4	11 TO 20 YEARS	13	21	6	40
5	>20 YEARS	16	16	2	34
GRAND TOTAL		32	46	11	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM		1		1
2	2 TO 5 PER ANNUM	18	25	3	46
3	>5 PER ANNUM	14	20	8	42
GRAND TOTAL		32	46	11	89

THE LENGTH OF DELAYS AS A RESULT OF THE FOLLOWING FACTORS AT THE PORT OF DURBAN COMPARED TO THOSE IN OTHER PORTS ALONG THEEAST COAST OF SOUTHERN AFRICA ARE:

	INDUSTRIAL ACTION	LONGER	SIMILAR	SHORTER	
1.1.		1	2	3	GRAND TOTAL
1	MALE	1	66	22	89
GRAND TOTAL		1	66	22	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN		5	2	7
4	WHITE	1	55	19	75
5	OTHER		6	1	7
GRAND TOTAL		1	66	22	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS		1	1	2
4	40 TO 49 YEARS	1	12	4	17
5	50 TO 59 YEARS		43	13	56
6	>59 YEARS		10	4	14
GRAND TOTAL		1	66	22	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS		1	2	3
3	6 TO 10 YEARS	1	7	4	12
4	11 TO 20 YEARS		30	10	40
5	>20 YEARS		28	6	34
GRAND TOTAL		1	66	22	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM		1		1
2	2 TO 5 PER ANNUM		34	12	46
3	>5 PER ANNUM	1	31	10	42
GRAND TOTAL		1	66	22	89

THE LENGTH OF DELAYS AS A RESULT OF THE FOLLOWING FACTORS AT THE PORT OF DURBAN COMPARED TO THOSE IN OTHER PORTS ALONG THE EAST COAST OF SOUTHERN AFRICA ARE:

	MARINE SERVICE	LONGER	SIMILAR	SHORTER	
1.1.		1	2	3	GRAND TOTAL
1	MALE	35	41	13	89
GRAND TOTAL		35	41	13	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	5	1	1	7
4	WHITE	29	34	12	75
5	OTHER	1	6		7
GRAND TOTAL		35	41	13	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS			2	2
4	40 TO 49 YEARS	10	5	2	17
5	50 TO 59 YEARS	20	28	8	56
6	>59 YEARS	5	8	1	14
GRAND TOTAL		35	41	13	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	1	1	1	3
3	6 TO 10 YEARS	4	5	3	12
4	11 TO 20 YEARS	17	16	7	40
5	>20 YEARS	13	19	2	34
GRAND TOTAL		35	41	13	89
1.5		1	2	3	GRAND TOTAL
1	1 PER ANNUM	1			1
2	2 TO 5 PEB ANNUM	20	20	6	46
3		14	20	7	42
GRAND		35	41	13	89
THE LENGTH OF DELAYS AS A RESULT OF THE FOLLOWING FACTORS AT THE PORT OF DURBAN COMPARED TO THOSE IN OTHER PORTS ALONG THE EAST COAST OF SOUTHERN AFRICA ARE:

SURVEY C	SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 6.3.4.				
	PILOTAGE	LONGER	SIMILAR	SHORTER	
1.1.		1	2	3	GRAND TOTAL
1	MALE	47	31	11	89
GRAND TOTAL		47	31	11	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	6		1	7
4	WHITE	38	27	10	75
5	OTHER	3	4		7
GRAND TOTAL		47	31	11	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS			2	2
4	40 TO 49 YEARS	11	4	2	17
5	50 TO 59 YEARS	30	20	6	56
6	>59 YEARS	6	7	1	14
GRAND TOTAL		47	31	11	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	2		1	3
3	6 TO 10 YEARS	5	4	3	12
4	11 TO 20 YEARS	21	14	5	40
5	>20 YEARS	19	13	2	34
GRAND TOTAL		47	31	11	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM		1		1
2	2 TO 5 PER ANNUM	29	13	4	46
3	>5 PER ANNUM	18	17	7	42
GRAND TOTAL		47	31	11	89

THE LENGTH OF DELAYS AS A RESULT OF THE FOLLOWING FACTORS AT THE PORT OF DURBAN COMPARED TO THOSE IN OTHER PORTS ALONG THE EAST COAST OF SOUTHERN AFRICA ARE:

SURVEY Q	SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 6.3.5.				
	WEATHER	LONGER	SIMILAR		
1.1.		2	3	GRAND TOTAL	
1	MALE	65	24	89	
GRAND TOTAL		65	24	89	
1.2.		2	3	GRAND TOTAL	
2	ASIAN	5	2	7	
4	WHITE	53	22	75	
5	OTHER	7		7	
GRAND TOTAL		65	24	89	
1.3.		2	3	GRAND TOTAL	
3	30 TO 39 YEARS		2	2	
4	40 TO 49 YEARS	13	4	17	
5	50 TO 59 YEARS	39	17	56	
6	>59 YEARS	13	1	14	
GRAND TOTAL		65	24	89	
1.4.		2	3	GRAND TOTAL	
2	1 TO 5 YEARS	2	1	3	
3	6 TO 10 YEARS	8	4	12	
4	11 TO 20 YEARS	30	10	40	
5	>20 YEARS	25	9	34	
GRAND TOTAL		65	24	89	
1.5.		2	3	GRAND TOTAL	
1	1 PER ANNUM	1		1	
2	2 TO 5 PER ANNUM	37	9	46	
3	>5 PER ANNUM	27	15	42	
GRAND TOTAL		65	24	89	

SURVETO		. VESSEL MAST				
	AVAILABILITY	LONGER	SIMILAR	SHORTER		
1.1.		1	2	3	GRAND TOTAL	
1	MALE	36	44	9	89	
GRAND TOTAL		36	44	9	89	
1.2.		1	2	3	GRAND TOTAL	
2	ASIAN	3	4		7	
4	WHITE	31	35	9	75	
5	OTHER	2	5		7	
GRAND TOTAL		36	44	9	89	
1.3.		1	2	3	GRAND TOTAL	
3	30 TO 39 YEARS		1	1	2	
4	40 TO 49 YEARS	6	11		17	
5	50 TO 59 YEARS	25	25	6	56	
6	>59 YEARS	5	7	2	14	
GRAND TOTAL		36	44	9	89	
1.4.		1	2	3	GRAND TOTAL	
2	1 TO 5 YEARS	1	2		3	
3	6 TO 10 YEARS	3	8	1	12	
4	11 TO 20 YEARS	16	18	6	40	
5	>20 YEARS	16	16	2	34	
GRAND TOTAL		36	44	9	89	
1.5.		1	2	3	GRAND TOTAL	
1	1 PER ANNUM		1		1	
2	2 TO 5 PER ANNUM	21	22	3	46	
3	>5 PER ANNUM	15	21	6	42	
GRAND TOTAL		36	44	9	89	

SUBVEY OUESTIONNAIRE COUNT: VESSEL MASTERS 6.4.1

	INDUSTRIAL ACTION	LONGER	SIMILAR	SHORTER	
1.1.		1	2	3	GRAND TOTAL
1	MALE	3	58	28	89
GRAND TOTAL		3	58	28	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN		5	2	7
4	WHITE	3	47	25	75
5	OTHER		6	1	7
GRAND TOTAL		3	58	28	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS		2		2
4	40 TO 49 YEARS	2	9	6	17
5	50 TO 59 YEARS	1	35	20	56
6	>59 YEARS		12	2	14
GRAND TOTAL		3	58	28	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS		3		3
3	6 TO 10 YEARS	1	7	4	12
4	11 TO 20 YEARS	1	25	14	40
5	>20 YEARS	1	23	10	34
GRAND TOTAL		3	58	28	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM		1		1
2	2 TO 5 PER ANNUM	1	30	15	46
3	>5 PER ANNUM	2	27	13	42
GRAND TOTAL		3	58	28	89

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 6.4.2.

	MARINE SERVICE	LONGER	SIMILAR	SHORTER	
1.1		1	2	2	
1.1.		1	2	3	GRAND TOTAL
1	MALE	33	47	9	89
GRAND TOTAL		33	47	9	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	4	2	1	7
4	WHITE	28	39	8	75
5	OTHER	1	6		7
GRAND TOTAL		33	47	9	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS			2	2
4	40 TO 49 YEARS	8	7	2	17
5	50 TO 59 YEARS	21	30	5	56
6	>59 YEARS	4	10		14
GRAND TOTAL		33	47	9	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	1	2		3
3	6 TO 10 YEARS	4	5	3	12
4	11 TO 20 YEARS	17	19	4	40
5	>20 YEARS	11	21	2	34
GRAND TOTAL		33	47	9	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM	1			1
2	2 TO 5 PER ANNUM	18	24	4	46
3	>5 PER ANNUM	14	23	5	42
GRAND TOTAL		33	47	9	89

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 6.4.3.

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 6.4.4.					
	PILOTAGE	LONGER	SIMILAR	SHORTER	
1.1.		1	2	3	GRAND TOTAL
1	MALE	52	30	7	89
GRAND TOTAL		52	30	7	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	6		1	7
4	WHITE	42	27	6	75
5	OTHER	4	3		7
GRAND TOTAL		52	30	7	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS			2	2
4	40 TO 49 YEARS	13	2	2	17
5	50 TO 59 YEARS	34	19	3	56
6	>59 YEARS	5	9		14
GRAND TOTAL		52	30	7	89
1 4		1		0	
1.4.		1	2	3	GRAND TOTAL
2		2	1		3
3	6 TO TO YEARS	/	2	3	12
4	11 10 20 YEARS	25	12	3	40
5	>20 YEARS	18	15	1	34
GRAND TOTAL		52	30	7	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM		1		1
2	2 TO 5 PER ANNUM	31	12	3	46
3	>5 PER ANNUM	21	17	4	42
GRAND TOTAL		52	30	7	89

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 6.4.4.

	WEATHER	LONGER	SIMILAR	SHORTER	
1.1.		1	2	3	GRAND TOTAL
1	MALE	2	61	26	89
GRAND TOTAL		2	61	26	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN		5	2	7
4	WHITE	2	49	24	75
5	OTHER		7		7
GRAND TOTAL		2	61	26	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS			2	2
4	40 TO 49 YEARS	1	10	6	17
5	50 TO 59 YEARS		38	18	56
6	>59 YEARS	1	13		14
GRAND TOTAL		2	61	26	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS		3		3
3	6 TO 10 YEARS		10	2	12
4	11 TO 20 YEARS	1	24	15	40
5	>20 YEARS	1	24	9	34
GRAND TOTAL		2	61	26	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM		1		1
2	2 TO 5 PER ANNUM		35	11	46
3	>5 PER ANNUM	2	25	15	42
GRAND TOTAL		2	61	26	89

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 6.4.5.

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 6.5.1.					
	CARGO AVAILABILTY	MORE OFTEN	SIMILAR	LESS OFTEN	
1.1.		1	2	3	GRAND TOTAL
1	MALE	33	49	7	89
GRAND TOTAL		33	49	7	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	1	6		7
4	WHITE	31	38	6	75
5	OTHER	1	5	1	7
GRAND TOTAL		33	49	7	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS			2	2
4	40 TO 49 YEARS	7	10		17
5	50 TO 59 YEARS	24	27	5	56
6	>59 YEARS	2	12		14
GRAND TOTAL		33	49	7	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	1	2		3
3	6 TO 10 YEARS	2	9	1	12
4	11 TO 20 YEARS	17	18	5	40
5	>20 YEARS	13	20	1	34
GRAND TOTAL		33	49	7	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM		1		1
2	2 TO 5 PER ANNUM	18	25	3	46
3	>5 PER ANNUM	15	23	4	42
GRAND TOTAL		33	49	7	89

SURVEY Q	SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 6.5.2.					
	INDUSTRIAL ACTION	MORE OFTEN	SIMILAR	LESS OFTEN		
1.1.		1	2	3	GRAND TOTAL	
1	MALE	4	61	24	89	
GRAND TOTAL		4	61	24	89	
1.2.		1	2	3	GRAND TOTAL	
2	ASIAN		5	2	7	
4	WHITE	4	50	21	75	
5	OTHER		6	1	7	
GRAND TOTAL		4	61	24	89	
1.3.		1	2	3	GRAND TOTAL	
3	30 TO 39 YEARS		1	1	2	
4	40 TO 49 YEARS	1	12	4	17	
5	50 TO 59 YEARS	3	35	18	56	
6	>59 YEARS		13	1	14	
GRAND TOTAL		4	61	24	89	
1.4.		1	2	3	GRAND TOTAL	
2	1 TO 5 YEARS		2	1	3	
3	6 TO 10 YEARS		12		12	
4	11 TO 20 YEARS	2	22	16	40	
5	>20 YEARS	2	25	7	34	
GRAND TOTAL		4	61	24	89	
1.5.		1	2	3	GRAND TOTAL	
1	1 PER ANNUM		1		1	
2	2 TO 5 PER ANNUM	2	32	12	46	
3	>5 PER ANNUM	2	28	12	42	
GRAND TOTAL		4	61	24	89	

SURVEY Q	SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 6.5.3.					
	MARINE SERVICE	MORE OFTEN	SIMILAR	LESS OFTEN		
1.1.		1	2	3	GRAND TOTAL	
1	MALE	36	47	6	89	
GRAND TOTAL		36	47	6	89	
1.2.		1	2	3	GRAND TOTAL	
2	ASIAN	3	4		7	
4	WHITE	31	38	6	75	
5	OTHER	2	5		7	
GRAND TOTAL		36	47	6	89	
1.3.		1	2	3	GRAND TOTAL	
3	30 TO 39 YEARS			2	2	
4	40 TO 49 YEARS	10	6	1	17	
5	50 TO 59 YEARS	22	31	3	56	
6	>59 YEARS	4	10		14	
GRAND TOTAL		36	47	6	89	
1.4.		1	2	3	GRAND TOTAL	
2	1 TO 5 YEARS	1	2		3	
3	6 TO 10 YEARS	5	6	1	12	
4	11 TO 20 YEARS	17	19	4	40	
5	>20 YEARS	13	20	1	34	
GRAND TOTAL		36	47	6	89	
1.5.		1	2	3	GRAND TOTAL	
1	1 PER ANNUM	1			1	
2	2 TO 5 PER ANNUM	20	23	3	46	
3	>5 PER ANNUM	15	24	3	42	
GRAND TOTAL		36	47	6	89	

SURVEY Q	SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 6.5.4.						
	PILOTAGE	MORE OFTEN	SIMILAR	LESS OFTEN			
1.1.		1	2	3	GRAND TOTAL		
1	MALE	49	35	5	89		
GRAND TOTAL		49	35	5	89		
1.2.		1	2	3	GRAND TOTAL		
2	ASIAN	6	1		7		
4	WHITE	39	31	5	75		
5	OTHER	4	3		7		
GRAND TOTAL		49	35	5	89		
1.3.		1	2	3	GRAND TOTAL		
3	30 TO 39 YEARS			2	2		
4	40 TO 49 YEARS	13	3	1	17		
5	50 TO 59 YEARS	31	23	2	56		
6	>59 YEARS	5	9		14		
GRAND TOTAL		49	35	5	89		
1.4.		1	2	3	GRAND TOTAL		
2	1 TO 5 YEARS	2	1		3		
3	6 TO 10 YEARS	6	5	1	12		
4	11 TO 20 YEARS	22	14	4	40		
5	>20 YEARS	19	15		34		
GRAND TOTAL		49	35	5	89		
1.5.		1	2	3	GRAND TOTAL		
1	1 PER ANNUM		1		1		
2	2 TO 5 PER ANNUM	29	14	3	46		
3	>5 PER ANNUM	20	20	2	42		
GRAND TOTAL		49	35	5	89		

	WEATHER	MORE OFTEN	SIMILAR	LESS OFTEN	
1.1.		1	2	3	GRAND TOTAL
1	MALE	1	70	18	89
GRAND TOTAL		1	70	18	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN		5	2	7
4	WHITE	1	58	16	75
5	OTHER		7		7
GRAND TOTAL		1	70	18	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS			2	2
4	40 TO 49 YEARS	1	12	4	17
5	50 TO 59 YEARS		45	11	56
6	>59 YEARS		13	1	14
GRAND TOTAL		1	70	18	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS		3		3
3	6 TO 10 YEARS	1	10	1	12
4	11 TO 20 YEARS		28	12	40
5	>20 YEARS		29	5	34
GRAND TOTAL		1	70	18	89
15		1	2	3	
1.0.			1	5	
2		1	37	8	46
2			32	10	42
		1	70	10	90
TOTAL			70	10	09

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SURVET QUESTIONNAIRE COUNT. VESSEL MASTERS 6.0.1.							
	CARGO AVAILABILTY	MORE OFTEN	SIMILAR	LESS OFTEN			
1.1.		1	2	3	GRAND TOTAL		
1	MALE	33	49	7	89		
GRAND TOTAL		33	49	7	89		
1.2.		1	2	3	GRAND TOTAL		
2	ASIAN		6	1	7		
4	WHITE	32	38	5	75		
5	OTHER	1	5	1	7		
GRAND TOTAL		33	49	7	89		
1.3.		1	2	3	GRAND TOTAL		
3	30 TO 39 YEARS		1	1	2		
4	40 TO 49 YEARS	5	11	1	17		
5	50 TO 59 YEARS	24	28	4	56		
6	>59 YEARS	4	9	1	14		
GRAND TOTAL		33	49	7	89		
1.4.		1	2	3	GRAND TOTAL		
2	1 TO 5 YEARS	1	2		3		
3	6 TO 10 YEARS	3	8	1	12		
4	11 TO 20 YEARS	16	19	5	40		
5	>20 YEARS	13	20	1	34		
GRAND TOTAL		33	49	7	89		
1.5.		1	2	3	GRAND TOTAL		
1	1 PER ANNUM		1		1		
2	2 TO 5 PER ANNUM	17	25	4	46		
3	>5 PER ANNUM	16	23	3	42		
GRAND TOTAL		33	49	7	89		

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 6.6.1.

SURVEY C	UESTIONNAIRE COUNT	: VESSEL MASTER	S 6.6.2.		
	INDUSTRIAL ACTION	MORE OFTEN	SIMILAR	LESS OFTEN	
1.1.		1	2	3	GRAND TOTAL
1	MALE	5	53	31	89
GRAND TOTAL		5	53	31	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN		4	3	7
4	WHITE	5	43	27	75
5	OTHER		6	1	7
GRAND TOTAL		5	53	31	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	1		1	2
4	40 TO 49 YEARS	1	12	4	17
5	50 TO 59 YEARS	3	32	21	56
6	>59 YEARS		9	5	14
GRAND TOTAL		5	53	31	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS		1	2	3
3	6 TO 10 YEARS	1	/	4	12
4	11 TO 20 YEARS	2	23	15	40
5	>20 YEARS	2	22	10	34
GRAND TOTAL		5	53	31	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM		1		1
2	2 TO 5 PER ANNUM	2	26	18	46
3	>5 PER ANNUM	3	26	13	42
GRAND TOTAL		5	53	31	89

SURVEY C	SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 6.6.3.						
	MARINE SERVICE	MORE OFTEN	SIMILAR	LESS OFTEN			
1.1.		1	2	3	GRAND TOTAL		
1	MALE	37	45	7	89		
GRAND TOTAL		37	45	7	89		
1.2.		1	2	3	GRAND TOTAL		
2	ASIAN	4	3		7		
4	WHITE	31	37	7	75		
5	OTHER	2	5		7		
GRAND TOTAL		37	45	7	89		
1.3.		1	2	3	GRAND TOTAL		
3	30 TO 39 YEARS			2	2		
4	40 TO 49 YEARS	12	4	1	17		
5	50 TO 59 YEARS	20	32	4	56		
6	>59 YEARS	5	9		14		
GRAND TOTAL		37	45	7	89		
1.4.		1	2	3	GRAND TOTAL		
2	1 TO 5 YEARS	1	2		3		
3	6 TO 10 YEARS	5	6	1	12		
4	11 TO 20 YEARS	16	20	4	40		
5	>20 YEARS	15	17	2	34		
GRAND TOTAL		37	45	7	89		
1.5.		1	2	3	GRAND TOTAL		
1	1 PER ANNUM	1			1		
2	2 TO 5 PER ANNUM	19	23	4	46		
3	>5 PER ANNUM	17	22	3	42		
GRAND TOTAL		37	45	7	89		

SURVEY C	SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 6.6.4.						
	PILOTAGE	MORE OFTEN	SIMILAR	LESS OFTEN			
1.1.		1	2	3	GRAND TOTAL		
1	MALE	54	30	5	89		
GRAND TOTAL		54	30	5	89		
1.2.		1	2	3	GRAND TOTAL		
2	ASIAN	6	1		7		
4	WHITE	44	26	5	75		
5	OTHER	4	3		7		
GRAND TOTAL		54	30	5	89		
1.3.		1	2	3	GRAND TOTAL		
3	30 TO 39 YEARS			2	2		
4	40 TO 49 YEARS	15	1	1	17		
5	50 TO 59 YEARS	32	22	2	56		
6	>59 YEARS	7	7		14		
GRAND TOTAL		54	30	5	89		
1.4.		1	2	3	GRAND TOTAL		
2	1 TO 5 YEARS	2	1		3		
3	6 TO 10 YEARS	8	3	1	12		
4	11 TO 20 YEARS	24	13	3	40		
5	>20 YEARS	20	13	1	34		
GRAND TOTAL		54	30	5	89		
1.5.		1	2	3	GRAND TOTAL		
1	1 PER ANNUM		1		1		
2	2 TO 5 PER ANNUM	31	12	3	46		
3	>5 PER ANNUM	23	17	2	42		
GRAND TOTAL		54	30	5	89		

SURVEY Q	SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 6.6.5.						
	WEATHER	MORE OFTEN	SIMILAR	LESS OFTEN			
1.1.		1	2	3	GRAND TOTAL		
1	MALE	1	69	19	89		
GRAND		1	69	19	89		
TOTAL							
1.2.		1	2	3	GRAND TOTAL		
2	ASIAN		5	2	7		
4	WHITE	1	57	17	75		
5	OTHER		7		7		
GRAND		1	69	19	89		
TOTAL							
1.0							
1.3.		1	2	3	GRAND TOTAL		
3	30 TO 39 YEARS		- · · ·	2	2		
4	40 TO 49 YEARS	1	11	5	17		
5	50 TO 59 YEARS		45	11	56		
6	>59 YEARS		13	1	14		
GRAND TOTAL		1	69	19	89		
1.4.		1	2	3	GRAND TOTAL		
2	1 TO 5 YEARS		3		3		
3	6 TO 10 YEARS	1	10	1	12		
4	11 TO 20 YEARS		27	13	40		
5	>20 YEARS		29	5	34		
GRAND TOTAL		1	69	19	89		
1.5.		1	2	3	GRAND TOTAL		
1	1 PER ANNUM		1		1		
2	2 TO 5 PER ANNUM	1	34	11	46		
3	>5 PER ANNUM		34	8	42		
GRAND TOTAL		1	69	19	89		

SUBVEY QUESTIONNAIBE COUNT: VESSEL MASTERS 6.6.5

SEAFARERS BELIEVE THAT THE PORT OF DURBAN EMPLOYS GOOD BUSINESS ETHICS.

			AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE	
1.1.		1	2	3	4	5	GRAND
1	MALE	1	36	23	26	3	89
GRAND TOTAL		1	36	23	26	3	89
1.2.		1	2	3	4	5	GRAND TOTAL
2	ASIAN		5		2		7
4	WHITE	1	28	22	21	3	75
5	OTHER		3	1	3		7
GRAND TOTAL		1	36	23	26	3	89
1.3.		1	2	3	4	5	GRAND TOTAL
3	30 TO 39 YEARS		1			1	2
4	40 TO 49 YEARS		5	2	10		17
5	50 TO 59 YEARS	1	20	19	14	2	56
6	>59 YEARS		10	2	2		14
GRAND TOTAL		1	36	23	26	3	89
					· .	_	0.5.4115
1.4.		1	2	3	4	5	GRAND
2	1 TO 5 YEARS		3				3
3	6 TO 10 YEARS		5	2	4	1	12
4	11 TO 20 YEARS	1	14	12	12	1	40
5	>20 YEARS		14	9	10	1	34
GRAND TOTAL		1	36	23	26	3	89
1.5.		1	2	3	4	5	GRAND TOTAL
1			47	1	47		1
2	2 10 5 PER ANNUM	1	1/	11	1/		46
3	>5 PER ANNUM		19	11	9	3	42
GRAND TOTAL		1	36	23	26	3	89

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 7.1.

DURBAN'S PORT ADMINISTRATORS MANAGE PORT OPERATIONS MORE TRANSPARENTLY THAN NEARBY PORTS ALONG THE EAST COAST OF SOUTHERN AFRICA.

SURVEY Q	UESTIONNAIRE COUNT	VESSEL MASTEF	RS 7.2.		
		ALWAYS	SOMETIMES	NEVER	
1.1.		1	2	3	GRAND TOTAL
1	MALE	16	51	22	89
GRAND TOTAL		16	51	22	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	4	1	2	/
4	WHITE	11	47	17	75
5	OTHER	1	3	3	7
GRAND TOTAL		16	51	22	89
1.0					
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS		1	1	2
4	40 TO 49 YEARS	3	8	6	17
5	50 TO 59 YEARS	12	31	13	56
6	>59 YEARS	1	11	2	14
GRAND TOTAL		16	51	22	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	1	2		3
3	6 TO 10 YEARS	2	7	3	12
4	11 TO 20 YEARS	7	21	12	40
5	>20 YEARS	6	21	7	34
GRAND TOTAL		16	51	22	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM		1		1
2	2 TO 5 PER ANNUM	10	22	14	46
3	>5 PER ANNUM	6	28	8	42
GRAND TOTAL		16	51	22	89

SURVEYQ	UESTIONNAIRE COUNT	: VESSEL MAST	ERS 8.1.1.		
	BERTHING	BETTER	SIMILAR	NOT AS GOOD	
1.1.		1	2	3	GRAND TOTAL
1	MALE	31	54	4	89
GRAND TOTAL		31	54	4	89
8.1.1.					
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	1	6		7
4	WHITE	29	42	4	75
5	OTHER	1	6		7
GRAND TOTAL		31	54	4	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	2			2
4	40 TO 49 YEARS	3	13	1	17
5	50 TO 59 YEARS	21	33	2	56
6	>59 YEARS	5	8	1	14
GRAND TOTAL		31	54	4	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	1	2		3
3	6 TO 10 YEARS	6	6		12
4	11 TO 20 YEARS	13	25	2	40
5	>20 YEARS	11	21	2	34
GRAND TOTAL		31	54	4	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM	1			1
2	2 TO 5 PER ANNUM	16	28	2	46
3	>5 PER ANNUM	14	26	2	42
GRAND TOTAL		31	54	4	89

	CARGO HANDLING	BETTER	SIMILAR	NOT AS GOOD	
		1	0		
1.1.		1	2	3	GRAND TOTAL
1	MALE	19	40	30	89
GRAND TOTAL		19	40	30	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	1	4	2	7
4	WHITE	17	32	26	75
5	OTHER	1	4	2	7
GRAND TOTAL		19	40	30	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	2			2
4	40 TO 49 YEARS	3	9	5	17
5	50 TO 59 YEARS	11	23	22	56
6	>59 YEARS	3	8	3	14
GRAND TOTAL		19	40	30	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	1	1	1	3
3	6 TO 10 YEARS	4	4	4	12
4	11 TO 20 YEARS	9	20	11	40
5	>20 YEARS	5	15	14	34
GRAND TOTAL		19	40	30	89
1.5.		1	2	3	GRAND IOTAL
1	1 PER ANNUM	1			1
2	2 TO 5 PER ANNUM	7	24	15	46
3	>5 PER ANNUM	11	16	15	42
GRAND TOTAL		19	40	30	89

	DRY-DOCK AND SHIP REPAIR	BETTER	SIMILAR	NOT AS GOOD	
1.1.		1	2	3	GRAND TOTAL
1	MALE	23	52	14	89
GRAND TOTAL		23	52	14	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	1	6		7
4	WHITE	21	41	13	75
5	OTHER	1	5	1	7
GRAND TOTAL		23	52	14	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	1		1	2
4	40 TO 49 YEARS	2	12	3	17
5	50 TO 59 YEARS	18	30	8	56
6	>59 YEARS	2	10	2	14
GRAND TOTAL		23	52	14	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	1	2		3
3	6 TO 10 YEARS	4	6	2	12
4	11 TO 20 YEARS	9	24	7	40
5	>20 YEARS	9	20	5	34
GRAND TOTAL		23	52	14	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM	1			1
2	2 TO 5 PER ANNUM	10	29	7	46
3	>5 PER ANNUM	12	23	7	42
GRAND TOTAL		23	52	14	89

	RECREATION	BETTER	SIMILAR	NOT AS GOOD	
1 1		1		2	
1.1.		1	2	3	GRAND TOTAL
1	MALE	37	40	12	89
GRAND TOTAL		37	40	12	89
12		1	2	3	GBAND TOTAL
2		1	5	1	7
2		1	5	1	7
4		32	32		75
5	OTHER	4	3		1
GRAND TOTAL		37	40	12	89
				-	
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS		1	1	2
4	40 TO 49 YEARS	4	8	5	17
5	50 TO 59 YEARS	25	25	6	56
6	>59 YEARS	8	6		14
GRAND TOTAL		37	40	12	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	1	2		3
3	6 TO 10 YEARS	5	5	2	12
4	11 TO 20 YEARS	14	17	9	40
5	>20 YEARS	17	16	1	34
GRAND TOTAL		37	40	12	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM	1			1
2	2 TO 5 PER ANNUM	13	25	8	46
3	>5 PER ANNUM	23	15	4	42
GRAND		37	40	12	89

SURVET		. VESSEL MAST	ER3 0.2.1.		T
	BERTHING	BETTER	SIMILAR	NOT AS GOOD	
1.1.		1	2	3	GRAND TOTAL
1	MALE	32	48	9	89
GRAND TOTAL		32	48	9	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	2	5		7
4	WHITE	29	38	8	75
5	OTHER	1	5	1	7
GRAND TOTAL		32	48	9	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	2			2
4	40 TO 49 YEARS	4	11	2	17
5	50 TO 59 YEARS	21	30	5	56
6	>59 YEARS	5	7	2	14
GRAND TOTAL		32	48	9	89
				-	
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	1	2		3
3	6 TO 10 YEARS	6	4	2	12
4	11 TO 20 YEARS	14	23	3	40
5	>20 YEARS	11	19	4	34
GRAND TOTAL		32	48	9	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM	1			1
2	2 TO 5 PER ANNUM	17	25	4	46
3	>5 PER ANNUM	14	23	5	42
GRAND TOTAL		32	48	9	89

SUBVEY OUESTIONNAIRE COUNT: VESSEL MASTERS 8.2.1

SURVEY C	SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 8.2.2.								
	CARGO HANDLING	BETTER	SIMILAR	NOT AS GOOD					
1.1.		1	2	3	GRAND TOTAL				
1	MALE	20	40	29	89				
GRAND TOTAL		20	40	29	89				
1.2.		1	2	3	GRAND TOTAL				
2	ASIAN	1	5	1	7				
4	WHITE	18	31	26	75				
5	OTHER	1	4	2	7				
GRAND TOTAL		20	40	29	89				
1.3.		1	2	3	GRAND TOTAL				
3	30 TO 39 YEARS	2			2				
4	40 TO 49 YEARS	3	9	5	17				
5	50 TO 59 YEARS	12	23	21	56				
6	>59 YEARS	3	8	3	14				
GRAND TOTAL		20	40	29	89				
1.4.		1	2	3	GRAND TOTAL				
2	1 TO 5 YEARS	1	1	1	3				
3	6 TO 10 YEARS	4	5	3	12				
4	11 TO 20 YEARS	9	20	11	40				
5	>20 YEARS	6	14	14	34				
GRAND TOTAL		20	40	29	89				
1.5.		1	2	3	GRAND TOTAL				
1	1 PER ANNUM	1			1				
2	2 TO 5 PER ANNUM	8	23	15	46				
3	>5 PER ANNUM	11	17	14	42				
GRAND TOTAL		20	40	29	89				

SURVEY Q	SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 8.2.3.							
	DRY-DOCK AND SHIP REPAIR	BETTER	SIMILAR	NOT AS GOOD				
1.1.		1	2	3	GRAND TOTAL			
1	MALE	23	50	16	89			
GRAND TOTAL		23	50	16	89			
1.2.		1	2	3	GRAND TOTAL			
2	ASIAN	2	4	1	7			
4	WHITE	20	41	14	75			
5	OTHER	1	5	1	7			
GRAND TOTAL		23	50	16	89			
1.0		1						
1.3.		1	2	3	GRAND TOTAL			
3	30 TO 39 YEARS	1	1		2			
4	40 TO 49 YEARS	3	9	5	1/			
5	50 TO 59 YEARS	16	32	8	56			
6	>59 YEARS	3	8	3	14			
GRAND TOTAL		23	50	16	89			
1.4.		1	2	3	GRAND TOTAL			
2	1 TO 5 YEARS	1	2		3			
3	6 TO 10 YEARS	4	7	1	12			
4	11 TO 20 YEARS	9	22	9	40			
5	>20 YEARS	9	19	6	34			
GRAND TOTAL		23	50	16	89			
1.5.		1	2	3	GRAND TOTAL			
1			1	-	1			
2	2 TO 5 PER ANNUM	10	27	9	46			
3	>5 PER ANNUM	13	22	7	42			
GRAND TOTAL		23	50	16	89			

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	RECREATION	BETTER	SIMILAR	NOT AS GOOD	
1.1.		1	2	3	GRAND TOTAL
1	MALE	39	33	17	89
GRAND TOTAL		39	33	17	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	4	2	1	7
4	WHITE	31	29	15	75
5	OTHER	4	2	1	7
GRAND TOTAL		39	33	17	89
1.2		1	2	2	
3	30 TO 30 VEARS	1	1	1	
3		6	5	6	17
5	50 TO 59 VEARS	26	21	0	56
5		7	6	3	14
	>39 TEANS	7	0	1	90
TOTAL					
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	2	1		3
3	6 TO 10 YEARS	4	5	3	12
4	11 TO 20 YEARS	16	14	10	40
5	>20 YEARS	17	13	4	34
GRAND TOTAL		39	33	17	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM	1			1
2	2 TO 5 PER ANNUM	15	19	12	46
3	>5 PER ANNUM	23	14	5	42
GRAND TOTAL		39	33	17	89

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 8.2.4.

SURVEY Q	JESTIONNAIRE COUNT: V	ESSEL MASTERS 9.1.	1.	
	BERTHING	ALWAYS	SOMETIMES	
		SATISFACTORY	SATISFACTORY	
1.1.		1	2	GRAND TOTAL
1	MALE	36	53	89
GRAND		36	53	89
TOTAL				
1.2.		1	2	GRAND TOTAL
2	ASIAN	3	4	7
4	WHITE	30	45	75
5	OTHER	3	4	7
GRAND TOTAL		36	53	89
1.3		1	2	GBAND TOTAL
3	30 TO 39 YEARS	1	1	2
4	40 TO 49 YEARS	5	12	17
5	50 TO 59 YEARS	23	33	56
6	>59 YEARS	7	7	14
GRAND TOTAL		36	53	89
1.4.		1	2	GRAND TOTAL
2	1 TO 5 YEARS	1	2	3
3	6 TO 10 YEARS	6	6	12
4	11 TO 20 YEARS	17	23	40
5	>20 YEARS	12	22	34
GRAND TOTAL		36	53	89
1.5.		1	2	GRAND TOTAL
1	1 PER ANNUM	1		1
2	2 TO 5 PER ANNUM	18	28	46
3	>5 PER ANNUM	17	25	42
GRAND TOTAL		36	53	89

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	CARGO HANDLING	ALWAYS	SOMETIMES	NEVER		
	FACILITIES	SATISFACTORY	SATISFACTORY	SATISFACTORY		
1.1.		1	2	3	GRAND TOTAL	
1	MALE	19	66	4	89	
GRAND TOTAL		19	66	4	89	
1.2.		1	2	3	GRAND TOTAL	
2	ASIAN	1	6		7	
4	WHITE	17	54		75	
5	OTHER	1	6		7	
GRAND TOTAL		19	66	4	89	
1.3.		1	2	3	GRAND TOTAL	
3	30 TO 39 YEARS		2		2	
4	40 TO 49 YEARS	3	14		17	
5	50 TO 59 YEARS	13	39	4	56	
6	>59 YEARS	3	11		14	
GRAND TOTAL		19	66	4	89	
1.4.		1	2	3	GRAND TOTAL	
2	1 TO 5 YEARS	1	1	1	3	
3	6 TO 10 YEARS	3	9		12	
4	11 TO 20 YEARS	10	29	1	40	
5	>20 YEARS	5	27	2	34	
GRAND TOTAL		19	66	4	89	
1.5.		1	2	3	GRAND TOTAL	
1	1 PER ANNUM	1			1	
2	2 TO 5 PER ANNUM	9	34	3	46	
3	>5 PER ANNUM	9	32	1	42	
GRAND TOTAI		19	66	4	89	

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 9.1.2.

SURVEY Q	SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 9.1.3.							
	PROTECTED	ALWAYS	SOMETIMES	NEVER				
	STORAGE AND WAREHOUSES	SATISFACTORY	SATISFACTORY	SATISFACTORY				
1.1.		1	2	3	GRAND TOTAL			
1	MALE	42	46	1	89			
GRAND		42	46	1	89			
TOTAL								
1.2.		1	2	3	GRAND TOTAL			
2	ASIAN	4	3		7			
4	WHITE	34	41		75			
5	OTHER	4	2	1	7			
GRAND TOTAL		42	46	1	89			
1.3.		1	2	3	GRAND TOTAL			
3	30 TO 39 YEARS		2		2			
4	40 TO 49 YEARS	3	14		17			
5	50 TO 59 YEARS	31	25		56			
6	>59 YEARS	8	5	1	14			
GRAND TOTAL		42	46	1	89			
1.4.		1	2	3	GRAND TOTAL			
2	1 TO 5 YEARS	1	2		3			
3	6 TO 10 YEARS	5	7		12			
4	11 TO 20 YEARS	19	21		40			
5	>20 YEARS	17	16	1	34			
GRAND TOTAL		42	46	1	89			
1.5.		1	2	3	GRAND TOTAL			
1	1 PER ANNUM	1			1			
2	2 TO 5 PER ANNUM	20	25	1	46			
3	>5 PER ANNUM	21	21		42			
GRAND TOTAL		42	46	1	89			

SURVEY C	UESTIONNAIRE COUNT:	: VESSEL MASTERS	S 9.1.4.		
	SAFE NAVIGABLE	ALWAYS	SOMETIMES	NEVER	
	CHANNELS	SATISFACTORY	SATISFACTORY	SATISFACTORY	
1.1.		1	2	3	GRAND TOTAL
1	MALE	58	30	1	89
GRAND TOTAL		58	30	1	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	5	2		7
4	WHITE	48	27		75
5	OTHER	5	1	1	7
GRAND TOTAL		58	30	1	89
1.3.		1	2	3	GRAND TOTAL
3	30 TO 39 YEARS	1	1		2
4	40 TO 49 YEARS	9	8		17
5	50 TO 59 YEARS	38	18		56
6	>59 YEARS	10	3	1	14
GRAND TOTAL		58	30	1	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	1	2		3
3	6 TO 10 YEARS	8	4		12
4	11 TO 20 YEARS	26	14		40
5	>20 YEARS	23	10	1	34
GRAND TOTAL		58	30	1	89
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM	1			1
2	2 TO 5 PER ANNUM	28	17	1	46
3	>5 PER ANNUM	29	13		42
GRAND TOTAL		58	30	1	89

	ACCESS FOR ROAD	ALWAYS	SOMETIMES	NEVER	
	AND RAIL	SATISFACTORY	SATISFACTORY	SATISFACTORY	
1.1.		1	2	3	GRAND TOTAL
1	MALE	30	56	3	89
GRAND TOTAL		30	56	3	89
1.2.		1	2	3	GRAND TOTAL
2	ASIAN	2	5		7
4	WHITE	24	49	2	75
5	OTHER	4	2	1	7
GRAND TOTAL		30	56	3	89
1.2		1	2	2	
1.3.			2	3	
3	30 TO 39 YEARS	1	2		2
4	40 TO 49 YEARS	1	16		17
5	50 TO 59 YEARS	23	31	2	56
6	>59 YEARS	6	7	1	14
GRAND TOTAL		30	56	3	89
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	1	2		3
3	6 TO 10 YEARS	3	9		12
4	11 TO 20 YEARS	15	25		40
5	>20 YEARS	11	20	3	34
GRAND TOTAL		30	56	3	89
			-	-	
1.5.		1	2	3	GRAND TOTAL
1	1 PER ANNUM	1			1
2	2 TO 5 PER ANNUM	16	29	1	46
3	>5 PER ANNUM	13	27	2	42
GRAND TOTAL		30	56	3	89

SEAFARERS ARE ENCOURAGED TO SUGGEST IMPROVEMENTS TO DURBAN'S PHYSICAL CHARACTERISTICS IN TERMS OF IMPROVING PORT OPERATIONS.

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 9.2.							
		ALWAYS	SOMETIMES	NEVER			
1.1.		1	2	3	GRAND TOTAL		
1	MALE	4	24	61	89		
GRAND TOTAL		4	24	61	89		
1.2.		1	2	3	GRAND TOTAL		
2	ASIAN	1	3	3	7		
4	WHITE	3	20	52	75		
5	OTHER		1	6	7		
GRAND TOTAL		4	24	61	89		
1.3.		1	2	3	GRAND TOTAL		
3	30 TO 39 YEARS		2		2		
4	40 TO 49 YEARS	2	6	9	17		
5	50 TO 59 YEARS	2	12	42	56		
6	>59 YEARS		4	10	14		
GRAND TOTAL		4	24	61	89		
1.4.		1	2	3	GRAND TOTAL		
2	1 TO 5 YEARS		2	1	3		
3	6 TO 10 YEARS		4	8	12		
4	11 TO 20 YEARS	3	12	25	40		
5	>20 YEARS	1	6	27	34		
GRAND TOTAL		4	24	61	89		
1.5.		1	2	3	GRAND TOTAL		
1	1 PER ANNUM		1		1		
2	2 TO 5 PER ANNUM	3	10	33	46		
3	>5 PER ANNUM	1	13	28	42		
GRAND TOTAL		4	24	61	89		

RATE THE PORT OF DURBAN'S COMPETITIVE ATTRIBUTES, FROM "MOST IMPORTANT (1)" TO "LEAST IMPORTANT (8)", IN THE FOLLOWING CATEGORIES:

SURVEY QL	JESTIONNAIRE COUNT: VE	SSEL N	<i>I</i> ASTER	S 10.1.1	۱.					
1.1.	COSTS	1	2	3	4	5	6	7	8	GRAND TOTAL
1	MALE	40	24	14	4	2	3	1	1	89
GRAND TOTAL		40	24	14	4	2	3	1	1	89
1.2.		1	2	3	4	5	6	7	8	GRAND TOTAL
2	ASIAN	4	1	1		1				7
4	WHITE	31	22	13	3	1	3	1	1	75
5	OTHER	5	1		1					7
GRAND TOTAL		40	24	14	4	2	3	1	1	89
						_		_		
1.3.		1	2	3	4	5	6	7	8	GRAND TOTAL
3	30 TO 39 YEARS	1					1			2
4	40 TO 49 YEARS	9	5	2			1			17
5	50 TO 59 YEARS	23	16	10	3	2		1	1	56
6	>59 YEARS	7	3	2	1		1			14
GRAND TOTAL		40	24	14	4	2	3	1	1	89
						_		_		
1.4.		1	2	3	4	5	6	7	8	GRAND TOTAL
2	1 TO 5 YEARS	1	1	1						3
3	6 TO 10 YEARS	4	5	1			2			12
4	11 TO 20 YEARS	19	11	6	1	1		1	1	40
5	>20 YEARS	16	7	6	3	1	1			34
GRAND TOTAL		40	24	14	4	2	3	1	1	89
1.5.		1	2	3	4	5	6	7	8	GRAND TOTAL
1	1 PER ANNUM								1	1
2	2 TO 5 PER ANNUM	19	16	7	2	1		1		46
3	>5 PER ANNUM	21	8	7	2	1	3			42
GRAND TOTAL		40	24	14	4	2	3	1	1	89

RATE THE PORT OF DURBAN'S COMPETITIVE ATTRIBUTES, FROM "MOST IMPORTANT (1)" TO "LEAST IMPORTANT (8)", IN THE FOLLOWING CATEGORIES:

1.1.	INFRASTRUCTURE	1	2	3	4	5	6	7	8	GRAND TOTAL
1	MALE	1	15	11	21	14	11	5	11	89
GRAND TOTAL		1	15	11	21	14	11	5	11	89
1.2.		1	2	3	4	5	6	7	8	GRAND TOTAL
2	ASIAN			1	4		1	1		7
4	WHITE	1	15	7	16	12	9	4	11	75
5	OTHER			3	1	2	1			7
GRAND TOTAL		1	15	11	21	14	11	5	11	89
1.3.		1	2	3	4	5	6	7	8	GRAND TOTAL
3	30 TO 39 YEARS		1	1						2
4	40 TO 49 YEARS		1	1	4	3	4	1	3	17
5	50 TO 59 YEARS	1	9	7	16	9	4	3	7	56
6	>59 YEARS		4	2	1	2	3	1	1	14
GRAND TOTAL		1	15	11	21	14	11	5	11	89
1.4.		1	2	3	4	5	6	7	8	GRAND TOTAL
2	1 TO 5 YEARS		1		1				1	3
3	6 TO 10 YEARS		3		4	2			3	12
4	11 TO 20 YEARS		6	7	10	5	4	3	5	40
5	>20 YEARS	1	5	4	6	7	7	2	2	34
GRAND TOTAL		1	15	11	21	14	11	5	11	89
1.5.		1	2	3	4	5	6	7	8	GRAND TOTAL
1	1 PER ANNUM				1					1
2	2 TO 5 PER ANNUM		7	7	11	8	3	4	6	46
3	>5 PER ANNUM	1	8	4	9	6	8	1	5	42
GRAND TOTAL		1	15	11	21	14	11	5	11	89

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 10.1.2.

RATE THE PORT OF DURBAN'S COMPETITIVE ATTRIBUTES, FROM "MOST IMPORTANT (1)" TO "LEAST IMPORTANT (8)", IN THE FOLLOWING CATEGORIES:

••••					-					
1.1.	INNOVATION	1	2	3	4	5	6	7	8	GRAND TOTAL
1	MALE	15	35	20	6	7	4	1	1	89
GRAND TOTAL		15	35	20	6	7	4	1	1	89
1.2.		1	2	3	4	5	6	7	8	GRAND TOTAL
2	ASIAN		4	2			1			7
4	WHITE	14	26	18	6	6	3	1	1	75
5	OTHER	1	5			1				7
GRAND TOTAL		15	35	20	6	7	4	1	1	89
1.3.		1	2	3	4	5	6	7	8	GRAND TOTAL
3	30 TO 39 YEARS						1	1		2
4	40 TO 49 YEARS	2	10	3		2				17
5	50 TO 59 YEARS	11	18	15	6	3	3			56
6	>59 YEARS	2	7	2		2			1	14
GRAND TOTAL		15	35	20	6	7	4	1	1	89
1.4.		1	2	3	4	5	6	7	8	GRAND TOTAL
2	1 TO 5 YEARS			2	1					3
3	6 TO 10 YEARS	1	3	4		3		1		12
4	11 TO 20 YEARS	6	16	9	3	3	3			40
5	>20 YEARS	8	16	5	2	1	1		1	34
GRAND TOTAL		15	35	20	6	7	4	1	1	89
1.5.		1	2	3	4	5	6	7	8	GRAND TOTAL
1	1 PER ANNUM		1							1
2	2 TO 5 PER ANNUM	8	18	13	3	2	2			46
3	>5 PER ANNUM	7	16	7	3	5	2	1	1	42
GRAND TOTAL		15	35	20	6	7	4	1	1	89

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 10.1.3.
RATE THE PORT OF DURBAN'S COMPETITIVE ATTRIBUTES, FROM "MOST IMPORTANT (1)" TO "LEAST IMPORTANT (8)", IN THE FOLLOWING CATEGORIES:

SURVEY Q	JESTIONNAIRE COUNT: \	ESSEL M	ASTERS	10.1.4.					
1.1.	PHYSICAL CHARACTERISTICS	1	3	4	5	6	7	8	GRAND TOTAL
1	MALE	5	7	10	18	18	21	10	89
GRAND TOTAL		5	7	10	18	18	21	10	89
1.2.		1	3	4	5	6	7	8	GRAND TOTAL
2	ASIAN	1	1		1	1	3		7
4	WHITE	4	6	10	16	15	16	8	75
5	OTHER				1	2	2	2	7
GRAND TOTAL		5	7	10	18	18	21	10	89
1.3.		1	3	4	5	6	7	8	GRAND TOTAL
3	30 TO 39 YEARS		1		1				2
4	40 TO 49 YEARS	3	1	1	2	4	5	1	17
5	50 TO 59 YEARS	1	3	9	14	10	13	6	56
6	>59 YEARS	1	2		1	4	3	3	14
GRAND TOTAL		5	7	10	18	18	21	10	89
1.4.		1	3	4	5	6	7	8	GRAND TOTAL
2	1 TO 5 YEARS				1	1	1		3
3	6 TO 10 YEARS	2	2	1	2	2	1	2	12
4	11 TO 20 YEARS	2	1	6	9	9	11	2	40
5	>20 YEARS	1	4	3	6	6	8	6	34
GRAND TOTAL		5	7	10	18	18	21	10	89
1.5.		1	3	4	5	6	7	8	GRAND TOTAL
1	1 PER ANNUM				1				1
2	2 TO 5 PER ANNUM	2	2	6	9	10	14	3	46
3	>5 PER ANNUM	3	5	4	8	8	7	7	42
GRAND TOTAL		5	7	10	18	18	21	10	89

SURVEY QUESTIONNAIRE COUNT: VESSEL MASTERS 10.1.4

RATE THE PORT OF DURBAN'S COMPETITIVE ATTRIBUTES, FROM "MOST IMPORTANT (1)" TO "LEAST IMPORTANT (8)", IN THE FOLLOWING CATEGORIES:

SURVEY Q	JESTIONNAIRE COUNT: V	ESSEL M	ASTERS	10.1.5.					
1.1.	QUALITY	2	3	4	5	6	7	8	GRAND TOTAL
1	MALE	1	3	13	16	19	19	18	89
GRAND TOTAL		1	3	13	16	19	19	18	89
1.2.		2	3	4	5	6	7	8	GRAND TOTAL
2	ASIAN			2		1	2	2	7
4	WHITE	1	3	10	16	18	13	14	75
5	OTHER			1			4	2	7
GRAND TOTAL		1	3	13	16	19	19	18	89
1.3.		2	3	4	5	6	7	8	GRAND TOTAL
3	30 TO 39 YEARS			1	1				2
4	40 TO 49 YEARS		1	6	3	2	2	3	17
5	50 TO 59 YEARS	1	2	4	11	15	11	12	56
6	>59 YEARS			2	1	2	6	3	14
GRAND TOTAL		1	3	13	16	19	19	18	89
1.4.		2	3	4	5	6	7	8	GRAND TOTAL
2	1 TO 5 YEARS						1	2	3
3	6 TO 10 YEARS		1	3	2	3	1	2	12
4	11 TO 20 YEARS	1		8	8	9	8	6	40
5	>20 YEARS		2	2	6	7	9	8	34
GRAND TOTAL		1	3	13	16	19	19	18	89
1.5.		2	3	4	5	6	7	8	GRAND TOTAL
1	1 PER ANNUM						1		1
2	2 TO 5 PER ANNUM	1	1	11	8	11	5	9	46
3	>5 PER ANNUM		2	2	8	8	13	9	42
GRAND TOTAL		1	3	13	16	19	19	18	89

RATE THE PORT OF DURBAN'S COMPETITIVE ATTRIBUTES, FROM "MOST IMPORTANT (1)" TO "LEAST IMPORTANT (8)", IN THE FOLLOWING CATEGORIES:

SURVEY QU	JESTIONNAIRE COUNT:	VESSEL I	MASTERS	10.1.6.					
1.1.	REPUTATION	2	3	4	5	6	7	8	GRAND TOTAL
1	MALE	2	11	13	10	18	24	11	89
GRAND TOTAL		2	11	13	10	18	24	11	89
1.2.		2	3	4	5	6	7	8	GRAND TOTAL
2	ASIAN	1	1		2	3			7
4	WHITE	1	9	11	8	14	23	9	75
5	OTHER		1	2		1	1	2	7
GRAND TOTAL		2	11	13	10	18	24	11	89
1.3.		2	3	4	5	6	7	8	GRAND TOTAL
3	30 TO 39 YEARS						1	1	2
4	40 TO 49 YEARS	1	2	3	3	4	3	1	17
5	50 TO 59 YEARS	1	8	8	4	12	17	6	56
6	>59 YEARS		1	2	3	2	3	3	14
GRAND TOTAL		2	11	13	10	18	24	11	89
1.4.		2	3	4	5	6	7	8	GRAND TOTAL
2	1 TO 5 YEARS				1	1	1		3
3	6 TO 10 YEARS	1		1		4	5	1	12
4	11 TO 20 YEARS		7	6	6	7	10	4	40
5	>20 YEARS	1	4	6	3	6	8	6	34
GRAND TOTAL		2	11	13	10	18	24	11	89
1.5.		2	3	4	5	6	7	8	GRAND TOTAL
1	1 PER ANNUM		1						1
2	2 TO 5 PER ANNUM		5	4	7	10	15	5	46
3	>5 PER ANNUM	2	5	9	3	8	9	6	42
GRAND TOTAL		2	11	13	10	18	24	11	89

RATE THE PORT OF DURBAN'S COMPETITIVE ATTRIBUTES, FROM "MOST IMPORTANT (1)" TO "LEAST IMPORTANT (8)", IN THE FOLLOWING CATEGORIES:

SURVEY QU	JESTIONNAIRE COUNT	: VESSE	L MAST	ERS 10.	1.7.					
1.1.	TRAINING	1	2	3	4	5	6	7	8	GRAND TOTAL
1	MALE	1	1	1	8	16	14	16	32	89
GRAND TOTAL		1	1	1	8	16	14	16	32	89
1.2.		1	2	3	4	5	6	7	8	GRAND TOTAL
2	ASIAN					1		1	5	7
4	WHITE	1	1	1	8	12	11	15	26	75
5	OTHER					3	3		1	7
GRAND TOTAL		1	1	1	8	16	14	16	32	89
1.3.		1	2	3	4	5	6	7	8	GRAND TOTAL
3	30 TO 39 YEARS	1							1	2
4	40 TO 49 YEARS				1	2	2	6	6	17
5	50 TO 59 YEARS		1	1	4	9	10	9	22	56
6	>59 YEARS				3	5	2	1	3	14
GRAND TOTAL		1	1	1	8	16	14	16	32	89
1.4.		1	2	3	4	5	6	7	8	GRAND TOTAL
2	1 TO 5 YEARS				1	1	1			3
3	6 TO 10 YEARS	1			2	2	1	4	2	12
4	11 TO 20 YEARS			1	2	5	6	5	21	40
5	>20 YEARS		1		3	8	6	7	9	34
GRAND TOTAL		1	1	1	8	16	14	16	32	89
1.5.		1	2	3	4	5	6	7	8	GRAND TOTAL
1	1 PER ANNUM						1			1
2	2 TO 5 PER ANNUM			1	3	6	9	5	22	46
3	>5 PER ANNUM	1	1		5	10	4	11	10	42
GRAND TOTAL		1	1	1	8	16	14	16	32	89

RATE THE PORT OF DURBAN'S COMPETITIVE ATTRIBUTES, FROM "MOST IMPORTANT (1)" TO "LEAST IMPORTANT (8)", IN THE FOLLOWING CATEGORIES:

SURVEY QU	JESTIONNAIRE COUNT	: VESSI	EL MAS	TERS 1	0.1.8.					
1.1.	TURAROUND TIME	1	2	3	4	5	6	7	8	GRAND TOTAL
1	MALE	27	11	22	14	6	2	2	5	89
GRAND TOTAL		27	11	22	14	6	2	2	5	89
1.2.		1	2	3	4	5	6	7	8	GRAND TOTAL
2	ASIAN	2	1	1	1	1		1		7
4	WHITE	24	9	18	11	5	2	1	5	75
5	OTHER	1	1	3	2					7
GRAND TOTAL		27	11	22	14	6	2	2	5	89
1.3.		1	2	3	4	5	6	7	8	GRAND TOTAL
3	30 TO 39 YEARS		1		1					2
4	40 TO 49 YEARS	3	1	6	2	1		1	3	17
5	50 TO 59 YEARS	20	9	11	6	5	2	1	2	56
6	>59 YEARS	4		5	5					14
GRAND TOTAL		27	11	22	14	6	2	2	5	89
1.4.		1	2	3	4	5	6	7	8	GRAND TOTAL
2	1 TO 5 YEARS	2	1							3
3	6 TO 10 YEARS	4	1	3	1	1			2	12
4	11 TO 20 YEARS	13	5	10	4	3	2	2	1	40
5	>20 YEARS	8	4	9	9	2			2	34
GRAND TOTAL		27	11	22	14	6	2	2	5	89
1.5.		1	2	3	4	5	6	7	8	GRAND TOTAL
1	1 PER ANNUM	1								1
2	2 TO 5 PER ANNUM	17	3	11	6	5	1	2	1	46
3	>5 PER ANNUM	9	8	11	8	1	1		4	42
GRAND		27	11	22	14	6	2	2	5	89

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Count of survey questionnaire: Port Administrators 2.

SINCE 2002, THE CHANGE TO ADMINISTRATION AT THE PORT OF DURBAN HAS BEEN:

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 2.1.							
		FAVOURABLE	NO CHANGE	UNFAVOURABLE			
1.1.		1	2	3	GRAND TOTAL		
1	MALE	20	47	33	100		
2	FEMALE	14	8	2	24		
GRAND TOTAL		34	55	35	124		
1.2.		1	2	3	GRAND		
1		14	0	1	TOTAL		
1		14	8		23		
2		4	1	4	15		
3	COLOURED	4	1	1	6		
4	WHITE	12	38	29	79		
5	OTHER		1		1		
GRAND TOTAL		34	55	35	124		
1.3.		1	2	3	GRAND TOTAL		
2	20 TO 29 YEARS	5	4	2	11		
3	30 TO 39 YEARS	17	17	9	43		
4	40 TO 49 YEARS	8	20	7	35		
5	50 TO 59 YEARS	4	13	15	32		
6	>59 YEARS		1	2	3		
GRAND TOTAL		34	55	35	124		
1.4.		1	2	3	GRAND TOTAL		
2	1 TO 5 YEARS	13	4	1	18		
3	6 TO 10 YEARS	8	18	9	35		
4	11 TO 20 YEARS	5	22	9	36		
5	>20 YEARS	8	11	16	35		
GRAND TOTAL		34	55	35	124		
1.5.		1	2	3	GRAND TOTAL		
1	UPPER MANAGEMENT	9	3	1	13		
2	MIDDLE MANAGEMENT	22	44	25	91		
3	LOWER MANAGEMENT		3	5	8		
4	JUNIOR OFFICERS	3	5	4	12		
GRAND TOTAI		34	55	35	124		

COMPARED TO THE YEARS BEFORE 2002, RATE THE FOLLOWING FACTORS RELATING TO THE PROCUREMENT PROCESS AT THE PORT OF DURBAN:

SURVEY Q	UESTIONNAIRE COUNT: PO	RT ADMINISTRA	TORS 2.2.1.		
	QUALITY OF SUPPLIES	BETTER	SIMILAR	WORSE	
1.1.		1	2	3	GRAND TOTAL
1	MALE	11	33	56	100
2	FEMALE	7	14	3	24
GRAND TOTAL		18	47	59	124
1.2.		1	2	3	GRAND TOTAL
1	BLACK	8	15		23
2	ASIAN	2	3	10	15
3	COLOURED	1		5	6
4	WHITE	7	29	43	79
5	OTHER			1	1
GRAND TOTAL		18	47	59	124
1.3.		1	2	3	GRAND TOTAL
2	20 TO 29 YEARS	4	6	1	11
3	30 TO 39 YEARS	6	17	20	43
4	40 TO 49 YEARS	7	11	17	35
5	50 TO 59 YEARS	1	12	19	32
6	>59 YEARS		1	2	3
GRAND TOTAL		18	47	59	124
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	7	10	1	18
3	6 TO 10 YEARS	2	13	20	35
4	11 TO 20 YEARS	6	14	16	36
5	>20 YEARS	3	10	22	35
GRAND TOTAL		18	47	59	124
1.5.		1	2	3	GRAND TOTAL
1	UPPER MANAGEMENT	5	7	1	13
2	MIDDLE MANAGEMENT	11	30	50	91
3	LOWER MANAGEMENT		4	4	8
4	JUNIOR OFFICERS	2	6	4	12
GRAND TOTAL		18	47	59	124

COMPARED TO THE YEARS BEFORE 2002, RATE THE FOLLOWING FACTORS RELATING TO THE PROCUREMENT PROCESS AT THE PORT OF DURBAN:

SURVEY QUI	ESTIONNAIRE COUNT: PORT ADM	MINISTRATORS	2.2.2.		
	LAPSE RATE FOR DELIVERY	BETTER	SIMILAR	WORSE	
1.1.		1	2	3	GRAND TOTAL
1	MALE	8	36	56	100
2	FEMALE	6	12	6	24
GRAND TOTAL		14	48	62	124
1.2.		1	2	3	GRAND TOTAL
1	BLACK	5	15	3	23
2	ASIAN	2	5	8	15
3	COLOURED	1	2	3	6
4	WHITE	6	26	47	79
5	OTHER			1	1
GRAND TOTAL		14	48	62	124
1.3.		1	2	3	GRAND TOTAL
2	20 TO 29 YEARS	2	6	3	11
3	30 TO 39 YEARS	6	16	21	43
4	40 TO 49 YEARS	6	15	14	35
5	50 TO 59 YEARS		9	23	32
6	>59 YEARS		2	1	3
GRAND TOTAL		14	48	62	124
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	5	11	2	18
3	6 TO 10 YEARS	2	12	21	35
4	11 TO 20 YEARS	5	16	15	36
5	>20 YEARS	2	9	24	35
GRAND TOTAL		14	48	62	124
1.5.		1	2	3	GRAND TOTAL
1	UPPER MANAGEMENT	5	5	3	13
2	MIDDLE MANAGEMENT	9	29	53	91
3	LOWER MANAGEMENT		5	3	8
4	JUNIOR OFFICERS		9	3	12
GRAND TOTAL		14	48	62	124

COMPARED TO THE YEARS BEFORE 2002, RATE THE FOLLOWING FACTORS RELATING TO THE PROCUREMENT PROCESS AT THE PORT OF DURBAN:

	'VALUE FOR MONEY' COST	BETTER	SIMILAR	WORSE	
1.1.		1	2	3	GRAND TOTAL
1	MALE	10	30	60	100
2	FEMALE	8	12	4	24
GRAND TOTAL		18	42	64	124
1.2.		1	2	3	GRAND TOTAL
1	BLACK	7	12	4	23
2	ASIAN	2	4	9	15
3	COLOURED	1		5	6
4	WHITE	8	26	45	79
5	OTHER			1	1
GRAND TOTAL		18	42	64	124
1.3.		1	2	3	GRAND TOTAL
2	20 TO 29 YEARS	2	6	3	11
3	30 TO 39 YEARS	8	12	23	43
4	40 TO 49 YEARS	7	11	17	35
5	50 TO 59 YEARS	1	11	20	32
6	>59 YEARS		2	1	3
GRAND TOTAL		18	42	64	124
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	6	10	2	18
3	6 TO 10 YEARS	3	8	24	35
4	11 TO 20 YEARS	6	13	17	36
5	>20 YEARS	3	11	21	35
GRAND TOTAL		18	42	64	124
1.5.		1	2	3	GRAND TOTAL
1	UPPER MANAGEMENT	7	3	3	13
2	MIDDLE MANAGEMENT	9	29	53	91
3	LOWER MANAGEMENT	1	4	3	8
4	JUNIOR OFFICERS	1	6	5	12
GRAND TOTAI		18	42	64	124

SINCE 2002, HOW DO YOU RATE THE QUALITY OF MARINE SERVICE AT THE PORT OF DURBAN?

SURVEY QU	ESTIONNAIRE COUNT: PORT A	DMINISTRATOR	S 2.3.1.		
	BERTHING OPERATIONS	ABOVE	AVERAGE	BELOW	
		AVERAGE		AVERAGE	
1.1.		1	2	3	GRAND TOTAL
1	MALE	13	64	23	100
2	FEMALE	8	14	2	24
GRAND TOTAL		21	78	25	124
1.2.		1	2	3	GRAND TOTAL
1	BLACK	8	13	2	23
2	ASIAN	2	11	2	15
3	COLOURED	2	4		6
4	WHITE	9	49	21	79
5	OTHER		1		1
GRAND TOTAL		21	78	25	124
1.3.		1	2	3	GRAND TOTAL
2	20 TO 29 YEARS	2	8	1	11
3	30 TO 39 YEARS	11	22	10	43
4	40 TO 49 YEARS	6	26	3	35
5	50 TO 59 YEARS	2	21	9	32
6	>59 YEARS		1	2	3
GRAND TOTAL		21	78	25	124
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	9	7	2	18
3	6 TO 10 YEARS	3	26	6	35
4	11 TO 20 YEARS	6	24	6	36
5	>20 YEARS	3	21	11	35
GRAND TOTAL		21	78	25	124
1.5.		1	2	3	GRAND TOTAL
1	UPPER MANAGEMENT	4	9		13
2	MIDDLE MANAGEMENT	12	59	20	91
3	LOWER MANAGEMENT	2	4	2	8
4	JUNIOR OFFICERS	3	6	3	12
GRAND TOTAI		21	78	25	124

SINCE 2002	HOW DO YOU	RATE THE QUALIT	Y OF MARINE SERV	ICE AT THE PORT C)F DURBAN?

	DREDGERS	ABOVE AVERAGE	AVERAGE	BELOW	
1.1.		1	2	3	GRAND TOTAL
1	MALE	21	74	5	100
2	FEMALE	9	14	1	24
GRAND TOTAL		30	88	6	124
1.2.		1	2	3	GRAND TOTAL
1	BLACK	11	11	1	23
2	ASIAN	4	10	1	15
3	COLOURED		5	1	6
4	WHITE	15	61	3	79
5	OTHER		1		1
GRAND TOTAL		30	88	6	124
13		1	2	3	
1.5. o	20 TO 20 VEADS	2	0	5	
2	20 TO 29 TEARS	15	25	3	13
3		7	20	5	43
5	50 TO 50 VEARS	7	20	2	33
5		5	25	1	32
GRAND TOTAI	>39 TEAN3	30	88	6	124
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	11	6	1	18
3	6 TO 10 YEARS	4	29	2	35
4	11 TO 20 YEARS	9	27		36
5	>20 YEARS	6	26	3	35
GRAND TOTAL		30	88	6	124
1.5.		1	2	3	GRAND TOTAL
1	UPPER MANAGEMENT	5	7	1	13
2	MIDDLE MANAGEMENT	19	67	5	91
3	LOWER MANAGEMENT	2	6		8
4	JUNIOR OFFICERS	4	8		12
GRAND TOTAL		30	88	6	124

SINCE 2002, HOW DO	YOU RATE THE QUALITY C	OF MARINE SERVICE AT	THE PORT OF DURBAN?

	FLOATING CRANES	ABOVE	AVERAGE	BELOW	
1.1.		1	2	3	GRAND TOTAL
1	MALE	15	79	6	100
2	FEMALE	8	15	1	24
GRAND		23	94	7	124
TOTAL					
1.2.		1	2	3	GRAND TOTAL
1	BLACK	8	14	1	23
2	ASIAN	5	9	1	15
3	COLOURED	1	4	1	6
4	WHITE	9	66	4	79
5	OTHER		1		1
GRAND		23	94	7	124
TOTAL					
1.0		1	2	2	
1.3.		1	2	3	
2	20 10 29 YEARS	2	9	0	11
3	30 TO 39 YEARS	13	27	3	43
4	40 TO 49 YEARS	6	28	1	35
5	50 TO 59 YEARS	2	27	3	32
6	>59 YEARS		3		3
GRAND		23	94	7	124
TOTAL					
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	8	9	1	18
3	6 TO 10 YEARS	5	30	-	35
4	11 TO 20 YEARS	7	26	3	36
5	>20 YEARS	3	29	3	35
GRAND		23	94	7	124
TOTAL		20	34	7	124
1.5.		1	2	3	GRAND TOTAL
1	UPPER MANAGEMENT	3	9	1	13
2	MIDDLE MANAGEMENT	15	73	3	91
3	LOWER MANAGEMENT	2	5	1	8
4	JUNIOR OFFICERS	3	7	2	12
GRAND TOTAI		23	94	7	124

	HARBOUR LAUNCHES	ABOVE AVERAGE	AVERAGE	BELOW AVERAGE	
1.1.		1	2	3	GRAND TOTAL
1	MALE	15	61	24	100
2	FEMALE	8	15	1	24
GRAND		23	76	25	124
TOTAL					
1.2.		1	2	3	GRAND TOTAL
1	BLACK	8	13	2	23
2	ASIAN	3	8	4	15
3	COLOURED	2	3	1	6
4	WHITE	10	51	18	79
5	OTHER		1		1
GRAND TOTAL		23	76	25	124
13		1	2	3	
1.3.		2	7	1	
2	20 TO 29 TEARS	3	7	1	10
3	30 TO 39 YEARS	12	22	9	43
4	40 TO 49 YEARS	6	23	6	35
5	50 TO 59 YEARS	2	22	8	32
6	>59 YEARS		2	1	3
GRAND TOTAL		23	76	25	124
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	9	7	2	18
3	6 TO 10 YEARS	5	23	7	35
4	11 TO 20 YEARS	6	23	7	36
5	>20 YEARS	3	23	9	35
GRAND TOTAL		23	76	25	124
15		1	2	3	GBAND TOTAL
1.0.		4	7	2	13
י ר		-T 10	61	17	01
2	MANAGEMENT	15	01	17	31
3	LOWER MANAGEMENT	2	2	4	8
4	JUNIOR OFFICERS	4	6	2	12
GRAND		23	76	25	124

	PILOTAGE	ABOVE AVERAGE	AVERAGE	BELOW AVERAGE	
1.1.		1	2	3	GRAND TOTAL
1	MALE	17	62	21	100
2	FEMALE	7	14	3	24
GRAND TOTAL		24	76	24	124
1.2.		1	2	3	GRAND TOTAL
1	BLACK	7	14	2	23
2	ASIAN	3	8	4	15
3	COLOURED	3	2	1	6
4	WHITE	11	51	17	79
5	OTHER		1		1
GRAND TOTAL		24	76	24	124
1.3.		1	2	3	GRAND TOTAL
2	20 TO 29 YEARS	1	10		11
3	30 TO 39 YEARS	12	18	13	43
4	40 TO 49 YEARS	8	22	5	35
5	50 TO 59 YEARS	2	24	6	32
6	>59 YEARS	1	2		3
GRAND TOTAL		24	76	24	124
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	8	8	2	18
3	6 TO 10 YEARS	4	20	11	35
4	11 TO 20 YEARS	8	23	5	36
5	>20 YEARS	4	25	6	35
GRAND TOTAL		24	76	24	124
1.5.		1	2	3	GRAND TOTAL
1	UPPER MANAGEMENT	4	8	1	13
2	MIDDLE MANAGEMENT	16	54	21	91
3	LOWER MANAGEMENT	2	4	2	8
4	JUNIOR OFFICERS	2	10		12
GRAND TOTAL		24	76	24	124

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 2.3.5.

	TUGS AND CRAFT	ABOVE AVERAGE	AVERAGE	BELOW AVERAGE	
1.1.		1	2	3	GRAND TOTAL
1	MALE	14	71	15	100
2	FEMALE	9	13	2	24
GBAND		23	84	17	124
TOTAL					
1.0					
1.2.		1	2	3	GRAND TOTAL
1	BLACK	10	12	1	23
2	ASIAN	2	10	3	15
3	COLOURED	2	3	1	6
4	WHITE	9	58	12	79
5	OTHER		1		1
GRAND TOTAL		23	84	17	124
1.3.		1	2	3	GRAND TOTAL
2	20 TO 29 YEARS	3	8		11
3	30 TO 39 YEARS	11	25	7	43
4	40 TO 49 YEARS	7	24	4	35
5	50 TO 59 YEARS	2	24	6	32
6	>59 YEARS		3		3
GRAND TOTAL		23	84	17	124
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	10	7	1	18
3	6 TO 10 YEARS	3	27	5	35
4	11 TO 20 YEARS	7	23	6	36
5	>20 YEARS	3	27	5	35
GRAND TOTAL		23	84	17	124
15		1	2	3	GRAND TOTAL
1		4	9		13
•	MANAGEMENT				
2	MIDDLE MANAGEMENT	13	63	15	91
3	LOWER MANAGEMENT	2	4	2	8
4	JUNIOR OFFICERS	4	8		12
GRAND TOTAL		23	84	17	124

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 2.3.6.

ARE THERE ANY REASONABLE MEASURES THAT CAN BE TAKEN TO REDUCE PORT CHARGES AT THE PORT OF DURBAN?

SURVEY	QUESTIONNAIRE COU	NT: PORT ADMINIS	TRATORS 3.1.		
		YES	NO	DO NOT KNOW	
1.1.		1	2	3	GRAND TOTAL
1	MALE	42	40	18	100
2	FEMALE	5	16	3	24
GRAND		47	56	21	124
TOTAL					
1.2.		1	2	3	GRAND TOTAL
1	BLACK	6	15	2	23
2	ASIAN	4	8	3	15
3	COLOURED	3	2	1	6
4	WHITE	33	31	15	79
5	OTHER	1			1
GRAND		47	56	21	124
TOTAL					
1.3.		1	2	3	GRAND TOTAL
2	20 TO 29 YEARS	4	5	2	11
3	30 TO 39 YEARS	17	23	3	43
4	40 TO 49 YEARS	12	15	8	35
5	50 TO 59 YEARS	14	11	7	32
6	>59 YEARS		2	1	3
GRAND		47	56	21	124
TOTAL					
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	5	11	2	18
3	6 TO 10 YEARS	16	15	4	35
4	11 TO 20 YEARS	13	20	3	36
5	>20 YEARS	13	10	12	35
GRAND		47	56	21	124
TOTAL					
1.5.		1	2	3	GRAND TOTAL
1	UPPER MANAGEMENT	4	5	4	13
2	MIDDLE MANAGEMENT	39	39	13	91
3	LOWER MANAGEMENT	1	7		8
4	JUNIOR OFFICERS	3	5	4	12
GRAND		47	56	21	124
TOTAL					

SINCE 2002.	THE PORT	OF DURBAN'S	CONTAINER	HANDLING	OPERATIONS	HAVE:
ONICE LOOL,		01 00110/110	001117 111211			

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 3.3.						
		IMPROVED	STAYED THE SAME	WORSENED		
1.1.		1	2	3	GRAND TOTAL	
1	MALE	22	50	28	100	
2	FEMALE	16	6	2	24	
GRAND		38	56	30	124	
TOTAL						
1.2		1	2	3		
1.2.	BLACK	1	2	3		
1 2		13	9	6	15	
2		3	0	0		
3	WHITE	3	2	1	0	
4		19	39	21	79	
	UITER	00	50	1	1	
TOTAL		38	90	30	124	
1.3.		1	2	3	GRAND TOTAL	
2	20 TO 29 YEARS	5	5	1	11	
3	30 TO 39 YEARS	16	17	10	43	
4	40 TO 49 YEARS	10	13	12	35	
5	50 TO 59 YEARS	7	20	5	32	
6	>59 YEARS		1	2	3	
GRAND		38	56	30	124	
TOTAL						
			0	0		
1.4.		1	2	3	GRAND TOTAL	
2	1 10 5 YEARS	13	5		18	
3	6 10 10 YEARS	8	18	9	35	
4	11 TO 20 YEARS	10	1/	9	36	
5	>20 YEARS	/	16	12	35	
GRAND		38	56	30	124	
101/12						
1.5.		1	2	3	GRAND TOTAL	
1	UPPER	10	2	1	13	
	MANAGEMENT		44	05		
2	MANAGEMENT	22	44	25	91	
3	LOWER		5	3	8	
4		6	5	1	10	
	UDINION OFFICENS	20	5	20	12	
TOTAL		50	50	50	124	

DOES THE VESSEL TRAFFIC SYSTEM (VTS) PROVIDE ACCURATE NAVIGATION INFORMATION DURING PORT OPERATIONS AT THE PORT OF DURBAN?

		ALWAYS	SOMETIMES	NEVER	DO NOT KNOW	
1.1.		1	2	3	4	GRAND
1	MALE	24	48	10	18	100
2	FEMALE	14	6	1	3	24
GRAND TOTAL		38	54	11	21	124
1.2.		1	2	3	4	GRAND TOTAL
1	BLACK	13	10			23
2	ASIAN	1	11	1	2	15
3	COLOURED	5		1		6
4	WHITE	19	32	9	19	79
5	OTHER		1			1
GRAND TOTAL		38	54	11	21	124
1.3.		1	2	3	4	GRAND TOTAL
2	20 TO 29 YEARS	4	6		1	11
3	30 TO 39 YEARS	16	20	5	2	43
4	40 TO 49 YEARS	11	11	2	11	35
5	50 TO 59 YEARS	7	15	4	6	32
6	>59 YEARS		2		1	3
GRAND TOTAL		38	54	11	21	124
						0.54115
1.4.		1	2	3	4	GRAND TOTAL
2	1 TO 5 YEARS	11	7	-	-	18
3	6 TO 10 YEARS	10	19	3	3	35
4	11 10 20 YEARS	12	14	3	/	36
5 GRAND	>20 YEARS	38	14 54	5	21	35 124
IUIAL						
1.5.		1	2	3	4	GRAND TOTAL
1	UPPER MANAGEMENT	7	3		3	13
2	MIDDLE MANAGEMENT	25	44	11	11	91
3	LOWER MANAGEMENT	3	4		1	8
4	JUNIOR OFFICERS	3	3		6	12
GRAND TOTAL		38	54	11	21	124

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 3.4.

SURVEY Q	UESTIONNAIRE COUNT	: PORT ADMINIS	FRATORS 4.1.1.		
	CARGO HANDLING	YES	NO	DO NOT KNOW	
1.1.		1	2	3	GRAND TOTAL
1	MALE	33	45	22	100
2	FEMALE	17	5	2	24
GRAND TOTAL		50	50	24	124
1.0		1	0	0	
1.2.		1	2	3	
1		10	4		23
2		6	8	1	15
3	COLOURED	2	3	1	6
4	WHITE	24	34	21	79
5	OTHER		1		1
GRAND TOTAL		50	50	24	124
1.0		1			
1.3.		1	2	3	GRAND TOTAL
2	20 TO 29 YEARS	5	4	2	11
3	30 TO 39 YEARS	21	19	3	43
4	40 TO 49 YEARS	13	15	7	35
5	50 TO 59 YEARS	10	11	11	32
6	>59 YEARS	1	1	1	3
GRAND TOTAL		50	50	24	124
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	15	1	2	18
3	6 TO 10 YEARS	13	18	4	35
4	11 TO 20 YEARS	14	19	3	36
5	>20 YEARS	8	12	15	35
GRAND TOTAL		50	50	24	124
1.5.		1	2	3	GRAND TOTAL
1	UPPER MANAGEMENT	8	1	4	13
2	MIDDLE MANAGEMENT	34	41	16	91
3	LOWER MANAGEMENT	2	5	1	8
4	JUNIOR OFFICERS	6	3	3	12
GRAND TOTAL		50	50	24	124

SURVEYC	QUESTIONNAIRE COUNT: PO		RATORS 4.1.2.		
	MARINE OPERATIONS	YES	NO	DO NOT K	NOW
1.1.		1	2	3	GRAND TOTAL
1	MALE	39	54	7	100
2	FEMALE	20	3	1	24
GRAND TOTAL		59	57	8	124
			-		
1.2.		1	2	3	GRAND TOTAL
1	BLACK	19	3	1	23
2	ASIAN	7	7	1	15
3	COLOURED	3	3		6
4	WHITE	30	43	6	79
5	OTHER		1		1
GRAND TOTAL		59	57	8	124
1.3.		1	2	3	GRAND TOTAL
2	20 TO 29 YEARS	6	4	1	11
3	30 TO 39 YEARS	23	19	1	43
4	40 TO 49 YEARS	15	15	5	35
5	50 TO 59 YEARS	14	17	1	32
6	>59 YEARS	1	2		3
GRAND		59	57	8	124
TOTAL					
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	16	1	1	18
3	6 TO 10 YEARS	13	21	1	35
4	11 TO 20 YEARS	17	18	1	36
5	>20 YEARS	13	17	5	35
GRAND		59	57	8	124
TOTAL					
1.5.		1	2	3	GRAND TOTAL
1	UPPER MANAGEMENT	10		3	13
2	MIDDLE MANAGEMENT	39	48	4	91
3	LOWER MANAGEMENT	4	4		8
4	JUNIOR OFFICERS	6	5	1	12
GRAND TOTAL		59	57	8	124

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 4.1.3.							
	EMERGENCY SERVICES	YES	NO	DO NOT KNOW			
1.1.		1	2	3	GRAND TOTAL		
1	MALE	36	37	27	100		
2	FEMALE	20	2	2	24		
GRAND TOTAL		56	39	29	124		
1.2.		1	2	3	GRAND TOTAL		
1	BLACK	18	3	2	23		
2	ASIAN	5	6	4	15		
3	COLOURED	4	2		6		
4	WHITE	29	27	23	79		
5	OTHER		1		1		
GRAND TOTAL		56	39	29	124		
1.3.		1	2	3	GRAND TOTAL		
2	20 TO 29 YEARS	5	2	4	11		
3	30 TO 39 YEARS	24	13	6	43		
4	40 TO 49 YEARS	15	12	8	35		
5	50 TO 59 YEARS	11	11	10	32		
6	>59 YEARS	1	1	1	3		
GRAND TOTAL		56	39	29	124		
1.4.		1	2	3	GRAND TOTAL		
2	1 TO 5 YEARS	15	1	2	18		
3	6 TO 10 YEARS	15	12	8	35		
4	11 TO 20 YEARS	17	15	4	36		
5	>20 YEARS	9	11	15	35		
GRAND TOTAL		56	39	29	124		
1.5.		1	2	3	GRAND TOTAL		
1	UPPER MANAGEMENT	7	1	5	13		
2	MIDDLE MANAGEMENT	38	36	17	91		
3	LOWER MANAGEMENT	3	1	4	8		
4	JUNIOR OFFICERS	8	1	3	12		
GRAND TOTAL		56	39	29	124		

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 4.1.4.							
	DRY-DOCK AND SHIP	YES	NO	DO NOT KNOW			
1.1.		1	2	3	GRAND TOTAL		
1	MALE	31	39	30	100		
2	FEMALE	16	3	5	24		
GRAND		47	42	35	124		
TOTAL							
1.0		4	2	2			
1.2.	PLACK	1	2	3			
1		15	4	4	23		
2		6	7	2	15		
3		1	4	1	6		
4	WHITE	25	26	28	79		
5	OTHER		1		1		
GRAND		47	42	35	124		
TOTAL							
1.3.		1	2	3	GRAND TOTAL		
2	20 TO 29 YEARS	3	3	5	11		
3	30 TO 39 YEARS	20	17	6	43		
4	40 TO 49 YEARS	14	10	11	35		
5	50 TO 59 YEARS	9	11	12	32		
6	>59 YEARS	1	1	1	3		
GRAND		47	42	35	124		
TOTAL							
1.4.		1	2	3	GRAND TOTAL		
2	1 TO 5 YEARS	12	2	4	18		
3	6 TO 10 YEARS	13	15	7	35		
4	11 TO 20 YEARS	15	14	7	36		
5	>20 YEARS	7	11	17	35		
GRAND		47	42	35	124		
TOTAL							
15		1	2	3	GRAND TOTAL		
1.0.		6	2	5	13		
2		35	- 36	20	91		
3		2	2		8		
1		2 A	2		10		
		4	2 40	0	12		
TOTAL		4/	42	30	124		

I BELIEVE THAT MY SKILLS ARE FULLY RECOGNISED AND UTILISED BY DURBAN'S PORT ADMINISTRATORS.

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 4.2.							
		STRONGLY	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE	
1.1.		1	2	3	4	5	GRAND
1	MALE	8	28	14	32	18	100
2	FEMALE	13	7			4	24
GRAND		21	35	14	32	22	124
TOTAL							
1.2.		1	2	3	4	5	GRAND
1	BLACK	14	6			3	23
2	ASIAN	1	6	2	3	3	15
3	COLOURED		3		2	1	6
4	WHITE	6	20	11	27	15	79
5	OTHER			1			1
GRAND TOTAL		21	35	14	32	22	124
1.3.		1	2	3	4	5	GRAND TOTAL
2	20 TO 29 YEARS	4	4		2	1	11
3	30 TO 39 YEARS	11	9	4	9	10	43
4	40 TO 49 YEARS	5	12	5	6	7	35
5	50 TO 59 YEARS	1	8	5	14	4	32
6	>59 YEARS		2		1		3
GRAND TOTAL		21	35	14	32	22	124
				-		_	
1.4.		1	2	3	4	5	GRAND TOTAL
2	1 TO 5 YEARS	11	4	1		2	18
3	6 TO 10 YEARS	3	9	3	12	8	35
4	11 TO 20 YEARS	5	10	5	10	6	36
5	>20 YEARS	2	12	5	10	6	35
GRAND TOTAL		21	35	14	32	22	124
				-		_	
1.5.		1	2	3	4	5	GRAND TOTAL
1	UPPER MANAGEMENT	6	5	1	1		13
2	MIDDLE MANAGEMENT	12	23	13	25	18	91
3	LOWER MANAGEMENT	1	3		4		8
4	JUNIOR OFFICERS	2	4		2	4	12
GRAND TOTAL		21	35	14	32	22	124

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SURVEY QU	ESTIONNAIRE COUNT: PORT	ADMINISTRAT	ORS 5.1.1.		
	MARINE OPERATIONS	YES	NO	DO NOT KNO	wc
1.1.		1	2	3	GRAND TOTAL
1	MALE	79	14	7	100
2	FEMALE	12	10	2	24
GRAND TOTAL		91	24	9	124
1.2.		1	2	3	GRAND TOTAL
1	BLACK	12	11		23
2	ASIAN	11	2	2	15
3	COLOURED	5	1		6
4	WHITE	62	10	7	79
5	OTHER	1			1
GRAND TOTAL		91	24	9	124
1.3.		1	2	3	GRAND IOTAL
2	20 TO 29 YEARS	8	3	-	11
3	30 TO 39 YEARS	29	12	2	43
4	40 TO 49 YEARS	26	4	5	35
5	50 TO 59 YEARS	26	5	1	32
6	>59 YEARS	2		1	3
GRAND TOTAL		91	24	9	124
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	9	9		18
3	6 TO 10 YEARS	28	6	1	35
4	11 TO 20 YEARS	29	4	3	36
5	>20 YEARS	25	5	5	35
GRAND TOTAL		91	24	9	124
1.5.		1	2	3	GRAND TOTAL
1	UPPER MANAGEMENT	5	5	3	13
2	MIDDLE MANAGEMENT	70	16	5	91
3	LOWER MANAGEMENT	6	2		8
4	JUNIOR OFFICERS	10	1	1	12
GRAND TOTAL		91	24	9	124

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 5.1.2.						
	CONTAINER HANDLING OPERATIONS	YES	NO	DO NOT KNOW		
1.1.		1	2	3	GRAND TOTAL	
1	MALE	72	10	18	100	
2	FEMALE	13	8	3	24	
GRAND TOTAL		85	18	21	124	
1.2.		1	2	3	GRAND TOTAL	
1	BLACK	13	9	1	23	
2	ASIAN	12	1	2	15	
3	COLOURED	4	1	1	6	
4	WHITE	55	7	17	79	
5	OTHER	1			1	
GRAND TOTAL		85	18	21	124	
1.3.		1	2	3	GRAND TOTAL	
2	20 TO 29 YEARS	5	4	2	11	
3	30 TO 39 YEARS	31	8	4	43	
4	40 TO 49 YEARS	26	3	6	35	
5	50 TO 59 YEARS	22	3	7	32	
6	>59 YEARS	1		2	3	
GRAND TOTAL		85	18	21	124	
1.4.		1	2	3	GRAND TOTAL	
2	1 TO 5 YEARS	9	7	2	18	
3	6 TO 10 YEARS	27	5	3	35	
4	11 TO 20 YEARS	30	3	3	36	
5	>20 YEARS	19	3	13	35	
GRAND TOTAL		85	18	21	124	
1.5.		1	2	3	GRAND TOTAL	
1	UPPER MANAGEMENT	5	4	4	13	
2	MIDDLE MANAGEMENT	68	12	11	91	
3	LOWER MANAGEMENT	6	1	1	8	
4	JUNIOR OFFICERS	6	1	5	12	
GRAND TOTAL		85	18	21	124	

SURVEY	SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 5.1.3.							
	CAR HANDLING OPERATIONS	YES	NO	DO NOT KNOW				
1.1.		1	2	3	GRAND TOTAL			
1	MALE	51	21	28	100			
2	FEMALE	11	10	3	24			
GRAND TOTAL		62	31	31	124			
1.2.		1	2	3	GRAND TOTAL			
1	BLACK	9	13	1	23			
2	ASIAN	9	2	4	15			
3	COLOURED	4	1	1	6			
4	WHITE	39	15	25	79			
5	OTHER	1			1			
GRAND TOTAL		62	31	31	124			
1.3.		1	2	3	GRAND TOTAL			
2	20 TO 29 YEARS	4	5	2	11			
3	30 TO 39 YEARS	21	15	7	43			
4	40 TO 49 YEARS	19	5	11	35			
5	50 TO 59 YEARS	18	5	9	32			
6	>59 YEARS		1	2	3			
GRAND TOTAL		62	31	31	124			
1.4.		1	2	3	GRAND TOTAL			
2	1 TO 5 YEARS	6	10	2	18			
3	6 TO 10 YEARS	19	9	7	35			
4	11 TO 20 YEARS	22	6	8	36			
5	>20 YEARS	15	6	14	35			
GRAND TOTAL		62	31	31	124			
1.5.		1	2	3	GRAND TOTAL			
1	UPPER MANAGEMENT	1	8	4	13			
2	MIDDLE MANAGEMENT	50	21	20	91			
3	LOWER MANAGEMENT	5	1	2	8			
4	JUNIOR OFFICERS	6	1	5	12			
GRAND TOTAL		62	31	31	124			

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 5.1.4.						
	GAS, CHEMICAL AND OIL OPERATIONS	YES	NO	DO NOT KNOW		
1.1.		1	2	3	GRAND TOTAL	
1	MALE	50	25	25	100	
2	FEMALE	11	11	2	24	
GRAND TOTAL		61	36	27	124	
1.2.		1	2	3	GRAND TOTAL	
1	BLACK	9	13	1	23	
2	ASIAN	8	3	4	15	
3	COLOURED	4	1	1	6	
4	WHITE	39	19	21	79	
5	OTHER	1			1	
GRAND TOTAL		61	36	27	124	
1.3.		1	2	3	GRAND TOTAL	
2	20 TO 29 YEARS	4	5	2	11	
3	30 TO 39 YEARS	19	17	7	43	
4	40 TO 49 YEARS	20	8	7	35	
5	50 TO 59 YEARS	18	5	9	32	
6	>59 YEARS		1	2	3	
GRAND TOTAL		61	36	27	124	
1.4.		1	2	3	GRAND TOTAL	
2	1 TO 5 YEARS	6	10	2	18	
3	6 TO 10 YEARS	17	12	6	35	
4	11 TO 20 YEARS	22	9	5	36	
5	>20 YEARS	16	5	14	35	
GRAND TOTAL		61	36	27	124	
1.5.		1	2	3	GRAND TOTAL	
1	UPPER MANAGEMENT	1	8	4	13	
2	MIDDLE MANAGEMENT	50	26	15	91	
3	LOWER MANAGEMENT	4	1	3	8	
4	JUNIOR OFFICERS	6	1	5	12	
GRAND TOTAL		61	36	27	124	

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 5.1.5.						
	GENERAL CARGO HANDLING OPERATIONS	YES	NO	DO NOT KNOW		
1.1.		1	2	3	GRAND TOTAL	
1	MALE	59	19	22	100	
2	FEMALE	11	10	3	24	
GRAND TOTAL		70	29	25	124	
1.2.		1	2	3	GRAND TOTAL	
1	BLACK	9	13	1	23	
2	ASIAN	10	1	4	15	
3	COLOURED	4	1	1	6	
4	WHITE	46	14	19	79	
5	OTHER	1			1	
GRAND TOTAL		70	29	25	124	
1.3.		1	2	3	GRAND TOTAL	
2	20 TO 29 YEARS	4	5	2	11	
3	30 TO 39 YEARS	24	14	5	43	
4	40 TO 49 YEARS	25	3	7	35	
5	50 TO 59 YEARS	17	6	9	32	
6	>59 YEARS		1	2	3	
GRAND TOTAL		70	29	25	124	
1.4.		1	2	3	GRAND TOTAL	
2	1 TO 5 YEARS	7	9	2	18	
3	6 TO 10 YEARS	20	10	5	35	
4	11 TO 20 YEARS	29	3	4	36	
5	>20 YEARS	14	7	14	35	
GRAND TOTAL		70	29	25	124	
1.5.		1	2	3	GRAND TOTAL	
1	UPPER MANAGEMENT	3	6	4	13	
2	MIDDLE MANAGEMENT	56	19	16	91	
3	LOWER MANAGEMENT	4	3	1	8	
4	JUNIOR OFFICERS	7	1	4	12	
GRAND TOTAL		70	29	25	124	

SURVEY Q	UESTIONNAIRE COUNT: PO	RT ADMINISTR	ATORS 5.1.6.		
	RAILWAY SIDINGS	YES	NO	DO NOT KNOV	V
1.1.		1	2	3	GRAND TOTAL
1	MALE	56	18	26	100
2	FEMALE	10	8	6	24
GRAND TOTAL		66	26	32	124
1.2.		1	2	3	GRAND TOTAL
1	BLACK	11	9	3	23
2	ASIAN	9	2	4	15
3	COLOURED	4	1	1	6
4	WHITE	41	14	24	79
5	OTHER	1			1
GRAND TOTAL		66	26	32	124
13		1	2	3	GRAND TOTAL
2	20 TO 29 VEABS	4	4	3	11
2	30 TO 39 VEARS	+	13	7	11
3		20	5	, 10	35
5	50 TO 59 VEARS	19	3	10	32
6		13	3	10	2
	>J9 TEANS	66	26	2	124
TOTAL		00	20	52	124
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	/	/	4	18
3	6 TO 10 YEARS	19	11	5	35
4	11 TO 20 YEARS	25	4	7	36
5	>20 YEARS	15	4	16	35
GRAND TOTAL		66	26	32	124
				-	
1.5.		1	2	3	GRAND TOTAL
1		2	6	5	13
2	MIDDLE MANAGEMENT	55	17	19	91
3	LOWER MANAGEMENT	4	2	2	8
4	JUNIOR OFFICERS	5	1	6	12
GRAND TOTAL		66	26	32	124

SURVEYG			ATORS 5.2.1.			1
	MARINE OPERATIONS	ALWAYS	SOMETIMES	NEVER	DO NOT KNOW	
1.1.		1	2	3	4	GRAND TOTAL
1	MALE	10	38	43	9	100
2	FEMALE	5	9	7	3	24
GRAND TOTAL		15	47	50	12	124
1.2.		1	2	3	4	GRAND TOTAL
1	BLACK	4	12	6	1	23
2	ASIAN	1	5	9		15
3	COLOURED	2	2	2		6
4	WHITE	8	28	32	11	79
5	OTHER			1		1
GRAND TOTAL		15	47	50	12	124
1.3.		1	2	3	4	GRAND TOTAL
2	20 TO 29 YEARS		5	5	1	11
3	30 TO 39 YEARS	8	16	19		43
4	40 TO 49 YEARS	5	11	12	7	35
5	50 TO 59 YEARS	2	14	13	3	32
6	>59 YEARS		1	1	1	3
GRAND TOTAL		15	47	50	12	124
1.4.		1	2	3	4	TOTAL
2	1 TO 5 YEARS	5	8	4	1	18
3	6 TO 10 YEARS	3	13	19		35
4	11 TO 20 YEARS	5	14	13	4	36
5	>20 YEARS	2	12	14	7	35
GRAND TOTAL		15	47	50	12	124
1.5		1	2	2	4	GRAND
1.5.		3	2	3	4 1	TOTAL
2		12	32	41	6	01
2		12	ےد ۲	5	0	31
3			3	2	5	0
		15	4	5	10	12
TOTAL		15	47	50	12	124

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 5.2.2.						
	CONTAINER HANDLING OPERATIONS	ALWAYS	SOMETIMES	NEVER	DO NOT KNOW	
1.1.		1	2	3	4	GRAND TOTAL
1	MALE	8	31	43	18	100
2	FEMALE	6	8	5	5	24
GRAND TOTAL		14	39	48	23	124
1.2.		1	2	3	4	GRAND TOTAL
1	BLACK	5	10	5	3	23
2	ASIAN		6	8	1	15
3	COLOURED	1	1	2	2	6
4	WHITE	8	22	32	17	79
5	OTHER			1		1
GRAND TOTAL		14	39	48	23	124
1.3.		1	2	3	4	GRAND TOTAL
2	20 TO 29 YEARS	1	3	3	4	11
3	30 TO 39 YEARS	6	16	18	3	43
4	40 TO 49 YEARS	4	12	13	6	35
5	50 TO 59 YEARS	3	8	13	8	32
6	>59 YEARS			1	2	3
GRAND TOTAL		14	39	48	23	124
1.4.		1	2	3	4	GRAND
2	1 TO 5 YEARS	4	7	3	4	18
3	6 TO 10 YEARS	3	12	16	4	35
4	11 TO 20 YEARS	5	13	15	3	36
5	>20 YEARS	2	7	14	12	35
GRAND TOTAL		14	39	48	23	124
1.5.		1	2	3	4	GRAND TOTAL
1	UPPER MANAGEMENT	2	8	1	2	13
2	MIDDLE MANAGEMENT	12	25	41	13	91
3	LOWER MANAGEMENT		3	5		8
4	JUNIOR OFFICERS		3	1	8	12
GRAND TOTAL		14	39	48	23	124

			COMETIMES	NEVED		1
	OPERATIONS	ALWATS	SOMETIMES	NEVEN	DO NOT KNOW	
1.1.		1	2	3	4	GRAND
1	MALE	7	30	40	23	100
2	FEMALE	6	9	4	5	24
GRAND TOTAL		13	39	44	28	124
1.2.		1	2	3	4	GRAND
1	BLACK	5	12	3	3	23
2	ASIAN		5	8	2	15
3	COLOURED	1	1	2	2	6
4	WHITE	7	21	30	21	79
5	OTHER			1		1
GRAND TOTAL		13	39	44	28	124
1.3.		1	2	3	4	GRAND TOTAL
2	20 TO 29 YEARS	1	3	3	4	11
3	30 TO 39 YEARS	6	16	17	4	43
4	40 TO 49 YEARS	4	11	11	9	35
5	50 TO 59 YEARS	2	9	13	8	32
6	>59 YEARS				3	3
GRAND TOTAL		13	39	44	28	124
			-	-		
1.4.		1	2	3	4	GRAND TOTAL
2	1 TO 5 YEARS	4	9	1	4	18
3	6 TO 10 YEARS	3	11	16	5	35
4	11 TO 20 YEARS	5	12	14	5	36
5	>20 YEARS	1	7	13	14	35
GRAND TOTAL		13	39	44	28	124
1.5.		1	2	3	4	GRAND TOTAL
1	UPPER MANAGEMENT	2	9		2	13
2	MIDDLE MANAGEMENT	11	24	38	18	91
3	LOWER MANAGEMENT		3	5		8
4	JUNIOR OFFICERS		3	1	8	12
GRAND TOTAL		13	39	44	28	124

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 5.2.4.							
	GAS, CHEMICAL AND OIL	ALWAYS	SOMETIMES	NEVER	DO NOT		
	OPERATIONS				KNOW		
1.1.		1	2	3	4	GRAND TOTAL	
1	MALE	6	30	40	24	100	
2	FEMALE	5	10	6	3	24	
GRAND TOTAL		11	40	46	27	124	
1.2.		1	2	3	4	GRAND TOTAL	
1	BLACK	4	12	5	2	23	
2	ASIAN		5	8	2	15	
3	COLOURED	1	1	2	2	6	
4	WHITE	6	22	30	21	79	
5	OTHER			1		1	
GRAND TOTAL		11	40	46	27	124	
1.2		1	2	2	4	GRAND	
1.5.		1	2	3	4	TOTAL	
2	20 TO 29 YEARS		4	4	3	11	
3	30 TO 39 YEARS	6	16	17	4	43	
4	40 TO 49 YEARS	4	10	11	10	35	
5	50 TO 59 YEARS	1	10	14	7	32	
6	>59 YEARS				3	3	
GRAND TOTAL		11	40	46	27	124	
1.4.		1	2	3	4	GRAND	
2	1 TO 5 YEARS	4	9	3	2	18	
3	6 TO 10 YEARS	2	11	16	6	35	
4	11 TO 20 YEARS	4	12	14	6	36	
5	>20 YEARS	1	8	13	13	35	
GRAND TOTAL		11	40	46	27	124	
1.5.		1	2	3	4	GRAND TOTAL	
1	UPPER MANAGEMENT	2	8	1	2	13	
2	MIDDLE MANAGEMENT	9	25	38	19	91	
3	LOWER MANAGEMENT		4	4		8	
4	JUNIOR OFFICERS		3	3	6	12	
GRAND		11	40	46	27	124	

SURVEY Q	JESTIONNAIRE COUNT: PORT AL	DMINISTRATO	RS 5.2.5.			
	GENERAL CARGO HANDLING	ALWAYS	SOMETIME	NEVER	DO NOT	
	OPERATIONS		S		KNOW	
1.1.		1	2	3	4	GRAND TOTAL
1	MALE	7	32	39	22	100
2	FEMALE	6	8	4	6	24
GRAND TOTAL		13	40	43	28	124
1.2.		1	2	3	4	GRAND TOTAL
1	BLACK	5	11	3	4	23
2	ASIAN		4	9	2	15
3	COLOURED	1	2	1	2	6
4	WHITE	7	23	29	20	79
5	OTHER			1		1
GRAND TOTAL		13	40	43	28	124
1.3.		1	2	3	4	GRAND TOTAL
2	20 TO 29 YEARS	1	4	2	4	11
3	30 TO 39 YEARS	6	14	18	5	43
4	40 TO 49 YEARS	4	12	11	8	35
5	50 TO 59 YEARS	2	10	12	8	32
6	>59 YEARS				3	3
GRAND TOTAL		13	40	43	28	124
1.4.		1	2	3	4	GRAND TOTAL
2	1 TO 5 YEARS	4	7	2	5	18
3	6 TO 10 YEARS	3	11	16	5	35
4	11 TO 20 YEARS	5	13	13	5	36
5	>20 YEARS	1	9	12	13	35
GRAND TOTAL		13	40	43	28	124
1.5.		1	2	3	4	GRAND TOTAL
1	UPPER MANAGEMENT	2	7	2	2	13
2	MIDDLE MANAGEMENT	11	26	37	17	91
3	LOWER MANAGEMENT		5	3		8
4	JUNIOR OFFICERS		2	1	9	12
GRAND TOTAI		13	40	43	28	124

SURVEY Q	UESTIONNAIRE COUNT	: PORT ADMINI	ISTRATORS 5.2.6			
	RAILWAY SIDINGS	ALWAYS	SOMETIMES	NEVER	DO NOT KNOW	
1.1.		1	2	3	4	GRAND TOTAL
1	MALE	8	28	39	25	100
2	FEMALE	6	8	3	7	24
GRAND TOTAL		14	36	42	32	124
1.2.		1	2	3	4	GRAND TOTAL
1	BLACK	5	11	3	4	23
2	ASIAN		4	8	3	15
3	COLOURED	1	1	2	2	6
4	WHITE	8	20	28	23	79
5	OTHER			1		1
GRAND TOTAL		14	36	42	32	124
						0.5.4.1.5
1.3.		1	2	3	4	GRAND TOTAL
2	20 TO 29 YEARS	1	4	2	4	11
3	30 TO 39 YEARS	7	12	18	6	43
4	40 TO 49 YEARS	4	11	9	11	35
5	50 TO 59 YEARS	2	9	13	8	32
6	>59 YEARS				3	3
GRAND TOTAL		14	36	42	32	124
1.4.		1	2	3	4	GRAND TOTAL
2	1 TO 5 YEARS	4	7	2	5	18
3	6 TO 10 YEARS	4	11	14	6	35
4	11 TO 20 YEARS	5	10	14	7	36
5	>20 YEARS	1	8	12	14	35
GRAND TOTAL		14	36	42	32	124
1.5.		1	2	3	4	GRAND
1	UPPER MANAGEMENT	2	8	1	2	13
2	MIDDLE MANAGEMENT	11	24	35	21	91
3	LOWER MANAGEMENT	1	2	5		8
4	JUNIOR OFFICERS		2	1	9	12
GRAND TOTAL		14	36	42	32	124

CAN THE PORT OF	DURBAN'S VESS	FI TURNAROUND	TIME BE IMPROVED?
	DOI 10/1110 1200		

SURVEY Q	UESTIONNAIRE COUNT	: PORT ADMINISTR	ATORS 6.1.		
		YES	NO	DO NOT KNOW	
1.1.		1	2	3	GRAND TOTAL
1	MALE	72	21	7	100
2	FEMALE	10	11	3	24
GRAND		82	32	10	124
TOTAL					
1.2.		1	2	3	GRAND TOTAL
1	BLACK	10	12	1	23
2	ASIAN	12	2	1	15
3	COLOURED	4	2		6
4	WHITE	56	16	7	79
5	OTHER			1	1
GRAND		82	32	10	124
TOTAL					
13		1	2	3	GRAND TOTAL
2	20 TO 29 YEARS	7	4		11
3	30 TO 39 YEARS	26	14	3	43
4	40 TO 49 YEARS	22	10	3	35
5	50 TO 59 YEARS	25	4	3	32
6	>59 YEARS	2		1	3
GRAND		82	32	10	124
TOTAL					
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	7	10	1	18
3	6 TO 10 YEARS	24	10	1	35
4	11 TO 20 YEARS	25	9	2	36
5	>20 YEARS	26	3	6	35
GRAND TOTAL		82	32	10	124
1.5.		1	2	3	GRAND TOTAL
1	UPPER MANAGEMENT	8	5		13
2	MIDDLE MANAGEMENT	61	22	8	91
3	LOWER MANAGEMENT	6	2		8
4	JUNIOR OFFICERS	7	3	2	12
GRAND TOTAL		82	32	10	124
SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 6.2.1.					
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	CARGO HANDLING	NO	YES		
1.1.		0	1	GRAND TOTAL	
1	MALE	37	63	100	
2	FEMALE	14	10	24	
GRAND TOTAL		51	73	124	
1.2.		0	1	GRAND TOTAL	
1	BLACK	13	10	23	
2	ASIAN	4	11	15	
3	COLOURED	3	3	6	
4	WHITE	30	49	79	
5	OTHER	1		1	
GRAND TOTAL		51	73	124	
1.0			1		
1.3.		5	1		
2	20 TO 29 TEARS	5	0	11	
3		12	21	43	
4	40 TO 49 TEARS	13	22	30	
5	SO VEADS		21	32	
CRAND	>33 TEANS	51	72	3	
TOTAL		51	75	124	
1.4.		0	1	GRAND TOTAL	
2	1 TO 5 YEARS	12	6	18	
3	6 TO 10 YEARS	18	17	35	
4	11 TO 20 YEARS	10	26	36	
5	>20 YEARS	11	24	35	
GRAND TOTAL		51	73	124	
1.5		0	1		
1.0.		6	7		
1		0	7	13	
2		5/	24	31	
3		5	3	0	
		3 E1	9 70	12	
TOTAL		10	/3	124	

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 6.2.2.							
	DRY-DOCK AND SHIP REPAIR	NO	YES				
1.1.		0	1	GRAND TOTAL			
1	MALE	58	42	100			
2	FEMALE	18	6	24			
GRAND TOTAL		76	48	124			
1.2.		0	1	GRAND TOTAL			
1	BLACK	17	6	23			
2	ASIAN	9	6	15			
3	COLOURED	2	4	6			
4	WHITE	47	32	79			
5	OTHER	1		1			
GRAND TOTAL		76	48	124			
1.3.		0	1	GRAND TOTAL			
2	20 TO 29 YEARS	7	4	11			
3	30 TO 39 YEARS	28	15	43			
4	40 TO 49 YEARS	24	11	35			
5	50 TO 59 YEARS	15	17	32			
6	>59 YEARS	2	1	3			
GRAND TOTAL		76	48	124			
1.4.		0	1	GRAND TOTAL			
2	1 TO 5 YEARS	14	4	18			
3	6 TO 10 YEARS	23	12	35			
4	11 TO 20 YEARS	19	17	36			
5	>20 YEARS	20	15	35			
GRAND TOTAL		76	48	124			
1.5.		0	1	GRAND TOTAL			
1	UPPER MANAGEMENT	8	5	13			
2	MIDDLE MANAGEMENT	53	38	91			
3	LOWER MANAGEMENT	7	1	8			
4	JUNIOR OFFICERS	8	4	12			
GRAND TOTAL		76	48	124			

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 6.2.3.						
	EMERGENCY SERVICES	NO	YES			
1.1.		0	1	GRAND TOTAL		
1	MALE	84	16	100		
2	FEMALE	22	2	24		
GRAND TOTAL		106	18	124		
1.2.		0	1	GRAND TOTAL		
1	BLACK	21	2	23		
2	ASIAN	11	4	15		
3	COLOURED	5	1	6		
4	WHITE	68	11	79		
5	OTHER	1		1		
GRAND TOTAL		106	18	124		
		-				
1.3.		0	1	GRAND TOTAL		
2	20 TO 29 YEARS	10	1	11		
3	30 TO 39 YEARS	36	7	43		
4	40 TO 49 YEARS	30	5	35		
5	50 TO 59 YEARS	27	5	32		
6	>59 YEARS	3		3		
GRAND TOTAL		106	18	124		
1.4.		0	1	GRAND TOTAL		
2	1 TO 5 YEARS	18		18		
3	6 TO 10 YEARS	30	5	35		
4	11 TO 20 YEARS	28	8	36		
5	>20 YEARS	30	5	35		
GRAND TOTAL		106	18	124		
1.5.		0	1	GRAND TOTAL		
1		12	1	13		
2		75	16	91		
3	LOWER MANAGEMENT	8		8		
4	JUNIOR OFFICERS	11	1	12		
GRAND TOTAL		106	18	124		

SURVEY QU	SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 6.2.4.						
	MARINE OPERATIONS	NO	YES	UNCERTAIN			
1.1.		0	1	3	GRAND TOTAL		
1	MALE	34	66		100		
2	FEMALE	16	7	1	24		
GRAND TOTAL		50	73	1	124		
1.2.		0	1	3	GRAND TOTAL		
1	BLACK	15	7	1	23		
2	ASIAN	6	9		15		
3	COLOURED	2	4		6		
4	WHITE	26	53		79		
5	OTHER	1			1		
GRAND TOTAL		50	73	1	124		
		-		-			
1.3.		0	1	3	GRAND TOTAL		
2	20 TO 29 YEARS	5	6		11		
3	30 TO 39 YEARS	20	22	1	43		
4	40 TO 49 YEARS	16	19		35		
5	50 TO 59 YEARS	9	23		32		
6	>59 YEARS		3		3		
GRAND TOTAL		50	73	1	124		
1.4.		0	1	3	GRAND TOTAL		
2	1 TO 5 YEARS	12	5	1	18		
3	6 TO 10 YEARS	14	21		35		
4	11 TO 20 YEARS	15	21		36		
5	>20 YEARS	9	26		35		
GRAND TOTAL		50	73	1	124		
1.5.		0	1	3	GRAND TOTAL		
1		7	5	1	13		
2	MIDDLE MANAGEMENT	37	54		91		
3	LOWER MANAGEMENT	2	6		8		
4	JUNIOR OFFICERS	4	8		12		
GRAND TOTAL		50	73	1	124		

ARE IMPROVEMENTS IN THE FOLLOWING BUDGETED TO BE ADDRESSED WITHIN THE NEXT 3 TO 5 YEAR	S?
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		SOMETIMES	VES	NO		
	CARGO HANDEING FACIEITIES	SOMETIMES	TES	NO		
					KNOW	
1.1.		0	1	2	3	GRAND TOTAL
1	MALE	3	42	2	53	100
2	FEMALE		7	1	16	24
GRAND		3	49	3	69	124
TOTAL						
1.0		0	1	0		
1.2.		0	1	2	3	TOTAL
1	BLACK		6	2	15	23
2	ASIAN		8		7	15
3	COLOURED		2		4	6
4	WHITE	3	33	1	42	79
5	OTHER				1	1
GRAND		3	49	3	69	124
TOTAL						
1.0		0	4	0		
1.3.		0	1	2	3	TOTAL
2	20 TO 29 YEARS		4	2	5	11
3	30 TO 39 YEARS		12		31	43
4	40 TO 49 YEARS	1	17	1	16	35
5	50 TO 59 YEARS	2	15		15	32
6	>59 YEARS		1		2	3
GRAND		3	49	3	69	124
TOTAL						
1.4		0	1	2	2	GRAND
1.4.		0	1	2	5	TOTAL
2	1 TO 5 YEARS		5	2	11	18
3	6 TO 10 YEARS		11		24	35
4	11 TO 20 YEARS	1	18	1	16	36
5	>20 YEARS	2	15		18	35
GRAND		3	49	3	69	124
TOTAL						
15		0	1	2	3	GRAND
1.0.		J		-		TOTAL
1	UPPER MANAGEMENT		8		5	13
2	MIDDLE MANAGEMENT	3	38	2	48	91
3	LOWER MANAGEMENT		2		6	8
4	JUNIOR OFFICERS		1	1	10	12
GRAND		3	49	3	69	124
TOTAL						

SURVEY C	UESTIONNAIRE COUNT	: PORT ADMINIS	TRATORS 6	5.3.2.		
	DRY-DOCK AND SHIP REPAIR	SOMETIMES	YES	NO	DO NOT KNOW	
1.1.		0	1	2	3	GRAND TOTAI
1	MALE	1	16	7	76	100
2	FEMALE		4		20	24
GRAND TOTAL		1	20	7	96	124
1.2.		0	1	2	3	GRAND TOTAL
1	BLACK	1	3	2	17	23
2	ASIAN		3	1	11	15
3	COLOURED		2		4	6
4	WHITE		12	4	63	79
5	OTHER				1	1
GRAND TOTAL		1	20	7	96	124
1.3.		0	1	2	3	GRAND TOTAL
2	20 TO 29 YEARS		3	1	7	11
3	30 TO 39 YEARS	1	4	2	36	43
4	40 TO 49 YEARS		5	1	29	35
5	50 TO 59 YEARS		8	3	21	32
6	>59 YEARS				3	3
GRAND TOTAL		1	20	7	96	124
1.4.		0	1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	1	2	2	13	18
3	6 TO 10 YEARS		5		30	35
4	11 TO 20 YEARS		7	2	27	36
5	>20 YEARS		6	3	26	35
GRAND TOTAL		1	20	7	96	124
1.5.		0	1	2	3	GRAND TOTAL
1	UPPER MANAGEMENT		3	1	9	13
2	MIDDLE MANAGEMENT	1	17	5	68	91
3	LOWER MANAGEMENT			1	7	8
4	JUNIOR OFFICERS	1			12	12
GRAND TOTAL		1	20	7	96	124

ARE IMPROVEMENTS IN THE FOLLOWING BUDGETED TO BE ADDRESSED WITHIN THE NEXT 3 TO 5 YEARS?

SURVEY QU	JESTIONNAIRE COUNT: PORT A	DMINISTRATOR	S 6.3.3.			
	EMERGENCY FACILITIES	SOMETIMES	YES	NO	DO NOT KNOW	
1.1.		0	1	2	3	GRAND TOTAI
1	MALE	2	11	9	78	100
2	FEMALE	2	2		20	24
GRAND TOTAL		4	13	9	98	124
1.2.		0	1	2	3	GRAND
1	BLACK	2	2	2	17	23
2	ASIAN		1	1	13	15
3	COLOURED		1		5	6
4	WHITE	2	9	6	62	79
5	OTHER				1	1
GRAND TOTAL		4	13	9	98	124
1.3.		0	1	2	3	GRAND TOTAL
2	20 TO 29 YEARS	1	2	1	7	11
3	30 TO 39 YEARS	1	1	2	39	43
4	40 TO 49 YEARS	2	3	1	29	35
5	50 TO 59 YEARS		7	5	20	32
6	>59 YEARS				3	3
GRAND TOTAL		4	13	9	98	124
1.4.		0	1	2	3	GRAND
2	1 TO 5 YEARS	2	1	2	13	18
3	6 TO 10 YEARS		2		33	35
4	11 TO 20 YEARS	1	3	3	29	36
5	>20 YEARS	1	7	4	23	35
GRAND TOTAL		4	13	9	98	124
1.5.		0	1	2	3	GRAND TOTAL
1		1	1	1	10	13
2	MIDDLE MANAGEMENT	3	10	6	72	91
3	LOWER MANAGEMENT			2	6	8
4	JUNIOR OFFICERS		2		10	12
GRAND TOTAL		4	13	9	98	124

ARE IMPROVEMENTS IN THE FOLLOWING BUDGETED TO BE ADDRESSED WITHIN THE NEXT 3 TO 5 YEARS?

SURVEY G	UESTIONNAIRE COUNT: PO	RT ADMINIST	RATORS 6.3.4.		
	MARINE OPERATIONS	YES	NO	DO NOT KNOW	
1.1.		1	2	3	GRAND TOTAL
1	MALE	38	4	58	100
2	FEMALE	6	2	16	24
GRAND TOTAL		44	6	74	124
			-		
1.2.		1	2	3	GRAND TOTAL
1	BLACK	5	3	15	23
2	ASIAN	5	1	9	15
3	COLOURED	4		2	6
4	WHITE	30	2	47	79
5	OTHER			1	1
GRAND TOTAL		44	6	74	124
1.3.		1	2	3	GRAND TOTAL
2	20 TO 29 YEARS	5	1	5	11
3	30 TO 39 YEARS	10	3	30	43
4	40 TO 49 YEARS	10		25	35
5	50 TO 59 YEARS	17	2	13	32
6	>59 YEARS	2		1	3
GRAND TOTAL		44	6	74	124
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	5	2	11	18
3	6 TO 10 YEARS	10	2	23	35
4	11 TO 20 YEARS	12	1	23	36
5	>20 YEARS	17	1	17	35
GRAND TOTAL		44	6	74	124
1.5.		1	2	3	GRAND TOTAL
1		3	2	8	13
2	MIDDLE MANAGEMENT	32	4	55	91
3	LOWER MANAGEMENT	5		3	8
4	JUNIOR OFFICERS	4		8	12
GRAND TOTAL		44	6	74	124

ARE IMPROVEMENTS IN THE FOLLOWING BUDGETED TO BE ADDRESSED WITHIN THE NEXT 3 TO 5 YEARS?

SURVEY Q	JESTIONNAIRE COUNT:	PORT ADMINIST	RATORS 6.4.1.			1
		SHORTER	ABOUT THE	LONGER	DO NOT	
	AVAILADILITT	DELAYS	SAME	DELAYS	KNOW	
1.1.		1	2	3	4	GRAND TOTAL
1	MALE	8	52	24	16	100
2	FEMALE	11	8	4	1	24
GRAND TOTAL		19	60	28	17	124
1.2.		1	2	3	4	GRAND TOTAL
1	BLACK	10	11	2		23
2	ASIAN	1	9	3	2	15
3	COLOURED	1	1	2	2	6
4	WHITE	7	38	21	13	79
5	OTHER		1			1
GRAND TOTAL		19	60	28	17	124
1.3.		1	2	3	4	GRAND TOTAL
2	20 TO 29 YEARS	3	6	1	1	11
3	30 TO 39 YEARS	9	20	10	4	43
4	40 TO 49 YEARS	6	12	12	5	35
5	50 TO 59 YEARS		21	5	6	32
6	>59 YEARS	1	1		1	3
GRAND TOTAL		19	60	28	17	124
1.4.		1	2	3	4	GRAND TOTAL
2	1 TO 5 YEARS	9	7	1	1	18
3	6 TO 10 YEARS	3	19	8	5	35
4	11 TO 20 YEARS	4	17	11	4	36
5	>20 YEARS	3	17	8	7	35
GRAND TOTAL		19	60	28	17	124
1.5.		1	2	3	4	GRAND TOTAL
1	UPPER MANAGEMENT	6	6		1	13
2	MIDDLE MANAGEMENT	9	47	23	12	91
3	LOWER MANAGEMENT	1	4	3		8
4	JUNIOR OFFICERS	3	3	2	4	12
GRAND TOTAL		19	60	28	17	124

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 6.4.2.								
	INDUSTRIAL	SHORTER	ABOUT THE	LONGER	DO NOT			
	ACTION	DELAYS	SAME	DELAYS	KNOW			
1.1.		1	2	3	4	GRAND		
1	MALE	17	62	11	10	100		
2	FEMALE	12	7	1	4	24		
GRAND		29	69	12	14	124		
TOTAL								
1.2.		1	2	3	4	GRAND TOTAL		
1	BLACK	8	11	1	3	23		
2	ASIAN	4	8	1	2	15		
3	COLOURED	1	2	1	2	6		
4	WHITE	16	47	9	7	79		
5	OTHER		1			1		
GRAND TOTAL		29	69	12	14	124		
1.3.		1	2	3	4	GRAND TOTAL		
2	20 TO 29 YEARS	2	6		3	11		
3	30 TO 39 YEARS	14	22	3	4	43		
4	40 TO 49 YEARS	10	18	3	4	35		
5	50 TO 59 YEARS	2	22	6	2	32		
6	>59 YEARS	1	1		1	3		
GRAND TOTAL		29	69	12	14	124		
1.4.		1	2	3	4	GRAND TOTAL		
2	1 TO 5 YEARS	8	7		3	18		
3	6 TO 10 YEARS	6	24	1	4	35		
4	11 TO 20 YEARS	10	20	3	3	36		
5	>20 YEARS	5	18	8	4	35		
GRAND TOTAL		29	69	12	14	124		
1.5.		1	2	3	4	GRAND TOTAL		
1	UPPER MANAGEMENT	8	4	1		13		
2	MIDDLE MANAGEMENT	19	55	11	6	91		
3	LOWER MANAGEMENT	1	6		1	8		
4	JUNIOR OFFICERS	1	4		7	12		
GRAND TOTAL		29	69	12	14	124		

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 6.4.3.							
	MARINE SERVICE	SHORTER	ABOUT THE	LONGER	DO NOT		
		DELAYS	SAME	DELAYS	KNOW		
1.1.		1	2	3	4	GRAND TOTAI	
1	MALE	11	52	28	9	100	
2	FEMALE	9	8	4	3	24	
GRAND TOTAL		20	60	32	12	124	
1.2.		1	2	3	4	GRAND TOTAL	
1	BLACK	7	10	4	2	23	
2	ASIAN	1	8	4	2	15	
3	COLOURED	2	2	1	1	6	
4	WHITE	10	39	23	7	79	
5	OTHER		1			1	
GRAND TOTAL		20	60	32	12	124	
1.3.		1	2	3	4	GRAND TOTAL	
2	20 TO 29 YEARS	1	6	2	2	11	
3	30 TO 39 YEARS	10	17	12	4	43	
4	40 TO 49 YEARS	6	16	11	2	35	
5	50 TO 59 YEARS	2	20	6	4	32	
6	>59 YEARS	1	1	1		3	
GRAND TOTAL		20	60	32	12	124	
1.4.		1	2	3	4	GRAND	
2	1 TO 5 YEARS	7	6	3	2	18	
3	6 TO 10 YEARS	4	15	12	4	35	
4	11 TO 20 YEARS	5	22	7	2	36	
5	>20 YEARS	4	17	10	4	35	
GRAND TOTAL		20	60	32	12	124	
1.5.		1	2	3	4	GRAND TOTAL	
1	UPPER MANAGEMENT	6	4	2	1	13	
2	MIDDLE MANAGEMENT	13	45	26	7	91	
3	LOWER MANAGEMENT	1	5	2		8	
4	JUNIOR OFFICERS		6	2	4	12	
GRAND TOTAL		20	60	32	12	124	

SURVEY QUE	STIONNAIRE COUNT:	PORT ADMINIST	RATORS 6.4.4.			
	PILOTAGE	SHORTER	ABOUT THE	LONGER	DO NOT	
		DELAYS	SAME	DELAYS	KNOW	
1.1.		1	2	3	4	GRAND
1	MALE	11	55	27	7	100
2	FEMALE	10	7	5	2	24
GRAND		21	62	32	9	124
TOTAL						
1.2.		1	2	3	4	GRAND TOTAI
1	BLACK	8	10	4	1	23
2	ASIAN	1	8	4	2	15
3	COLOURED	2	2	1	1	6
4	WHITE	10	41	23	5	79
5	OTHER		1			1
GRAND TOTAL		21	62	32	9	124
1.3.		1	2	3	4	GRAND TOTAL
2	20 TO 29 YEARS	1	6	2	2	11
3	30 TO 39 YEARS	10	18	12	3	43
4	40 TO 49 YEARS	6	17	10	2	35
5	50 TO 59 YEARS	3	20	7	2	32
6	>59 YEARS	1	1	1		3
GRAND TOTAL		21	62	32	9	124
1.4.		1	2	3	4	GRAND TOTAL
2	1 TO 5 YEARS	8	6	3	1	18
3	6 TO 10 YEARS	3	17	11	4	35
4	11 TO 20 YEARS	6	21	7	2	36
5	>20 YEARS	4	18	11	2	35
GRAND TOTAL		21	62	32	9	124
4.5						ODAND
1.5.		1	2	3	4	GRAND TOTAL
1	UPPER MANAGEMENT	6	4	2	1	13
2	MIDDLE MANAGEMENT	12	47	27	5	91
3	LOWER MANAGEMENT	1	6	1		8
4	JUNIOR OFFICERS	2	5	2	3	12
GRAND TOTAL		21	62	32	9	124

SURVEY QUE	STIONNAIRE COUNT:	PORT ADMINIST	RATORS 6.4.5.			
	POOR WEATHER	SHORTER	ABOUT THE	LONGER	DO NOT	
		DELAYS	SAME	DELAYS	KNOW	
1.1.		1	2	3	4	GRAND TOTAI
1	MALE	10	77	3	10	100
2	FEMALE	14	5	3	2	24
GRAND		24	82	6	12	124
TOTAL						
1.2.		1	2	3	4	GRAND TOTAL
1	BLACK	10	10	2	1	23
2	ASIAN	1	13		1	15
3	COLOURED		2	1	3	6
4	WHITE	13	56	3	7	79
5	OTHER		1			1
GRAND TOTAL		24	82	6	12	124
1.3.		1	2	3	4	GRAND TOTAL
2	20 TO 29 YEARS	4	4	1	2	11
3	30 TO 39 YEARS	9	29	2	3	43
4	40 TO 49 YEARS	6	22	3	4	35
5	50 TO 59 YEARS	5	25		2	32
6	>59 YEARS		2		1	3
GRAND TOTAL		24	82	6	12	124
1.4.		1	2	3	4	GRAND TOTAL
2	1 TO 5 YEARS	8	7	2	1	18
3	6 TO 10 YEARS	5	26		4	35
4	11 TO 20 YEARS	5	27	1	3	36
5	>20 YEARS	6	22	3	4	35
GRAND TOTAL		24	82	6	12	124
1.5.		1	2	3	4	GRAND TOTAL
1	UPPER MANAGEMENT	5	7		1	13
2	MIDDLE MANAGEMENT	16	66	4	5	91
3	LOWER MANAGEMENT	2	5		1	8
4	JUNIOR OFFICERS	1	4	2	5	12
GRAND TOTAL		24	82	6	12	124

SURVEY Q	JESTIONNAIRE COUNT: P	ORT ADMINISTF	RATORS 6.5.1.			
	CARGO AVAILABILITY	LESS OFTEN	SAME	MORE OFTEN	DO NOT KNOW	
1.1.		1	2	3	4	GRAND TOTAL
1	MALE	9	57	20	14	100
2	FEMALE	10	8	4	2	24
GRAND TOTAL		19	65	24	16	124
1.2.		1	2	3	4	GRAND
1	BLACK	10	10	2	1	23
2	ASIAN	1	8	4	2	15
3	COLOURED	2	3		1	6
4	WHITE	6	43	18	12	79
5	OTHER		1			1
GRAND TOTAL		19	65	24	16	124
1.3.		1	2	3	4	GRAND TOTAL
2	20 TO 29 YEARS	3	5	1	2	11
3	30 TO 39 YEARS	9	21	10	3	43
4	40 TO 49 YEARS	6	17	7	5	35
5	50 TO 59 YEARS	1	20	6	5	32
6	>59 YEARS		2		1	3
GRAND TOTAL		19	65	24	16	124
			-			
1.4.		1	2	3	4	GRAND TOTAL
2	1 TO 5 YEARS	9	7		2	18
3	6 TO 10 YEARS	3	20	8	4	35
4	11 TO 20 YEARS	3	20	10	3	36
5	>20 YEARS	4	18	6	7	35
GRAND TOTAL		19	65	24	16	124
1.5.		1	2	3	4	GRAND
		-		-	-	TOTAL
1	UPPER MANAGEMENT	5	5		3	13
2	MIDDLE MANAGEMENT	10	50	22	9	91
3	LOWER MANAGEMENT	1	5	2		8
4	JUNIOR OFFICERS	3	5		4	12
GRAND TOTAL		19	65	24	16	124

SURVEY Q	UESTIONNAIRE COUNT: P	ORT ADMINISTRA	ATORS 6.5.2.			
	INDUSTRIAL ACTION	LESS OFTEN	SAME	MORE OFTEN	DO NOT KNOW	
1.1.		1	2	3	4	GRAND TOTAL
1	MALE	24	54	11	11	100
2	FEMALE	12	7	1	4	24
GRAND TOTAL		36	61	12	15	124
1.2.		1	2	3	4	GRAND TOTAL
1	BLACK	10	10		3	23
2	ASIAN	4	6	3	2	15
3	COLOURED	4	1		1	6
4	WHITE	18	43	9	9	79
5	OTHER		1			1
GRAND TOTAL		36	61	12	15	124
1.3.		1	2	3	4	GRAND TOTAL
2	20 TO 29 YEARS	4	3		4	11
3	30 TO 39 YEARS	17	20	4	2	43
4	40 TO 49 YEARS	11	17	1	6	35
5	50 TO 59 YEARS	4	19	7	2	32
6	>59 YEARS		2		1	3
GRAND TOTAL		36	61	12	15	124
14		1	2	3	4	GRAND
		•	-	•	•	TOTAL
2	1 TO 5 YEARS	8	7		3	18
3	6 TO 10 YEARS	11	20	1	3	35
4	11 TO 20 YEARS	10	18	4	4	36
5	>20 YEARS	7	16	7	5	35
GRAND TOTAL		36	61	12	15	124
1.5.		1	2	3	4	GRAND
1	UPPER MANAGEMENT	6	4	1	2	13
2	MIDDLE MANAGEMENT	24	50	11	6	91
3	LOWER MANAGEMENT	3	4		1	8
4	JUNIOR OFFICERS	3	3		6	12
GRAND TOTAL		36	61	12	15	124

SURVEY Q	UESTIONNAIRE COUNT	: PORT ADMINIST	RATORS 6.5.3.			
	MARINE SERVICE	LESS OFTEN	SAME	MORE OFTEN	DO NOT KNOW	
1.1.		1	2	3	4	GRAND TOTAL
1	MALE	14	55	23	8	100
2	FEMALE	8	10	4	2	24
GRAND TOTAL		22	65	27	10	124
1.0		1	0	0		
1.2.		1	2	3	4	TOTAL
1	BLACK	8	11	3	1	23
2	ASIAN	2	7	4	2	15
3	COLOURED	4	2			6
4	WHITE	8	44	20	7	79
5	OTHER		1			1
GRAND TOTAL		22	65	27	10	124
1.0						
1.3.		1	2	3	4	GRAND TOTAL
2	20 TO 29 YEARS	1	6	2	2	11
3	30 TO 39 YEARS	12	19	10	2	43
4	40 TO 49 YEARS	8	17	6	4	35
5	50 TO 59 YEARS	1	21	8	2	32
6	>59 YEARS		2	1		3
GRAND TOTAL		22	65	27	10	124
						0.5.4.1.5
1.4.		1	2	3	4	GRAND TOTAL
2	1 TO 5 YEARS	8	7	2	1	18
3	6 TO 10 YEARS	4	19	9	3	35
4	11 TO 20 YEARS	6	19	8	3	36
5	>20 YEARS	4	20	8	3	35
GRAND TOTAL		22	65	27	10	124
4.5					4	
1.5.		1	2	3	4	TOTAL
1	UPPER MANAGEMENT	6	3	2	2	13
2	MIDDLE MANAGEMENT	13	49	23	6	91
3	LOWER MANAGEMENT	1	6	1		8
4	JUNIOR OFFICERS	2	7	1	2	12
GRAND TOTAL		22	65	27	10	124

SURVEY Q	JESTIONNAIRE COUNT	: PORT ADMINIST	RATORS 6.5.4.			
	PILOTAGE	LESS OFTEN	SAME	MORE OFTEN	DO NOT KNOW	
1.1.		1	2	3	4	GRAND TOTAL
1	MALE	15	52	26	7	100
2	FEMALE	7	9	6	2	24
GRAND TOTAL		22	61	32	9	124
1.2.		1	2	3	4	GRAND TOTAL
1	BLACK	8	9	5	1	23
2	ASIAN	3	6	4	2	15
3	COLOURED	3	3			6
4	WHITE	8	42	23	6	79
5	OTHER		1			1
GRAND TOTAL		22	61	32	9	124
						0.0.4.1.0
1.3.		1	2	3	4	GRAND
2	20 TO 29 YEARS	2	3	4	2	11
3	30 TO 39 YEARS	11	17	13	2	43
4	40 TO 49 YEARS	8	17	6	4	35
5	50 TO 59 YEARS	1	23	7	1	32
6	>59 YEARS		1	2		3
GRAND TOTAL		22	61	32	9	124
1.4.		1	2	3	4	GRAND TOTAL
2	1 TO 5 YEARS	7	7	3	1	18
3	6 TO 10 YEARS	5	16	11	3	35
4	11 TO 20 YEARS	6	19	8	3	36
5	>20 YEARS	4	19	10	2	35
GRAND TOTAL		22	61	32	9	124
15		1	0	0		
1.5.		I	2	3	4	TOTAL
1	UPPER MANAGEMENT	6	3	2	2	13
2	MIDDLE MANAGEMENT	15	47	24	5	91
3	LOWER MANAGEMENT	1	5	2		8
4	JUNIOR OFFICERS		6	4	2	12
GRAND TOTAL		22	61	32	9	124

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 6.5.5.						
	POOR WEATHER	LESS OFTEN	SAME	MORE OFTEN	DO NOT KNOW	
1.1.		1	2	3	4	GRAND TOTAL
1	MALE	15	73	1	11	100
2	FEMALE	12	9	1	2	24
GRAND TOTAL		27	82	2	13	124
1.0		1	0	2	4	
1.2.			2	3	4	TOTAL
1	BLACK	10	12		1	23
2	ASIAN	3	11		1	15
3	COLOURED	1	3		2	6
4	WHITE	13	55	2	9	79
5	OTHER		1			1
GRAND TOTAL		27	82	2	13	124
1.3.		1	2	3	4	GRAND TOTAL
2	20 TO 29 YEARS	3	6		2	11
3	30 TO 39 YEARS	11	29	1	2	43
4	40 TO 49 YEARS	8	20	1	6	35
5	50 TO 59 YEARS	5	24		3	32
6	>59 YEARS		3			3
GRAND TOTAL		27	82	2	13	124
1.4.		1	2	3	4	GRAND TOTAL
2	1 TO 5 YEARS	9	8		1	18
3	6 TO 10 YEARS	3	29		3	35
4	11 TO 20 YEARS	7	24	1	4	36
5	>20 YEARS	8	21	1	5	35
GRAND TOTAL		27	82	2	13	124
1.5.		1	2	3	4	GRAND TOTAL
1	MANAGEMENT	5	6		2	13
2	MIDDLE MANAGEMENT	18	66	2	5	91
3	LOWER MANAGEMENT	1	5		2	8
4	JUNIOR OFFICERS	3	5		4	12
GRAND TOTAL		27	82	2	13	124

SINCE 2002, THE TRANSPARENCY OF DURBAN'S PORT OPERATIONS HAS:

SURVEY C	QUESTIONNAIRE COUN	T: PORT ADMINISTE	RATORS 7.1.		
		INCREASED	STAYED THE SAME	DECREASED	
1.1.		1	2	3	GRAND TOTAL
1	MALE	16	45	39	100
2	FEMALE	13	7	4	24
GRAND TOTAL		29	52	43	124
1.2.		1	2	3	GRAND
1	BLACK	11	11	1	23
2	ASIAN	3	7	5	15
3		3	1	2	6
4	WHITE	12	32	35	79
5	OTHER	12	1		1
GRAND TOTAL		29	52	43	124
1.3.		1	2	3	GRAND TOTAL
2	20 TO 29 YEARS	3	6	2	11
3	30 TO 39 YEARS	15	16	12	43
4	40 TO 49 YEARS	7	12	16	35
5	50 TO 59 YEARS	4	15	13	32
6	>59 YEARS		3		3
GRAND TOTAL		29	52	43	124
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	11	6	1	18
3	6 TO 10 YEARS	6	16	13	35
4	11 TO 20 YEARS	6	16	14	36
5	>20 YEARS	6	14	15	35
GRAND TOTAL		29	52	43	124
1.5.		1	2	3	GRAND
1	UPPER MANAGEMENT	11	2		13
2	MIDDLE MANAGEMENT	18	38	35	91
3	LOWER MANAGEMENT		3	5	8
4	JUNIOR OFFICERS		9	3	12
GRAND TOTAL		29	52	43	124

DOES THE PORT OF DURBAN'S INFRASTRUCTURE MAKE IT MORE COMPETITIVE THAN OTHER PORTS ALONG THE EAST COAST OF SOUTHERN AFRICA?

SURVEY Q	JESTIONNAIRE COUNT	: PORT ADMINIS	TRATORS 8.1.		
		YES	NO	DO NOT KNOW	
1.1.		1	2	3	GRAND TOTAL
1	MALE	46	43	11	100
2	FEMALE	14	7	3	24
GRAND TOTAL		60	50	14	124
1.2.		1	2	3	GRAND TOTAL
1	BLACK	16	5	2	23
2	ASIAN	8	7		15
3	COLOURED	5	1		6
4	WHITE	31	37	11	79
5	OTHER			1	1
GRAND TOTAL		60	50	14	124
1.3.		1	2	3	GRAND TOTAL
2	20 TO 29 YEARS	7	3	1	11
3	30 TO 39 YEARS	22	18	3	43
4	40 TO 49 YEARS	18	14	3	35
5	50 TO 59 YEARS	12	15	5	32
6	>59 YEARS	1		2	3
GRAND TOTAL		60	50	14	124
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	13	3	2	18
3	6 TO 10 YEARS	16	16	3	35
4	11 TO 20 YEARS	16	20		36
5	>20 YEARS	15	11	9	35
GRAND TOTAL		60	50	14	124
1.5.		1	2	3	GRAND TOTAL
1	UPPER MANAGEMENT	12	1		13
2	MIDDLE MANAGEMENT	37	44	10	91
3	LOWER MANAGEMENT	4	2	2	8
4	JUNIOR OFFICERS	7	3	2	12
GRAND TOTAL		60	50	14	124

	BERTHING ARRANGEMENTS	NO	SUBSTANTIALLY	A LITTLE	DO NOT KNOW	
1.1.		0	1	2	3	GRAND TOTAI
1	MALE	25	9	32	34	100
2	FEMALE	5		5	14	24
GRAND TOTAL		30	9	37	48	124
						0.5.4.1.5
1.2.		0	1	2	3	TOTAL
1	BLACK	7		4	12	23
2	ASIAN	2		6	7	15
3	COLOURED	3	1	1	1	6
4	WHITE	18	8	26	27	79
5	OTHER				1	1
GRAND TOTAL		30	9	37	48	124
1.3.		0	1	2	3	GRAND TOTAL
2	20 TO 29 YEARS	4		1	6	11
3	30 TO 39 YEARS	7	2	16	18	43
4	40 TO 49 YEARS	9	4	9	13	35
5	50 TO 59 YEARS	8	3	10	11	32
6	>59 YEARS	2		1		3
GRAND TOTAL		30	9	37	48	124
1.4.		0	1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	6		2	10	18
3	6 TO 10 YEARS	5	1	14	15	35
4	11 TO 20 YEARS	5	3	14	14	36
5	>20 YEARS	14	5	7	9	35
GRAND TOTAL		30	9	37	48	124
				-	-	
1.5.		0	1	2	3	GRAND TOTAL
1	UPPER MANAGEMENT	6		1	6	13
2	MIDDLE MANAGEMENT	19	6	33	33	91
3	LOWER MANAGEMENT	1		1	6	8
4	JUNIOR OFFICERS	4	3	2	3	12
GRAND TOTAL		30	9	37	48	124

	CARGO HANDLING FACILITIES	NO	SUBSTANTIALLY	A LITTLE	DO NOT KNOW	
1.1.		0	1	2	3	GRAND TOTAI
1	MALE	25	23	23	29	100
2	FEMALE	5	5	1	13	24
GRAND TOTAL		30	28	24	42	124
1.2.		0	1	2	3	GRAND TOTAL
1	BLACK	7	2	3	11	23
2	ASIAN	2	5	2	6	15
3	COLOURED	3	1	1	1	6
4	WHITE	18	20	18	23	79
5	OTHER				1	1
GRAND TOTAL		30	28	24	42	124
1.3.		0	1	2	3	GRAND TOTAL
2	20 TO 29 YEARS	4	2		5	11
3	30 TO 39 YEARS	7	8	12	16	43
4	40 TO 49 YEARS	9	10	4	12	35
5	50 TO 59 YEARS	8	8	7	9	32
6	>59 YEARS	2		1		3
GRAND TOTAL		30	28	24	42	124
1.4.		0	1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	6	1	2	9	18
3	6 TO 10 YEARS	5	5	12	13	35
4	11 TO 20 YEARS	5	13	7	11	36
5	>20 YEARS	14	9	3	9	35
GRAND TOTAL		30	28	24	42	124
1.5.		0	1	2	3	GRAND TOTAL
1	UPPER MANAGEMENT	6		1	6	13
2	MIDDLE MANAGEMENT	19	23	20	29	91
3	LOWER MANAGEMENT	1	1	1	5	8
4	JUNIOR OFFICERS	4	4	2	2	12
GRAND TOTAL		30	28	24	42	124

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 8.2.3.						
	DRY-DOCK AND SHIP REPAIR	NO	SUBSTANTIALLY	ALITTLE	DO NOT KNOW	
1.1.		0	1	2	3	GRAND TOTAL
1	MALE	26	20	22	32	100
2	FEMALE	5	3	3	13	24
GRAND		31	23	25	45	124
TOTAL						
1.2.		0	1	2	3	GRAND TOTAL
1	BLACK	7	1	4	11	23
2	ASIAN	2	3	3	7	15
3	COLOURED	3	1	1	1	6
4	WHITE	19	18	17	25	79
5	OTHER				1	1
GRAND TOTAL		31	23	25	45	124
1.3.		0	1	2	3	GRAND TOTAL
2	20 TO 29 YEARS	4	1	1	5	11
3	30 TO 39 YEARS	7	8	10	18	43
4	40 TO 49 YEARS	10	6	6	13	35
5	50 TO 59 YEARS	8	8	7	9	32
6	>59 YEARS	2		1		3
GRAND TOTAL		31	23	25	45	124
1.4.		0	1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	6		3	9	18
3	6 TO 10 YEARS	5	5	10	15	35
4	11 TO 20 YEARS	6	10	9	11	36
5	>20 YEARS	14	8	3	10	35
GRAND TOTAL		31	23	25	45	124
1.5.		0	1	2	3	GRAND TOTAL
1	UPPER MANAGEMENT	6		1	6	13
2	MIDDLE MANAGEMENT	19	22	20	30	91
3	LOWER MANAGEMENT	1		1	6	8
4	JUNIOR OFFICERS	5	1	3	3	12
GRAND TOTAL		31	23	25	45	124

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 8.2.4.						
	RECREATIONAL FACILITIES	NO	SUBSTANTIALLY	A LITTLE	DO NOT KNOW	
1.1.		0	1	2	3	GRAND TOTAL
1	MALE	26	10	32	32	100
2	FEMALE	5	2	5	12	24
GRAND TOTAL		31	12	37	44	124
1.2.		0	1	2	3	GRAND TOTAL
1	BLACK	7	1	5	10	23
2	ASIAN	2	3	3	7	15
3	COLOURED	3	1	1	1	6
4	WHITE	19	7	28	25	79
5	OTHER				1	1
GRAND TOTAL		31	12	37	44	124
1.3.		0	1	2	3	GRAND TOTAL
2	20 TO 29 YEARS	4	1	2	4	11
3	30 TO 39 YEARS	7	5	13	18	43
4	40 TO 49 YEARS	10	2	11	12	35
5	50 TO 59 YEARS	8	4	10	10	32
6	>59 YEARS	2		1		3
GRAND TOTAL		31	12	37	44	124
1.4.		0	1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	6	1	3	8	18
3	6 TO 10 YEARS	5	5	10	15	35
4	11 TO 20 YEARS	6	2	16	12	36
5	>20 YEARS	14	4	8	9	35
GRAND TOTAL		31	12	37	44	124
						0.5.4.1.5
1.5.		0	1	2	3	GRAND TOTAL
		6	10	1	6	13
2	MANAGEMENT	19	10	33	29	91
3		1		1	6	8
4	JUNIOR OFFICERS	5	2	2	3	12
GRAND TOTAL		31	12	37	44	124

	BERTHING	SOMETIMES	YES	NO	DO NOT KNOW	
	ARRANGEMENTS					
1.1.		0	1	2	3	TOTAL
1	MALE	1	25	7	67	100
2	FEMALE		4		20	24
GRAND TOTAL		1	29	7	87	124
1.2.		0	1	2	3	GRAND TOTAL
1	BLACK		3	1	19	23
2	ASIAN		4	1	10	15
3	COLOURED		3		3	6
4	WHITE	1	19	5	54	79
5	OTHER				1	1
GRAND TOTAL		1	29	7	87	124
1.3.		0	1	2	3	GRAND TOTAL
2	20 TO 29 YEARS			1	10	11
3	30 TO 39 YEARS		13	1	29	43
4	40 TO 49 YEARS	1	7	1	26	35
5	50 TO 59 YEARS		9	3	20	32
6	>59 YEARS			1	2	3
GRAND TOTAL		1	29	7	87	124
1.4.		0	1	2	3	GRAND TOTAL
2	1 TO 5 YEARS		2		16	18
3	6 TO 10 YEARS		10	3	22	35
4	11 TO 20 YEARS	1	8	1	26	36
5	>20 YEARS		9	3	23	35
GRAND TOTAL		1	29	7	87	124
1.5.		0	1	2	3	GRAND TOTAL
1	UPPER MANAGEMENT	1	4		8	13
2	MIDDLE MANAGEMENT		22	7	62	91
3	LOWER MANAGEMENT		1		7	8
4	JUNIOR OFFICERS		2		10	12
GRAND TOTAL		1	29	7	87	124

HAVE THESE IMPROVEMENTS BEEN BUDGETED FOR IN THE NEXT 3 TO 5 YEARS?

	CARGO HANDLING FACILITIES	SOMETIMES	YES	NO	DO NOT KNOW	
1.1.		0	1	2	3	GRAND
1	MALE	1	35	5	59	100
2	FEMALE		3		21	24
GRAND		1	38	5	80	124
TOTAL						
1.2.		0	1	2	3	GRAND TOTAI
1	BLACK		4		19	23
2	ASIAN		6	1	8	15
3	COLOURED		3		3	6
4	WHITE	1	25	4	49	79
5	OTHER				1	1
GRAND TOTAL		1	38	5	80	124
						0.5.4.1.5
1.3.		0	1	2	3	GRAND TOTAL
2	20 TO 29 YEARS		2		9	11
3	30 TO 39 YEARS		14	1	28	43
4	40 TO 49 YEARS	1	10	1	23	35
5	50 TO 59 YEARS		12	2	18	32
6	>59 YEARS			1	2	3
TOTAL		1	38	5	80	124
1.4.		0	1	2	3	GRAND
2	1 TO 5 YEARS		2		16	18
3	6 TO 10 YEARS		13	2	20	35
4	11 TO 20 YEARS	1	12	1	22	36
5	>20 YEARS		11	2	22	35
GRAND TOTAL		1	38	5	80	124
1.5.		0	1	2	3	GRAND TOTAL
1	UPPER MANAGEMENT	1	4		8	13
2	MIDDLE MANAGEMENT		30	5	56	91
3	LOWER MANAGEMENT		2		6	8
4	JUNIOR OFFICERS		2		10	12
GRAND TOTAL		1	38	5	80	124

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 8.3.2.

SURVEY QU	JESTIONNAIRE COUNT:	PORT ADMINIST	RATORS 8.3.3.			
	DRY-DOCK AND SHIP REPAIR	SOMETIMES	YES	NO	DO NOT KNOW	
1.1.		0	1	2	3	GRAND TOTAL
1	MALE	1	9	8	82	100
2	FEMALE				24	24
GRAND TOTAL		1	9	8	106	124
1.2.		0	1	2	3	GRAND TOTAL
1	BLACK		1		22	23
2	ASIAN		1	2	12	15
3	COLOURED		1	1	4	6
4	WHITE	1	6	5	67	79
5	OTHER				1	1
GRAND TOTAL		1	9	8	106	124
1.3.		0	1	2	3	GRAND TOTAL
2	20 TO 29 YEARS				11	11
3	30 TO 39 YEARS		4	2	37	43
4	40 TO 49 YEARS	1	1	1	32	35
5	50 TO 59 YEARS		4	4	24	32
6	>59 YEARS			1	2	3
GRAND TOTAL		1	9	8	106	124
1.4.		0	1	2	3	GRAND TOTAL
2	1 TO 5 YEARS				18	18
3	6 TO 10 YEARS		4	3	28	35
4	11 TO 20 YEARS	1	1	1	33	36
5	>20 YEARS		4	4	27	35
GRAND TOTAL		1	9	8	106	124
1.5.		0	1	2	3	GRAND TOTAL
1	MANAGEMENT	1		1	11	13
2	MIDDLE MANAGEMENT		У	/	/5	91
3	LOWER MANAGEMENT				8	8
4	JUNIOR OFFICERS			-	12	12
GRAND TOTAL		1	9	8	106	124

HAVE THESE IMPROVEMENTS BEEN BUDGETED FOR IN THE NEXT 3 TO 5 YEARS?

SURVEY Q	UESTIONNAIRE COUNT	PORT ADMINIS	TRATORS 8.3.4.			
	RECREATIONAL	SOMETIMES	YES	NO	DO NOT KNOW	
1.1.		0	1	2	3	GRAND TOTAL
1	MALE	1	13	7	79	100
2	FEMALE		1		23	24
GRAND TOTAL		1	14	7	102	124
1.0						ODAND
1.2.		0	1	2	3	TOTAL
1	BLACK		1		22	23
2	ASIAN		1	2	12	15
3	COLOURED		1	1	4	6
4	WHITE	1	11	4	63	79
5	OTHER				1	1
GRAND TOTAL		1	14	7	102	124
1.3.		0	1	2	3	GRAND
2	20 TO 29 YEARS				11	11
3	30 TO 39 YEARS		5	3	35	43
4	40 TO 49 YEARS	1	2	2	30	35
5	50 TO 59 YEARS		7	1	24	32
6	>59 YEARS			1	2	3
GRAND TOTAL		1	14	7	102	124
1.4.		0	1	2	3	GRAND TOTAL
2	1 TO 5 YEARS				18	18
3	6 TO 10 YEARS		6	2	27	35
4	11 TO 20 YEARS	1	3	3	29	36
5	>20 YEARS		5	2	28	35
GRAND TOTAL		1	14	7	102	124
4.5					0	ODAND
1.5.		0	1	2	3	TOTAL
1	MANAGEMENT	1		_	12	13
2	MIDDLE MANAGEMENT		14	5	/2	91
3	LOWER MANAGEMENT			1	7	8
4	JUNIOR OFFICERS			1	11	12
GRAND TOTAL		1	14	7	102	124

HAVE THESE IMPROVEMENTS BEEN BUDGETED FOR IN THE NEXT 3 TO 5 YEARS?

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RATE THE PORT	OF DUBBAN'S	MINISTRATION IN	THE FOLLOWING	CATEGORIES
	OI DUIIDAN O			UNILUOIILO.

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 9.1.1.						
	BERTHING	ALWAYS SATISFACTORY	SOMETIMES SATISFACTORY			
1.1.		1	2	GRAND TOTAL		
1	MALE	19	81	100		
2	FEMALE	18	6	24		
GRAND TOTAL		37	87	124		
1.2.		1	2	GRAND TOTAL		
1	BLACK	15	8	23		
2	ASIAN	5	10	15		
3	COLOURED	3	3	6		
4	WHITE	14	65	79		
5	OTHER		1	1		
GRAND TOTAI		37	87	124		
TOTAL						
1.3.		1	2	GRAND TOTAL		
2	20 TO 29 YEARS	5	6	11		
3	30 TO 39 YEARS	20	23	43		
4	40 TO 49 YEARS	9	26	35		
5	50 TO 59 YEARS	3	29	32		
6	>59 YEARS		3	3		
GRAND TOTAL		37	87	124		
1.4.		1	2	GRAND TOTAL		
2	1 TO 5 YEARS	14	4	18		
3	6 TO 10 YEARS	11	24	35		
4	11 TO 20 YEARS	9	27	36		
5	>20 YEARS	3	32	35		
GRAND TOTAL		37	87	124		
1.5.		1	2	GRAND TOTAL		
1	UPPER MANAGEMENT	8	5	13		
2	MIDDLE MANAGEMENT	25	66	91		
3	LOWER MANAGEMENT	1	7	8		
4	JUNIOR OFFICERS	3	9	12		
GRAND TOTAI		37	87	124		

	CARGO HANDLING	ALWAYS	SOMETIMES	NEVER	
	FACILITIES	SATISFACTORY	SATISFACTORY	SATISFACTORY	
1.1.		1	2	3	GRAND TOTAL
1	MALE	18	76	6	100
2	FEMALE	15	8	1	24
GRAND TOTAL		33	84	7	124
1.2.		1	2	3	GRAND TOTAL
1	BLACK	13	9	1	23
2	ASIAN	4	11		15
3	COLOURED	2	4		6
4	WHITE	14	59	6	79
5	OTHER		1		1
GRAND TOTAL		33	84	7	124
1.3.		1	2	3	GRAND TOTAL
2	20 TO 29 YEARS	3	7	1	11
3	30 TO 39 YEARS	18	24	1	43
4	40 TO 49 YEARS	9	21	5	35
5	50 TO 59 YEARS	2	30		32
6	>59 YEARS	1	2		3
GRAND TOTAL		33	84	7	124
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	11	6	1	18
3	6 TO 10 YEARS	10	23	2	35
4	11 TO 20 YEARS	9	24	3	36
5	>20 YEARS	3	31	1	35
GRAND TOTAL		33	84	7	124
1.5.		1	2	3	GRAND TOTAL
1	UPPER MANAGEMENT	6	6	1	13
2	MIDDLE MANAGEMENT	25	63	3	91
3	MANAGEMENT		D .		0
4	JUNIOR OFFICERS	1	9	2	12
GRAND		33	84	7	124
101AL	1	1	1	1	1

	PROTECTED	TECTED ALWAYS SOMETIMES NEVER		NEVER	
	WAREHOUSES	SATISFACTORY	SATISFACTORY	SATISFACTORY	
1.1.		1	2	3	GRAND TOTAL
1	MALE	19	77	4	100
2	FEMALE	17	6	1	24
GRAND TOTAL		36	83	5	124
1.2.		1	2	3	GRAND
1	BLACK	14	8	1	23
2	ASIAN	4	10	1	15
3	COLOURED	2	4		6
4	WHITE	15	60	3	79
5	OTHER		1		1
GRAND TOTAL		36	83	5	124
1.3.		1	2	3	GRAND
2	20 TO 29 YEARS	4	6	1	11
3	30 TO 39 YEARS	18	25		43
4	40 TO 49 YEARS	9	24	2	35
5	50 TO 59 YEARS	4	26	2	32
6	>59 YEARS	2	2		3
GRAND TOTAL		36	83	5	124
1.4.		1	2	3	GRAND
2	1 TO 5 YEARS	11	6	1	18
3	6 TO 10 YEARS	12	23		35
4	11 TO 20 YEARS	10	25	1	36
5	>20 YEARS	3	29	3	35
GRAND TOTAL		36	83	5	124
1.5.		1	2	3	GRAND
1	UPPER MANAGEMENT	6	5	2	13
2	MIDDLE MANAGEMENT	28	62	1	91
3	LOWER MANAGEMENT	1	7		8
4	JUNIOR OFFICERS	1	9	2	12
GRAND		36	83	5	124

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 9.1.4.						
	SAFE NAVIGABLE CHANNELS	ALWAYS SATISFACTORY	SOMETIMES SATISFACTORY			
1.1.		1	2	GRAND TOTAL		
1	MALE	37	63	100		
2	FEMALE	20	4	24		
GRAND		57	67	124		
TOTAL						
1.2.		1	2	GRAND TOTAL		
1	BLACK	16	7	23		
2	ASIAN	8	7	15		
3	COLOURED	4	2	6		
4	WHITE	29	50	79		
5	OTHER		1	1		
GRAND		57	67	124		
TOTAL						
13		1	2	GRAND TOTAL		
2	20 TO 29 VEARS	1	7			
3	30 TO 39 YEARS	29	14	43		
4	40 TO 49 YEARS	14	21	35		
5	50 TO 59 YEARS	9	23	32		
6	>59 YEARS	1	2	3		
GRAND		57	67	124		
TOTAL						
1.4.		1	2	GRAND TOTAL		
2	1 TO 5 YEARS	14	4	18		
3	6 TO 10 YEARS	18	17	35		
4	11 TO 20 YEARS	16	20	36		
5	>20 YEARS	9	26	35		
GRAND		57	67	124		
TOTAL						
1.5.		1	2	GRAND TOTAL		
1	UPPER MANAGEMENT	8	5	13		
2	MIDDLE MANAGEMENT	40	51	91		
3	LOWER MANAGEMENT	2	6	8		
4	JUNIOR OFFICERS	7	5	12		
GRAND TOTAL		57	67	124		

	ACCESS FOR ROAD	ALWAYS	SOMETIMES	NEVER SATISFACTORY	
		SALISFACIUNT	SATISFACTURY		0.5.115
1.1.		1	2	3	GRAND TOTAL
1	MALE	17	78	5	100
2	FEMALE	16	7	1	24
GRAND		33	85	6	124
TOTAL					
1.2.		1	2	3	GRAND TOTAL
1	BLACK	12	10	1	23
2	ASIAN	5	9	1	15
3	COLOURED	1	5		6
4	WHITE	15	60	4	79
5	OTHER		1		1
GRAND TOTAL		33	85	6	124
			-	-	
1.3.		1	2	3	GRAND
2	20 TO 29 YEARS	2	8	1	11
3	30 TO 39 YEARS	18	24	1	43
4	40 TO 49 YEARS	9	24	2	35
5	50 TO 59 YEARS	3	27	2	32
6	>59 YEARS	1	2		3
GRAND TOTAL		33	85	6	124
				-	
1.4.		1	2	3	GRAND
2	1 TO 5 YEARS	10	7	1	18
3	6 TO 10 YEARS	9	26		35
4	11 TO 20 YEARS	12	22	2	36
5	>20 YEARS	2	30	3	35
GRAND TOTAL		33	85	6	124
1.5.		1	2	3	GRAND TOTAL
1	UPPER MANAGEMENT	5	6	2	13
2	MIDDLE MANAGEMENT	25	65	1	91
3	LOWER MANAGEMENT	1	7		8
4	JUNIOR OFFICERS	2	7	3	12
GRAND TOTAL		33	85	6	124

	COULD DURBAN'S PORT	ADMINISTRATORS IMPRO	VE THE HARBOUR'S PHYSICAL	CHARACTERISTICS?
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SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 9.2.					
		YES	NO	DO NOT KNO	W
1.1.		1	2	3	GRAND TOTAL
1	MALE	73	19	8	100
2	FEMALE	10	11	3	24
GRAND TOTAL		83	30	11	124
1.2.		1	2	3	GRAND TOTAL
1	BLACK	11	12		23
2	ASIAN	10	3	2	15
3	COLOURED	5	1		6
4	WHITE	57	14	8	79
5	OTHER			1	1
GRAND TOTAL		83	30	11	124
1.3.		1	2	3	GRAND TOTAL
2	20 TO 29 YEARS	7	3	1	11
3	30 TO 39 YEARS	23	17	3	43
4	40 TO 49 YEARS	24	8	3	35
5	50 TO 59 YEARS	26	2	4	32
6	>59 YEARS	3			3
GRAND TOTAL		83	30	11	124
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	7	11		18
3	6 TO 10 YEARS	23	9	3	35
4	11 TO 20 YEARS	24	9	3	36
5	>20 YEARS	29	1	5	35
GRAND TOTAL		83	30	11	124
15		1	2	3	GRAND TOTAL
1	UPPER	8	5		13
1	MANAGEMENT	0	5		10
2	MIDDLE MANAGEMENT	60	23	8	91
3	LOWER MANAGEMENT	5	2	1	8
4	JUNIOR OFFICERS	10		2	12
GRAND TOTAL		83	30	11	124

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 9.3.1.				
	BERTHING FACILITIES	NO	YES	
1.1.		0	1	GRAND TOTAL
1	MALE	46	54	100
2	FEMALE	21	3	24
GRAND TOTAL		67	57	124
1.2.		0	1	GRAND TOTAL
1	BLACK	18	5	23
2	ASIAN	9	6	15
3	COLOURED	2	4	6
4	WHITE	37	42	79
5	OTHER	1		1
GRAND TOTAL		67	57	124
1.3.		0	1	GRAND TOTAL
2	20 TO 29 YEARS	8	3	11
3	30 TO 39 YEARS	25	18	43
4	40 TO 49 YEARS	20	15	35
5	50 TO 59 YEARS	13	19	32
6	>59 YEARS	1	2	3
GRAND TOTAL		67	57	124
1.4.		0	1	GRAND TOTAL
2	1 TO 5 YEARS	15	3	18
3	6 TO 10 YEARS	18	17	35
4	11 TO 20 YEARS	19	17	36
5	>20 YEARS	15	20	35
GRAND TOTAL		67	57	124
1.5.		0	1	GRAND TOTAL
1		8	5	13
2	MIDDLE MANAGEMENT	48	43	91
3	LOWER MANAGEMENT	6	2	8
4	JUNIOR OFFICERS	5	7	12
GRAND TOTAL		67	57	124

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 9.3.2.									
	CARGO HANDLING FACILITIES	NO	YES						
1.1.		0	1	GRAND TOTAL					
1	MALE	45	55	100					
2	FEMALE	17	7	24					
GRAND TOTAL		62	62	124					
1.2.		0	1	GRAND TOTAL					
1	BLACK	15	8	23					
2	ASIAN	6	9	15					
3	COLOURED	1	5	6					
4	WHITE	39	40	79					
5	OTHER	1		1					
GRAND TOTAL		62	62	124					
1.3.		0	1	GRAND TOTAL					
2	20 TO 29 YEARS	6	5	11					
3	30 TO 39 YEARS	24	19	43					
4	40 TO 49 YEARS	17	18	35					
5	50 TO 59 YEARS	13	19	32					
6	>59 YEARS	2	1	3					
GRAND TOTAL		62	62	124					
1.4.		0	1	GRAND TOTAL					
2	1 TO 5 YEARS	13	5	18					
3	6 TO 10 YEARS	18	17	35					
4	11 TO 20 YEARS	16	20	36					
5	>20 YEARS	15	20	35					
GRAND TOTAL		62	62	124					
1.5.		0	1	GRAND TOTAL					
1	UPPER MANAGEMENT	9	4	13					
2	MIDDLE MANAGEMENT	45	46	91					
3	LOWER MANAGEMENT	5	3	8					
4	JUNIOR OFFICERS	3	9	12					
GRAND TOTAL		62	62	124					
SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 9.3.3.									
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	PROTECTED STORAGE AND WAREHOUSES	NO	YES						
1.1.		0	1	GRAND TOTAL					
1	MALE	69	31	100					
2	FEMALE	22	2	24					
GRAND		91	33	124					
TOTAL									
12		0	1	GRAND TOTAL					
1	BLACK	18	5	23					
2	ASIAN	9	6	15					
3		2	4	6					
4	WHITE	37	42	79					
5	OTHER	1		1					
GRAND		67	57	124					
TOTAL		07	57	124					
1.3.		0	1	GRAND TOTAL					
2	20 TO 29 YEARS	10	1	11					
3	30 TO 39 YEARS	33	10	43					
4	40 TO 49 YEARS	28	7	35					
5	50 TO 59 YEARS	19	13	32					
6	>59 YEARS	1	2	3					
GRAND TOTAL		91	33	124					
1.4.		0	1	GRAND TOTAL					
2	1 TO 5 YEARS	17	1	18					
3	6 TO 10 YEARS	27	8	35					
4	11 TO 20 YEARS	26	10	36					
5	>20 YEARS	21	14	35					
GRAND		91	33	124					
TOTAL									
1.5.		0	1	GRAND TOTAL					
1	UPPER MANAGEMENT	12	1	13					
2	MIDDLE MANAGEMENT	67	24	91					
3	LOWER MANAGEMENT	7	1	8					
4	JUNIOR OFFICERS	5	7	12					
GRAND		91	33	124					
TOTAL									

IF "YES", WHICH CATEGORIES NEED TO BE IMPROVED?

IF "YES", WHICH CATEGORIES NEED TO BE IMPROVED?

	SAFE NAVIGABLE CHANNELS	NO	YES	
1.1.		0	1	GRAND TOTAL
1	MALE	48	52	100
2	FEMALE	18	6	24
GRAND TOTAL		66	58	124
1.2.		0	1	GRAND TOTAL
1	BLACK	16	7	23
2	ASIAN	9	6	15
3	COLOURED	2	4	6
4	WHITE	38	41	79
5	OTHER	1		1
GRAND TOTAL		66	58	124
1.3.		0	1	GRAND TOTAL
2	20 TO 29 YEARS	7	4	11
3	30 TO 39 YEARS	27	16	43
4	40 TO 49 YEARS	23	12	35
5	50 TO 59 YEARS	9	23	32
6	>59 YEARS		3	3
GRAND TOTAL		66	58	124
1.4.		0	1	GRAND TOTAL
2	1 TO 5 YEARS	16	2	18
3	6 TO 10 YEARS	17	18	35
4	11 TO 20 YEARS	20	16	36
5	>20 YEARS	13	22	35
GRAND TOTAL		66	58	124
1.5.		0	1	GRAND TOTAL
1		9	4	13
2		46	45	91
3		6	2	8
4	JUNIOR OFFICERS	5	7	12
GRAND TOTAL		66	58	124

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 9.3.4

	BERTHING FACILITIES	SOMETIMES	YES	NO	DO NOT KNOW	
1.1.		0	1	2	3	GRAND
1	MALE	4	39	2	55	1001712
2	FEMALE	4	2		18	24
GRAND TOTAL		8	41	2	73	124
1.2.		0	1	2	3	GRAND TOTAL
1	BLACK	2	3		18	23
2	ASIAN		4		11	15
3	COLOURED		4		2	6
4	WHITE	6	30	2	41	79
5	OTHER				1	1
GRAND TOTAL		8	41	2	73	124
1.3.		0	1	2	3	GRAND TOTAL
2	20 TO 29 YEARS	2	2		7	11
3	30 TO 39 YEARS		14		29	43
4	40 TO 49 YEARS	4	8		23	35
5	50 TO 59 YEARS	2	17	1	12	32
6	>59 YEARS			1	2	3
GRAND TOTAL		8	41	2	73	124
1.4.		0	1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	2	2		14	18
3	6 TO 10 YEARS	1	15		19	35
4	11 TO 20 YEARS	1	10		25	36
5	>20 YEARS	4	14	2	15	35
GRAND TOTAL		8	41	2	73	124
1.5.		0	1	2	3	GRAND TOTAL
1	MANAGEMENT		5		8	13
2	MIDDLE MANAGEMENT	8	31	1	51	91
3	LOWER MANAGEMENT		2		6	8
4	JUNIOR OFFICERS		3	1	8	12
GRAND TOTAL		8	41	2	73	124

	CARGO	GO SOMETIMES YES DO NOT KNOW					
	HANDLING						
1.1.		0	1	3	GRAND TOTAL		
1	MALE	4	40	56	100		
2	FEMALE	3	3	18	24		
GRAND TOTAL		7	43	74	124		
1.2.		0	1	3	GRAND		
1	BLACK	1	4	18	23		
2			7	8	15		
3			4	2	6		
4	WHITE	6	28	45	79		
5		0	20	45	1		
	UTIEN	7	43	74	12/		
TOTAL		1	+5	/+	124		
1.3.		0	1	3	GRAND		
2	20 TO 29 YEARS	1	2	8	11		
3	30 TO 39 YEARS		16	27	43		
4	40 TO 49 YEARS	4	9	22	35		
5	50 TO 59 YEARS	2	15	15	32		
6	>59 YEARS		1	2	3		
GRAND TOTAL		7	43	74	124		
1.4.		0	1	3	GRAND TOTAL		
2	1 TO 5 YEARS	1	2	15	18		
3	6 TO 10 YEARS	1	15	19	35		
4	11 TO 20 YEARS	2	10	24	36		
5	>20 YEARS	3	16	16	35		
GRAND TOTAL		7	43	74	124		
1.5.		0	1	3	GRAND		
1	UPPER MANAGEMENT	1	4	8	13		
2	MIDDLE MANAGEMENT	6	35	50	91		
3	LOWER MANAGEMENT		2	6	8		
4	JUNIOR		2	10	12		
GRAND		7	43	74	124		
1() A	1	1	1		1		

SURVEY Q	UESTIONNAIRE COUNT:	PORT ADMINIS	TRATORS 9.4.3	8.		
	PROTECTED STORAGE AND WAREHOUSES	SOMETIMES	YES	NO	DO NOT KNOW	
1.1.		0	1	2	3	GRAND TOTAL
1	MALE	6	18	2	74	100
2	FEMALE	4			20	24
GRAND TOTAL		10	18	2	94	124
1.2.		0	1	2	3	GRAND TOTAL
1	BLACK	2			21	23
2	ASIAN		3		12	15
3	COLOURED		2		4	6
4	WHITE	8	13	2	56	79
5	OTHER				1	1
GRAND TOTAL		10	18	2	94	124
1.3.		0	1	2	3	GRAND TOTAL
2	20 TO 29 YEARS	2			9	11
3	30 TO 39 YEARS		5	1	37	43
4	40 TO 49 YEARS	5	4		26	35
5	50 TO 59 YEARS	3	8	1	20	32
6	>59 YEARS		1		2	3
GRAND TOTAL		10	18	2	94	124
1.4.		0	1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	2			16	18
3	6 TO 10 YEARS	1	4	1	29	35
4	11 TO 20 YEARS	2	6		28	36
5	>20 YEARS	5	8	1	21	35
GRAND TOTAL		10	18	2	94	124
1.5.		0	1	2	3	GRAND TOTAL
1	UPPER MANAGEMENT	1	1		11	13
2	MIDDLE	9	14	2	66	91
3			2		6	8
4	OFFICERS					12
GRAND TOTAL		10	18	2	94	124

SURVEY (QUESTIONNAIRE COUNT:	PORT ADMINIST	RATORS 9.4.	4.		
	SAFE NAVIGABLE CHANNELS	SOMETIMES	YES	NO	DO NOT KNOW	
1.1.		0	1	2	3	GRAND TOTAL
1	MALE	3	44	2	51	100
2	FEMALE	4	6		14	24
GRAND TOTAL		7	50	2	65	124
1.2.		0	1	2	3	GRAND TOTAL
1	BLACK	2	6		15	23
2	ASIAN		6		9	15
3	COLOURED		3		3	6
4	WHITE	5	35	2	37	79
5	OTHER				1	1
GRAND TOTAL		7	50	2	65	124
1.3.		0	1	2	3	GRAND TOTAL
2	20 TO 29 YEARS	2	3		6	11
3	30 TO 39 YEARS		18		25	43
4	40 TO 49 YEARS	3	8		24	35
5	50 TO 59 YEARS	2	20	1	9	32
6	>59 YEARS		1	1	1	3
GRAND TOTAL		7	50	2	65	124
1.4.		0	1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	2	3		13	18
3	6 TO 10 YEARS		18		17	35
4	11 TO 20 YEARS	1	11		24	36
5	>20 YEARS	4	18	2	11	35
GRAND TOTAL		7	50	2	65	124
1.5.		0	1	2	3	GRAND TOTAL
1	UPPER MANAGEMENT		7		6	13
2	MIDDLE MANAGEMENT	7	38	1	45	91
3			2		6	8
4	JUNIOR OFFICERS	_	3	1	8	12
GRAND TOTAL		1	50	2	65	124

		COMETINES	VEC	NO		T
	ACCESS FOR ROAD	SOMETIMES	YES	NO	DO NOT KNOW	
1.1.		0	1	2	3	GRAND TOTAI
1	MALE	2	26	3	69	100
2	FEMALE	4	2		18	24
GRAND TOTAL		6	28	3	87	124
1.2.		0	1	2	3	GRAND TOTAL
1	BLACK	1	3	1	18	23
2	ASIAN		3	1	11	15
3	COLOURED		4		2	6
4	WHITE	5	18	1	55	79
5	OTHER				1	1
GRAND TOTAL		6	28	3	87	124
1.3.		0	1	2	3	GRAND TOTAL
2	20 TO 29 YEARS	1	2	1	7	11
3	30 TO 39 YEARS		11	1	31	43
4	40 TO 49 YEARS	3	7		25	35
5	50 TO 59 YEARS	2	7	1	22	32
6	>59 YEARS		1		2	3
GRAND TOTAL		6	28	3	87	124
1.4.		0	1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	1	1	1	15	18
3	6 TO 10 YEARS		13		22	35
4	11 TO 20 YEARS	1	5	1	29	36
5	>20 YEARS	4	9	1	21	35
GRAND TOTAL		6	28	3	87	124
1.5.		0	1	2	3	GRAND TOTAL
1	UPPER MANAGEMENT		6		7	13
2	MIDDLE MANAGEMENT	6	20	3	62	91
3	MANAGEMENT				8	8
4	JUNIOR OFFICERS		2		10	12
GRAND TOTAL		6	28	3	87	124

SURVEY QU	ESTIONNAIRE COUNT:	PORT A	DMINIST	FRATORS	S 10.1.1.					
1.1.	COSTS	1	2	3	4	5	6	7	8	GRAND TOTAL
1	MALE	41	18	17	8	6	4	2	4	100
2	FEMALE	6	3	2	3	4	4	1	1	24
GRAND TOTAL		47	21	19	11	10	8	3	5	124
1.2.		1	2	3	4	5	6	7	8	GRAND
1	BLACK	6	2	2	3	5	3	1	1	23
2	ASIAN	8	2	2	1	1	1			15
3	COLOURED	3		1	1				1	6
4	WHITE	30	17	13	6	4	4	2	3	79
5	OTHER			1						1
GRAND TOTAL		47	21	19	11	10	8	3	5	124
						_		_		
1.3.		1	2	3	4	5	6	7	8	GRAND TOTAL
2	20 TO 29 YEARS	3	2	2	1	1	1	1		11
3	30 TO 39 YEARS	17	7	5	3	5	4		2	43
4	40 TO 49 YEARS	13	5	8	4	2	2		1	35
5	50 TO 59 YEARS	11	7	4	3	2	1	2	2	32
6	>59 YEARS	3								3
GRAND TOTAL		47	21	19	11	10	8	3	5	124
1.4.		1	2	3	4	5	6	7	8	GRAND TOTAL
2	1 TO 5 YEARS	3	3	2	3	3	3	1		18
3	6 TO 10 YEARS	14	8	7	1	3			2	35
4	11 TO 20 YEARS	12	6	6	5	2	4		1	36
5	>20 YEARS	18	4	4	2	2	1	2	2	35
GRAND TOTAL		47	21	19	11	10	8	3	5	124
1.5.		1	2	3	4	5	6	7	8	GRAND TOTAI
1	UPPER MANAGEMENT	2	2	3	2	2	2			13
2	MIDDLE MANAGEMENT	36	18	12	7	8	5	1	4	91
3	LOWER MANAGEMENT	2		4	1			1		8
4	JUNIOR OFFICERS	7	1		1		1	1	1	12
GRAND TOTAL		47	21	19	11	10	8	3	5	124

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS10.1.2.										
1.1.	INFRASTRUCTURE	1	2	3	4	5	6	7	8	GRAND TOTAL
1	MALE	9	17	16	25	11	9	4	9	100
2	FEMALE	3	3	4	1	4	3	3	3	24
GRAND TOTAL		12	20	20	26	15	12	7	12	124
1.2.		1	2	3	4	5	6	7	8	GRAND TOTAL
1	BLACK	3	3	3	1	3	4	3	3	23
2	ASIAN	1	1	3	3	3		1	3	15
3	COLOURED	1	2	2	1					6
4	WHITE	7	14	12	20	9	8	3	6	79
5	OTHER				1					1
GRAND TOTAL		12	20	20	26	15	12	7	12	124
						_				
1.3.		1	2	3	4	5	6	7	8	GRAND TOTAL
2	20 TO 29 YEARS	1	1	2		3	2		2	11
3	30 TO 39 YEARS	5	6	6	9	3	4	4	6	43
4	40 TO 49 YEARS	4	7	5	9	4	3	1	2	35
5	50 TO 59 YEARS	2	6	6	7	4	3	2	2	32
6	>59 YEARS			1	1	1				3
GRAND TOTAL		12	20	20	26	15	12	7	12	124
1.4.		1	2	3	4	5	6	7	8	GRAND TOTAL
2	1 TO 5 YEARS	3	2	2	1	3	2	3	2	18
3	6 TO 10 YEARS	3	5	6	8	4	3		6	35
4	11 TO 20 YEARS	5	5	4	9	4	4	2	3	36
5	>20 YEARS	1	8	8	8	4	3	2	1	35
GRAND TOTAL		12	20	20	26	15	12	7	12	124
1.5.		1	2	3	4	5	6	7	8	GRAND TOTAL
1	UPPER MANAGEMENT	2	2	1	2		4	2		13
2	MIDDLE MANAGEMENT	6	13	17	21	12	5	5	12	91
3	LOWER MANAGEMENT	2	1		2	1	2			8
4	JUNIOR OFFICERS	2	4	2	1	2	1			12
GRAND TOTAL		12	20	20	26	15	12	7	12	124

SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 10.1.3.										
1.1.	INNOVATION	1	2	3	4	5	6	7	8	GRAND TOTAL
1	MALE	8	17	25	11	12	11	9	7	100
2	FEMALE	2	4	4	1	2	5	4	2	24
GRAND TOTAL		10	21	29	12	14	16	13	9	124
						_		_		
1.2.		1	2	3	4	5	6	7	8	GRAND TOTAL
1	BLACK	2	2	5	1	3	5	3	2	23
2	ASIAN	1	3	3	1	3	2	1	1	15
3	COLOURED				2	2		2		6
4	WHITE	7	15	21	8	6	9	7	6	79
5	OTHER		1							1
GRAND TOTAL		10	21	29	12	14	16	13	9	124
						_		_		
1.3.		1	2	3	4	5	6	7	8	GRAND TOTAL
2	20 TO 29 YEARS	2		3	1		2	1	2	11
3	30 TO 39 YEARS	2	7	9	5	7	5	6	2	43
4	40 TO 49 YEARS	2	7	7	4	2	5	3	5	35
5	50 TO 59 YEARS	4	5	9	2	5	4	3		32
6	>59 YEARS		2	1						3
GRAND TOTAL		10	21	29	12	14	16	13	9	124
1.4.		1	2	3	4	5	6	7	8	GRAND TOTAL
2	1 TO 5 YEARS	2	1	1	1	3	4	4	2	18
3	6 TO 10 YEARS	3	5	10	5	3	4	2	3	35
4	11 TO 20 YEARS	2	9	9	3	5	5	1	2	36
5	>20 YEARS	3	6	9	3	3	3	6	2	35
GRAND TOTAL		10	21	29	12	14	16	13	9	124
1.5.		1	2	3	4	5	6	7	8	GRAND TOTAL
1	UPPER MANAGEMENT			2		3	2	5	1	13
2	MIDDLE MANAGEMENT	9	19	24	8	8	12	6	5	91
3	LOWER MANAGEMENT	1	1	1	2	2	1			8
4	JUNIOR OFFICERS		1	2	2	1	1	2	3	12
GRAND TOTAL		10	21	29	12	14	16	13	9	124

SURVEY QL	JESTIONNAIRE COUNT: P	ORT AD	MINISTI	RATORS	6 10.1.4.					
1.1.	PHYSICAL CHARACTERISTICS	1	2	3	4	5	6	7	8	GRAND TOTAL
1	MALE	6	9	5	10	17	18	18	17	100
2	FEMALE		2	2	3	3	2	8	4	24
GRAND TOTAL		6	11	7	13	20	20	26	21	124
1.2.		1	2	3	4	5	6	7	8	GRAND
1			1	2	3	3	4	8	2	23
2	ASIAN		1	2	2	3	2	5	-	15
3	COLOURED			1	-	1	- 1	1	2	6
4	WHITE	6	9	2	8	13	13	11	17	79
5	OTHER	-	-			-		1		1
GRAND TOTAL		6	11	7	13	20	20	26	21	124
1.3.		1	2	3	4	5	6	7	8	GRAND TOTAL
2	20 TO 29 YEARS		1	1	2	1	2	3	1	11
3	30 TO 39 YEARS	1	2	3	4	8	10	12	3	43
4	40 TO 49 YEARS	4	6	3	2	7	3	6	4	35
5	50 TO 59 YEARS	1	1		4	4	5	5	12	32
6	>59 YEARS		1		1				1	3
GRAND TOTAL		6	11	7	13	20	20	26	21	124
			-			_		-		
1.4.		1	2	3	4	5	6	1	8	TOTAL
2	1 TO 5 YEARS	1	1	3	2	1	3	7		18
3	6 TO 10 YEARS	1	2	1	3	6	12	7	3	35
4	11 TO 20 YEARS	3	4	2	4	10	1	8	4	36
5	>20 YEARS	1	4	1	4	3	4	4	14	35
GRAND TOTAL		6	11	7	13	20	20	26	21	124
									-	
1.5.		1	2	3	4	5	6	7	8	GRAND TOTAL
1	UPPER MANAGEMENT	1	4	1	2		1	3	1	13
2	MIDDLE MANAGEMENT	5	6	2	10	17	15	19	17	91
3	LOWER MANAGEMENT					2	3	2	1	8
4	JUNIOR OFFICERS		1	4	1	1	1	2	2	12
GRAND TOTAI		6	11	7	13	20	20	26	21	124

SURVEY QU	SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 10.1.5.										
1.1.	QUALITY	1	2	3	4	5	6	7	8	GRAND TOTAL	
1	MALE	1	8	3	10	19	13	24	22	100	
2	FEMALE		3	3	2	3	4	4	5	24	
GRAND TOTAL		1	11	6	12	22	17	28	27	124	
1.2.		1	2	3	4	5	6	7	8	GRAND TOTAL	
1	BLACK		3	1	3	5	3	4	4	23	
2	ASIAN		2	3			4	1	5	15	
3	COLOURED		1	1	1	1			2	6	
4	WHITE	1	5	1	8	16	9	23	16	79	
5	OTHER						1			1	
GRAND TOTAL		1	11	6	12	22	17	28	27	124	
1.3.		1	2	3	4	5	6	7	8	GRAND TOTAL	
2	20 TO 29 YEARS		1	1		2	3	3	1	11	
3	30 TO 39 YEARS		6	3	4	7	7	7	9	43	
4	40 TO 49 YEARS		1		5	8	3	7	11	35	
5	50 TO 59 YEARS	1	3	2	3	5	4	9	5	32	
6	>59 YEARS							2	1	3	
GRAND TOTAL		1	11	6	12	22	17	28	27	124	
1.4.		1	2	3	4	5	6	7	8	GRAND TOTAL	
2	1 TO 5 YEARS		2	1	3	4	2	1	5	18	
3	6 TO 10 YEARS		4	2	1	6	6	11	5	35	
4	11 TO 20 YEARS		2	1	3	3	6	7	14	36	
5	>20 YEARS	1	3	2	5	9	3	9	3	35	
GRAND TOTAL		1	11	6	12	22	17	28	27	124	
								L		0.0.4.1.1.0	
1.5.		1	2	3	4	5	6	7	8	GRAND TOTAL	
1	MANAGEMENT		1	2	2	4	15	1	3	13	
2	MIDDLE MANAGEMENT		/	4	/	14	15	24	20	91	
3	MANAGEMENT				1	2		3	2	8	
4	JUNIOR OFFICERS	1	3		2	2	2		2	12	
GRAND TOTAL		1	11	6	12	22	17	28	27	124	

SURVEY Q	SURVEY QUESTIONNAIRE COUNT: PORT ADMINISTRATORS 10.1.6									
1.1.	REPUTATION	1	2	3	4	5	6	7	8	GRAND TOTAL
1	MALE	4	7	9	9	15	19	24	13	100
2	FEMALE	1	2	4	6	1	5	1	4	24
GRAND TOTAL		5	9	13	15	16	24	25	17	124
						_		_		
1.2.		1	2	3	4	5	6	7	8	GRAND TOTAL
1	BLACK	2	4	4	7	1		1	4	23
2	ASIAN				2	3	2	5	3	15
3	COLOURED				1	1	3	1		6
4	WHITE	3	5	9	5	10	19	18	10	79
5	OTHER					1				1
GRAND TOTAL		5	9	13	15	16	24	25	17	124
				-		_		_	-	
1.3.		1	2	3	4	5	6	7	8	GRAND TOTAL
2	20 TO 29 YEARS	1	2		5	1		1	1	11
3	30 TO 39 YEARS	1	3	6	6	7	5	8	7	43
4	40 TO 49 YEARS	2	1	3	1	5	12	7	4	35
5	50 TO 59 YEARS	1	3	4	3	3	5	8	5	32
6	>59 YEARS						2	1		3
GRAND TOTAL		5	9	13	15	16	24	25	17	124
1.4.		1	2	3	4	5	6	7	8	GRAND TOTAL
2	1 TO 5 YEARS	2	3	3	6	1			3	18
3	6 TO 10 YEARS		2	3	4	5	5	10	6	35
4	11 TO 20 YEARS	2	1	4	2	6	8	7	6	36
5	>20 YEARS	1	3	3	3	4	11	8	2	35
GRAND TOTAL		5	9	13	15	16	24	25	17	124
1.5.		1	2	3	4	5	6	7	8	GRAND TOTAL
1	UPPER MANAGEMENT	1	1	2	2	1	2		4	13
2	MIDDLE MANAGEMENT	4	5	8	11	11	20	21	11	91
3	LOWER MANAGEMENT		2	1		1	1	1	2	8
4	JUNIOR OFFICERS		1	2	2	3	1	3		12
GRAND TOTAL		5	9	13	15	16	24	25	17	124

SURVEY C	QUESTIONNAIRE COUNT	: PORT A	ADMINIS [®]	TRATOR	S 10.1.7.					
1.1.	TRAINING	1	2	3	4	5	6	7	8	GRAND TOTAL
1	MALE	8	8	5	11	10	20	14	24	100
2	FEMALE	10	3	1	2	3		2	3	24
GRAND TOTAL		18	11	6	13	13	20	16	27	124
1.2.		1	2	3	4	5	6	7	8	GRAND TOTAL
1	BLACK	9	3	1	2	1	1	1	5	23
2	ASIAN	4	1	1	2	1	3	2	1	15
3	COLOURED	1	1				2	2		6
4	WHITE	4	6	4	9	11	14	11	20	79
5	OTHER								1	1
GRAND TOTAL		18	11	6	13	13	20	16	27	124
1.3.		1	2	3	4	5	6	7	8	GRAND TOTAL
2	20 TO 29 YEARS	2	3	1		1		1	3	11
3	30 TO 39 YEARS	13	1	1	5	2	6	5	10	43
4	40 TO 49 YEARS	1	3	1	4	3	6	8	9	35
5	50 TO 59 YEARS	2	4	3	4	6	7	2	4	32
6	>59 YEARS					1	1		1	3
GRAND TOTAL		18	11	6	13	13	20	16	27	124
1.4.		1	2	3	4	5	6	7	8	GRAND
2		7	2	1	2		2	1	3	TOTAL 18
2		7	2	1	5	1	4	1	0	25
3		2	2	2	3	4	4	4	9	36
5		2	7	2	3	5	8	2	0	35
GRAND	20 TEANS	18	11	6	13	13	20	16	27	124
TOTAL		10		0	10	10	20	10	21	124
15		1	2	3	4	5	6	7	8	GRAND
1.0.		<u> </u>	-	Ŭ	-	Ŭ	Ŭ	<u>'</u>	Ŭ	TOTAL
1	UPPER MANAGEMENT	4	2		1		2	2	2	13
2	MIDDLE MANAGEMENT	11	8	5	10	13	13	11	20	91
3	LOWER MANAGEMENT	1	1	1	1		1	1	2	8
4	JUNIOR OFFICERS	2			1		4	2	3	12
GRAND TOTAI		18	11	6	13	13	20	16	27	124

SURVEY Q	JESTIONNAIRE COUNT	: PORT	ADMIN	STRAT	ORS 10	.1.8.					
1.1.	TURAROUND TIME	1	2	3	4	5	6	7	8	9	GRAND TOTAL
1	MALE	23	15	20	16	9	6	5	5	1	100
2	FEMALE	2	4	4	6	5	1	1	1		24
GRAND TOTAL		25	19	24	22	14	7	6	6	1	124
1.2.		1	2	3	4	5	6	7	8	9	GRAND TOTAL
1	BLACK	1	5	5	3	3	3	2		1	23
2	ASIAN	1	5	1	4	1	1		2		15
3	COLOURED	1	2	1		1			1		6
4	WHITE	21	7	17	15	9	3	4	3		79
5	OTHER	1									1
GRAND TOTAL		25	19	24	22	14	7	6	6	1	124
1.3.		1	2	3	4	5	6	7	8	9	GRAND TOTAL
2	20 TO 29 YEARS	2	1	1	2	3	1	1			11
3	30 TO 39 YEARS	4	10	11	7	4	2	1	3	1	43
4	40 TO 49 YEARS	9	5	7	6	4	1	3			35
5	50 TO 59 YEARS	10	3	4	6	2	3	1	3		32
6	>59 YEARS			1	1	1					3
GRAND TOTAL		25	19	24	22	14	7	6	6	1	124
1.4.		1	2	3	4	5	6	7	8	9	GRAND TOTAL
2	1 TO 5 YEARS		4	5		4	2	1	1	1	18
3	6 TO 10 YEARS	7	7	6	8	4	1	1	1		35
4	11 TO 20 YEARS	10	4	8	7	2	2	2	1		36
5	>20 YEARS	8	4	5	7	4	2	2	3		35
GRAND TOTAL		25	19	24	22	14	7	6	6	1	124
1.5.		1	2	3	4	5	6	7	8	9	GRAND TOTAL
1	UPPER MANAGEMENT	3	1	2	2	3			1	1	13
2	MIDDLE MANAGEMENT	20	14	19	17	7	6	4	4		91
3	LOWER MANAGEMENT	2	3	1	1				1		8
4	JUNIOR OFFICERS		1	2	2	4	1	2			12
GRAND TOTAL		25	19	24	22	14	7	6	6	1	124

3. Count of survey questionnaire: Waterfront Facilitators

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SINCE 2002, THE QUALITY OF ADMINISTRATION AT THE PORT OF DURBAN HAS IMPROVED.

		AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE	
1.1.		2	3	4	5	GRAND TOTAL
1	MALE	6	7	19	4	36
2	FEMALE	1	4	3	1	9
GRAND TOTAL		7	11	22	5	45
1.2.		2	3	4	5	GRAND TOTAL
1	BLACK	3	1			4
2	ASIAN	2	3	6		11
3	COLOURED	1	1			2
4	WHITE	1	6	16	5	28
GRAND TOTAL		7	11	22	5	45
1.3.		2	3	4	5	GRAND TOTAL
1	<20 YEARS		1			1
2	20 TO 29 YEARS	3	1			4
3	30 TO 39 YEARS	1		4	1	6
4	40 TO 49 YEARS	1	4	14	3	22
5	50 TO 59 YEARS		4	4		8
6	>59 YEARS	2	1		1	4
GRAND TOTAL		7	11	22	5	45
1.4.		2	3	4	5	GRAND TOTAL
2	1 TO 5 YEARS	3	3	7	1	14
3	6 TO 10 YEARS	2	6	7	1	16
4	11 TO 20 YEARS	1		6	3	10
5	>20 YEARS	1	2	2		5
GRAND TOTAI		7	11	22	5	45

SURVEY QUESTIONNAIRE COUNT: WATERFRONT FACILITATORS 2.1.

DURBAN'S PORT ADMINISTRATORS KEEP THE LOCAL COMMUNITY INFORMED OF UPCOMING EVENTS/ACTIVITIES THAT MAY HAVE AN IMPACT ON MY BUSINESS.

SURVEY QUESTIONNAIRE COUNT: WATERFRONT FACILITATORS 2.2.							
		SOMETIMES	NEVER				
1.1.		2	3	GRAND TOTAL			
1	MALE	13	23	36			
2	FEMALE	4	5	9			
GRAND TOTAL		17	28	45			
1.2.		2	3	GRAND TOTAL			
1	BLACK	3	1	4			
2	ASIAN	6	5	11			
3	COLOURED	2		2			
4	WHITE	6	22	28			
GRAND TOTAL		17	28	45			
1.3.		2	3	GRAND TOTAL			
1	<20 YEARS		1	1			
2	20 TO 29 YEARS	4		4			
3	30 TO 39 YEARS	2	4	6			
4	40 TO 49 YEARS	7	15	22			
5	50 TO 59 YEARS	2	6	8			
6	>59 YEARS	2	2	4			
GRAND TOTAL		17	28	45			
1.4.		2	3	GRAND TOTAL			
2	1 TO 5 YEARS	8	6	14			
3	6 TO 10 YEARS	4	12	16			
4	11 TO 20 YEARS	4	6	10			
5	>20 YEARS	1	4	5			
GRAND TOTAL		17	28	45			

IT APPEARS THAT VESSELS ARE MOVED SAFELY WHEN ENTERING OR LEAVING THE HARBOUR ENTRANCE CHANNEL AT THE PORT OF DURBAN.

		MOSTLY	SOMETIMES	DO NOT KNOW	
1.1.		1	2	4	GRAND
1	MALE	20	3	13	36
2	FEMALE	3	1	5	9
GRAND TOTAL		23	4	18	45
1.2.		1	2	4	GRAND
1	BLACK	2		2	4
2	ASIAN	5	1	5	11
3	COLOURED	1	1		2
4	WHITE	15	2	11	28
GRAND TOTAL		23	4	18	45
1.3.		1	2	4	GRAND
1	<20 YEARS			1	1
2	20 TO 29 YEARS	3	1		4
3	30 TO 39 YEARS	2		4	6
4	40 TO 49 YEARS	11	3	8	22
5	50 TO 59 YEARS	5		3	8
6	>59 YEARS	2		2	4
GRAND TOTAL		23	4	18	45
1.4.		1	2	4	GRAND TOTAL
2	1 TO 5 YEARS	5	4	5	14
3	6 TO 10 YEARS	7		9	16
4	11 TO 20 YEARS	7		3	10
5	>20 YEARS	4		1	5
GRAND TOTAL		23	4	18	45

IS YOUR RENTAL MARKET RELATED?

SURVEY G	UESTIONNAIRE COUNT	: WATERFRONT FA	CILITATORS 3.1.		
		YES	NO	DO NOT KNOW	
1.1.		1	2	3	GRAND TOTAL
1	MALE	4	30	2	36
2	FEMALE	3	6		9
GRAND TOTAL		7	36	2	45
1.2.		1	2	3	GRAND TOTAL
1	BLACK	3	1		4
2	ASIAN	1	10		11
3	COLOURED		2		2
4	WHITE	3	23	2	28
GRAND TOTAL		7	36	2	45
				-	
1.3.		1	2	3	GRAND TOTAL
1	<20 YEARS		1		1
2	20 TO 29 YEARS	2	2		4
3	30 TO 39 YEARS	1	5		6
4	40 TO 49 YEARS	3	17	2	22
5	50 TO 59 YEARS	1	7		8
6	>59 YEARS		4		4
GRAND TOTAL		7	36	2	45
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	2	12		14
3	6 TO 10 YEARS	2	13	1	16
4	11 TO 20 YEARS	2	7	1	10
5	>20 YEARS	1	4		5
GRAND TOTAL		7	36	2	45

I FEEL THAT THE MILLENNIUM TOWER, LOCATED NEAR THE ENTRANCE TO THE PORT OF DURBAN, IS A SIGNIFICANT LANDMARK AND IMPROVES THE BEAUTY OF THE LANDSCAPE.

		STRONGLY AGREE	AGREE	UNCERTAIN	
1.1.		1	2	3	GRAND
1	MALE	14	18	4	36
2	FEMALE	5	4		9
GRAND TOTAL		19	22	4	45
1.2.		1	2	3	GRAND TOTAL
1	BLACK	3	1		4
2	ASIAN	4	6	1	11
3	COLOURED	2			2
4	WHITE	10	15	3	28
GRAND TOTAL		19	22	4	45
1.3.		1	2	3	GRAND TOTAL
1	<20 YEARS		1		1
2	20 TO 29 YEARS	3	1		4
3	30 TO 39 YEARS	3	3		6
4	40 TO 49 YEARS	8	11	3	22
5	50 TO 59 YEARS	3	4	1	8
6	>59 YEARS	2	2		4
GRAND TOTAL		19	22	4	45
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	5	9		14
3	6 TO 10 YEARS	8	7	1	16
4	11 TO 20 YEARS	4	3	3	10
5	>20 YEARS	2	3		5
GRAND TOTAL		19	22	4	45

RVEY OUESTIONNAIRE COUNT: WATEREBONT FACILITATOR

CAN DURBAN'S PORT ADMINISTRATORS BE MORE INNOVATIVE IN MATTERS RELATING TO WATERFRONT FACILITIES?

SURVEY QUESTIONNAIRE COUNT: WATERFRONT FACILITATORS 4.1.							
		YES	NO	DO NOT KNOW			
1.1.		1	2	3	GRAND TOTAL		
1	MALE	34	1	1	36		
2	FEMALE	9			9		
GRAND TOTAL		43	1	1	45		
1.2.		1	2	3	GRAND TOTAL		
1	BLACK	4			4		
2	ASIAN	11			11		
3	COLOURED	2			2		
4	WHITE	26	1	1	28		
GRAND TOTAL		43	1	1	45		
1.3.		1	2	3	GRAND TOTAL		
1	<20 YEARS	1			1		
2	20 TO 29 YEARS	3	1		4		
3	30 TO 39 YEARS	6			6		
4	40 TO 49 YEARS	21		1	22		
5	50 TO 59 YEARS	8			8		
6	>59 YEARS	4			4		
GRAND TOTAL		43	1	1	45		
1.4.		1	2	3	GRAND TOTAL		
2	1 TO 5 YEARS	12	1	1	14		
3	6 TO 10 YEARS	16			16		
4	11 TO 20 YEARS	10			10		
5	>20 YEARS	5			5		
GRAND TOTAL		43	1	1	45		

IF "YES", INDICATE HOW THE FOLLOWING CATEGORIES COULD BE IMPROVED IN TERMS OF INNOVATION:

	CUSTOMER	SUBSTANTIALLY	A LITTLE	DO NOT KNOW	
1.1.		1	2	3	GRAND TOTAI
1	MALE	30	5	1	36
2	FEMALE	6	3		9
GRAND TOTAL		36	8	1	45
1.2.		1	2	3	GRAND TOTAL
1	BLACK	2	2		4
2	ASIAN	9	2		11
3	COLOURED		2		2
4	WHITE	25	2	1	28
GRAND TOTAL		36	8	1	45
1.3.		1	2	3	GRAND TOTAL
1	<20 YEARS	1			1
2	20 TO 29 YEARS	1	3		4
3	30 TO 39 YEARS	6			6
4	40 TO 49 YEARS	19	2	1	22
5	50 TO 59 YEARS	7	1		8
6	>59 YEARS	2	2		4
GRAND TOTAL		36	8	1	45
1.4.		1	2	3	GRAND TOTAI
2	1 TO 5 YEARS	10	3	1	14
3	6 TO 10 YEARS	14	2		16
4	11 TO 20 YEARS	10	1		10
5	>20 YEARS	2	3		5
GRAND		36	8	1	45

IF "YFS".	INDICATE HOW	THE FOLLOWING	CATEGORIES C	OULD BE IMPROV	VED IN TERMS O	F INNOVATION:
			0/11 2001 120 0			

SURVEY QUESTIONNAIRE COUNT: WATERFRONT FACILITATORS 4.2.2.							
	PARKING ARRANGEMENTS	SUBSTANTIALLY	A LITTLE	DO NOT KNOW			
1.1.		1	2	3	GRAND TOTAL		
1	MALE	34	1	1	36		
2	FEMALE	7	2		9		
GRAND TOTAL		41	3	1	45		
1.2.		1	2	3	GRAND TOTAL		
1	BLACK	3	1		4		
2	ASIAN	9	2		11		
3	COLOURED	2			2		
4	WHITE	27		1	28		
GRAND TOTAL		41	3	1	45		
1.3.		1	2	3	GRAND TOTAL		
1	<20 YEARS	1			1		
2	20 TO 29 YEARS	3	1		4		
3	30 TO 39 YEARS	6			6		
4	40 TO 49 YEARS	20	1	1	22		
5	50 TO 59 YEARS	8			8		
6	>59 YEARS	3	1		4		
GRAND TOTAL		41	3	1	45		
1.4.		1	2	3	GRAND TOTAL		
2	1 TO 5 YEARS	12	1	1	14		
3	6 TO 10 YEARS	16			16		
4	11 TO 20 YEARS	9	1		10		
5	>20 YEARS	4	1		5		
GRAND TOTAL		41	3	1	45		

	RENT	SUBSTANTIALLY	A LITTLE	DO NOT KNOW	
1.1.		1	2	3	GRAND TOTAL
1	MALE	25	9	2	36
2	FEMALE	4	4	1	9
GRAND TOTAL		29	13	3	45
1.2.		1	2	3	GRAND TOTAL
1	BLACK	1	1	2	4
2	ASIAN	7	4		11
3	COLOURED	1	1		2
4	WHITE	20	7	1	28
GRAND TOTAL		29	13	3	45
1.3.		1	2	3	GRAND
1	<20 YEARS	1			101AL
2	20 TO 29 YEARS	1	1	2	4
3	30 TO 39 YEARS	3	3		6
4	40 TO 49 YEARS	16	5	1	22
5	50 TO 59 YEARS	7	1		8
6	>59 YEARS	1	3		4
GRAND TOTAL		29	13	3	45
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	8	3	3	14
3	6 TO 10 YEARS	12	4		16
4	11 TO 20 YEARS	7	3		10
5	>20 YEARS	2	3		5
GRAND TOTAL		29	13	3	45

IF "YES", INDICATE HOW THE FOLLOWING CATEGORIES COULD BE IMPROVED IN TERMS OF INNOVATION:

	SOCIAL RESPONSIBILITY	SUBSTANTIALLY	A LITTLE	DO NOT KNOW	
1.1.		1	2	3	GRAND TOTAL
1	MALE	34	1	1	36
2	FEMALE	7	2		9
GRAND TOTAL		41	3	1	45
1.2.		1	2	3	GRAND TOTAL
1	BLACK	2	2		4
2	ASIAN	10	1		11
3	COLOURED	2			2
4	WHITE	27		1	28
GRAND TOTAL		41	3	1	45
1.3.		1	2	3	GRAND
1	<20 YEARS	1			1
2	20 TO 29 YEARS	2	2		4
3	30 TO 39 YEARS	6			6
4	40 TO 49 YEARS	20	1	1	22
5	50 TO 59 YEARS	8			8
6	>59 YEARS	4			4
GRAND TOTAL		41	3	1	45
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	11	2	1	14
3	6 TO 10 YEARS	16	1		16
4	11 TO 20 YEARS	9	1		10
5	>20 YEARS	5			5
GRAND TOTAL		41	3	1	45

IF "YES", INDICATE HOW THE FOLLOWING CATEGORIES COULD BE IMPROVED IN TERMS OF INNOVATION:

SURVEY QUE	STIONNAIRE COUNT: V	VATERFRONT F	ACILITATO	DRS 5.1.			
		STRONGLY	AGREE	UNCERTAIN	DISAGREE	STRONGLY DISAGREE	
		AGREE	0	0		-	CDAND
1.1.		1	2	3	4	5	TOTAL
1	MALE		7	5	19	5	36
2	FEMALE	1	4	1	3		9
GRAND		1	11	6	22	5	45
IOTAL							
1.2		1	2	3	1	5	GRAND
1.2.			2	5	1	5	TOTAL
1	BLACK		4				4
2	ASIAN	1	4	2	4		11
3	COLOURED		2				2
4	WHITE		1	4	18	5	28
GRAND		1	11	6	22	5	45
TOTAL							
13		1	2	3	1	5	GRAND
1.5.			2	5	4	5	TOTAL
1	<20 YEARS		1				1
2	20 TO 29 YEARS		3			1	4
3	30 TO 39 YEARS		2	1	3		6
4	40 TO 49 YEARS	1	1	4	13	3	22
5	50 TO 59 YEARS		2		5	1	8
6	>59 YEARS		2	1	1		4
GRAND		1	11	6	22	5	45
TOTAL							
1.4.		1	2	3	4	5	GRAND
				-		-	TOTAL
2	1 TO 5 YEARS		5	1	6	2	14
3	6 TO 10 YEARS		3	2	10	1	16
4	11 TO 20 YEARS	1	1	3	4	1	10
5	>20 YEARS		2		2	1	5
GRAND		1	11	6	22	5	45
TOTAL							

I BELIEVE THAT THE PORT OF DURBAN EMPLOYS GOOD BUSINESS ETHICS.

	SINCE 2002.	ADMINISTRATION	AT THE PORT	OF DURBAN HAS	BECOME:
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SURVEY QUESTIONNAIRE COUNT: WATERFRONT FACILITATORS 5.2.						
		MORE TRANSPARENT	REMAINED THE SAME	LESS TRANSPARENT		
1.1.		1	2	3	GRAND TOTAL	
1	MALE	2	14	20	36	
2	FEMALE	1	4	4	9	
GRAND TOTAL		3	18	24	45	
1.2.		1	2	3	GRAND TOTAL	
1	BLACK	2	2		4	
2	ASIAN	1	4	6	11	
3	COLOURED		2		2	
4	WHITE		10	18	28	
GRAND TOTAL		3	18	24	45	
1.3.		1	2	3	GRAND TOTAL	
1	<20 YEARS		1		1	
2	20 TO 29 YEARS	1	2	1	4	
3	30 TO 39 YEARS	1	1	4	6	
4	40 TO 49 YEARS		10	12	22	
5	50 TO 59 YEARS		3	5	8	
6	>59 YEARS	1	1	2	4	
GRAND TOTAL		3	18	24	45	
			-	-		
1.4.		1	2	3	GRAND TOTAL	
2	1 TO 5 YEARS	1	5	8	14	
3	6 TO 10 YEARS	1	7	8	16	
4	11 TO 20 YEARS		5	5	10	
5	>20 YEARS	1	1	3	5	
GRAND TOTAL		3	18	24	45	

	ACCESSIBLITY TO	AVERAGE	POOR	
1.1.		2	3	GRAND TOTAL
1	MALE	17	19	36
2	FEMALE	4	5	9
GRAND TOTAL		21	24	45
1.2.		2	3	GRAND TOTAL
1	BLACK	1	3	4
2	ASIAN	5	6	11
3	COLOURED	2		2
4	WHITE	13	15	28
GRAND TOTAL		21	24	45
1.3.		2	3	GRAND TOTAL
1	<20 YEARS		1	1
2	20 TO 29 YEARS	2	2	4
3	30 TO 39 YEARS	2	4	6
4	40 TO 49 YEARS	11	11	22
5	50 TO 59 YEARS	5	3	8
6	>59 YEARS	1	3	4
GRAND TOTAL		21	24	45
1.4.		2	3	GRAND TOTAL
2	1 TO 5 YEARS	5	9	14
3	6 TO 10 YEARS	10	6	16
4	11 TO 20 YEARS	4	6	10
5	>20 YEARS	2	3	5
GRAND TOTAL		21	24	45

SURVEY QUI	ESTIONNAIRE COUNT:	WATERFRONT F	ACILITATORS 6.1.2.		
	ADEQUATE PARKING FACILITIES	GOOD	AVERAGE	POOR	
1.1.		1	2	3	GRAND TOTAL
1	MALE	1	12	23	36
2	FEMALE		4	5	9
GRAND TOTAL		1	16	28	45
1.2.		1	2	3	GRAND TOTAL
1	BLACK		2	2	4
2	ASIAN		5	6	11
3	COLOURED		1	1	2
4	WHITE	1	8	19	28
GRAND TOTAL		1	16	28	45
1.3.		1	2	3	GRAND TOTAL
1	<20 YEARS			1	1
2	20 TO 29 YEARS		2	2	4
3	30 TO 39 YEARS		1	5	6
4	40 TO 49 YEARS		8	14	22
5	50 TO 59 YEARS	1	3	4	8
6	>59 YEARS		2	2	4
GRAND TOTAL		1	16	28	45
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS		3	11	14
3	6 TO 10 YEARS		5	11	16
4	11 TO 20 YEARS		6	4	10
5	>20 YEARS	1	2	2	5
GRAND TOTAL		1	16	28	45

	HARBOUR VIEWS	GOOD	AVERAGE	POOR	
1.1.		1	2	3	GRAND TOTAL
1	MALE	15	19	2	36
2	FEMALE	4	5		9
GRAND TOTAL		19	24	2	45
1.2.		1	2	3	GRAND TOTAL
1	BLACK	2	1	1	4
2	ASIAN	6	4	1	11
3	COLOURED	1	1		2
4	WHITE	10	18		28
GRAND TOTAL		19	24	2	45
1.3.		1	2	3	GRAND TOTAL
1	<20 YEARS	1			1
2	20 TO 29 YEARS	1	3		4
3	30 TO 39 YEARS	4	1	1	6
4	40 TO 49 YEARS	8	14		22
5	50 TO 59 YEARS	4	3	1	8
6	>59 YEARS	1	3		4
GRAND TOTAL		19	24	2	45
1.4.		1	2	3	GRAND TOTAL
2	1 TO 5 YEARS	8	6		14
3	6 TO 10 YEARS	6	9	1	16
4	11 TO 20 YEARS	3	6	1	10
5	>20 YEARS	2	3		5
GRAND TOTAL		19	24	2	45

SURVEY QU	ESTIONNAIRE COUNT:	WATERFRONT F	ACILITATORS 6.1.4.		
	SUITABLILTY FOR YOUR BUSINESS	GOOD	AVERAGE	POOR	
1.1.		1	2	3	GRAND TOTAL
1	MALE	2	32	2	36
2	FEMALE		9		9
GRAND TOTAL		2	41	2	45
1.2.		1	2	3	GRAND TOTAL
1	BLACK		4		4
2	ASIAN		10	1	11
3	COLOURED		2		2
4	WHITE	2	25	1	28
GRAND TOTAL		2	41	2	45
1.3.		1	2	3	GRAND TOTAL
1	<20 YEARS		1		1
2	20 TO 29 YEARS		4		4
3	30 TO 39 YEARS		6		6
4	40 TO 49 YEARS	1	20	1	22
5	50 TO 59 YEARS	1	6	1	8
6	>59 YEARS		4		4
GRAND TOTAL		2	41	2	45
1.4.		1	2	3	GRAND TOTAL
2	1 10 5 YEARS		13	1	14
3	6 10 10 YEARS	1	15		16
4	11 10 20 YEARS		9	1	10
5	>20 YEARS	1	4		5
GRAND TOTAL		2	41	2	45

DURBAN'S PORT ADMINISTRATORS ARE CONSIDERATE TOWARDS WATERFRONT FACILITIES THAT MIGHT BE AFFECTED BY ALTERATIONS TO THE PHYSICAL CHARACTERISTICS OF THE PORT.

SURVEY QU	ESTIONNAIRE COUNT: V	VATERFRONT FAC	ILITATORS 6.2.		
		SOMETIMES	NEVER	DO NOT KNOW	
1.1.		2	3	4	GRAND TOTAL
1	MALE	12	22	2	36
2	FEMALE	5	4		9
GRAND TOTAL		17	26	2	45
1.2.		2	3	4	GRAND TOTAL
1	BLACK	3	1		4
2	ASIAN	6	4	1	11
3	COLOURED	1	1		2
4	WHITE	7	20	1	28
GRAND TOTAL		17	26	2	45
1.3.		2	3	4	GRAND TOTAL
1	<20 YEARS		1		1
2	20 TO 29 YEARS	3		1	4
3	30 TO 39 YEARS	2	4		6
4	40 TO 49 YEARS	7	15		22
5	50 TO 59 YEARS	2	5	1	8
6	>59 YEARS	3	1		4
GRAND TOTAL		17	26	2	45
1.4.		2	3	4	GRAND TOTAL
2	1 TO 5 YEARS	5	8	1	14
3	6 TO 10 YEARS	6	10		16
4	11 TO 20 YEARS	4	5	1	10
5	>20 YEARS	2	3		5
GRAND TOTAL		17	26	2	45

RATE THE SUITABILITY OF THE PORT OF DURBAN'S PHYSICAL CHARACTERISTICS TO WATERFRONT FACILITIES COMPARED TO OTHER PORTS ALONG THE EAST COAST OF SOUTHERN AFRICA.

SURVEY QUESTIONNAIRE COUNT: WATERFRONT FACILITATORS 6.3.						
		BETTER	SIMILAR	NOT AS GOOD	DO NOT KNOW	
1.1.		1	2	3	4	GRAND TOTAL
1	MALE	5	23	6	2	36
2	FEMALE		8	1		9
GRAND TOTAL		5	31	7	2	45
				-		
1.2.		1	2	3	4	GRAND TOTAL
1	BLACK	1	3			4
2	ASIAN	2	7	1	1	11
3	COLOURED		2			2
4	WHITE	2	19	6	1	28
GRAND TOTAL		5	31	7	2	45
1.3.		1	2	3	4	GRAND TOTAL
1	<20 YEARS		1			1
2	20 TO 29 YEARS	1	2		1	4
3	30 TO 39 YEARS	1	5			6
4	40 TO 49 YEARS	1	15	6		22
5	50 TO 59 YEARS	2	4	1	1	8
6	>59 YEARS		4			4
GRAND TOTAL		5	31	7	2	45
1.4.		1	2	3	4	GRAND TOTAL
2	1 TO 5 YEARS	2	10	1	1	14
3	6 TO 10 YEARS	2	12	2		16
4	11 TO 20 YEARS	1	4	4	1	10
5	>20 YEARS		5			5
GRAND TOTAL		5	31	7	2	45

SURVEY QUE	ESTIONNAIRE COUNT:	WATERFR	ONT FACILI	TATORS 7.1	.1.		
1.1.	COSTS	1	2	3	4	6	GRAND TOTAL
1	MALE	22	8	5		1	36
2	FEMALE	5	1	2	1		9
GRAND TOTAL		27	9	7	1	1	45
1.2.		1	2	3	4	6	GRAND TOTAL
1	BLACK			2	1	1	4
2	ASIAN	9	1	1			11
3	COLOURED	1		1			2
4	WHITE	17	8	3			28
GRAND TOTAL		27	9	7	1	1	45
1.3.		1	2	3	4	6	GRAND TOTAL
1	<20 YEARS			1			1
2	20 TO 29 YEARS	1		2	1		4
3	30 TO 39 YEARS	4		1		1	6
4	40 TO 49 YEARS	13	7	2			22
5	50 TO 59 YEARS	6	1	1			8
6	>59 YEARS	3	1				4
GRAND TOTAL		27	9	7	1	1	45
1.4.		1	2	3	4	6	GRAND TOTAL
2	1 TO 5 YEARS	8	1	4	1		14
3	6 TO 10 YEARS	9	3	3		1	16
4	11 TO 20 YEARS	6	4				10
5	>20 YEARS	4	1				5
GRAND TOTAL		27	9	7	1	1	45

1.1.	INFRASTRUCTURE	2	3	4	5	6	7	8	GBAND
		-	Ŭ	-	Ŭ	Ŭ	,	Ŭ	TOTAL
1	MALE		4	4		10	7	11	36
2	FEMALE	1		2	1	3		2	9
GRAND TOTAL		1	4	6	1	13	7	13	45
1.2.		2	3	4	5	6	7	8	GRAND TOTAL
1	BLACK						1	3	4
2	ASIAN		2	3	1	3	1	1	11
3	COLOURED	1		1					2
4	WHITE		2	2		10	5	9	28
GRAND TOTAL		1	4	6	1	13	7	13	45
1.3.		2	3	4	5	6	7	8	GRAND TOTAL
1	<20 YEARS							1	1
2	20 TO 29 YEARS	1		1				2	4
3	30 TO 39 YEARS					2	2	2	6
4	40 TO 49 YEARS		2	3		8	4	5	22
5	50 TO 59 YEARS		1	2		3		2	8
6	>59 YEARS		1		1		1	1	4
GRAND TOTAL		1	4	6	1	13	7	13	45
1.4.		2	3	4	5	6	7	8	GRAND TOTAL
2	1 TO 5 YEARS	1		1		4	1	7	14
3	6 TO 10 YEARS		1	3		6	3	3	16
4	11 TO 20 YEARS		3	2		2	2	1	10
5	>20 YEARS				1	1	1	2	5
GRAND TOTAL		1	4	6	1	13	7	13	45

SURVEY QU	IESTIONNAIRE COUNT: V	VATERFRON	T FACILITATORS 7	.1.3.						
1.1.	INNOVATION	1	2	3	GRAND TOTAL					
1	MALE	9	22	5	36					
2	FEMALE	4	4	1	9					
GRAND		13	26	6	45					
TOTAL										
12		1	2	3						
1.2.	BLACK	י ר	2	5						
1	BLACK	2	2		4					
2	ASIAN	1	/	3	11					
3	COLOURED	1		1	2					
4	WHITE	9	17	2	28					
GRAND		13	26	6	45					
TOTAL										
1.3.		1	2	3	GRAND TOTAL					
1	<20 YEARS	1			1					
2	20 TO 29 YEARS	1	2	1	4					
3	30 TO 39 YEARS	1	5		6					
4	40 TO 49 YEARS	8	12	2	22					
5	50 TO 59 YEARS	1	5	2	8					
6	>59 YEARS	1	2	1	4					
GRAND TOTAL		13	26	6	45					
1.4.		1	2	3	GRAND TOTAL					
2	1 TO 5 YEARS	4	8	2	14					
3	6 TO 10 YEARS	5	10	1	16					
4	11 TO 20 YEARS	3	5	2	10					
5	>20 YEARS	1	3	1	5					
GRAND TOTAL		13	26	6	45					
SURVEY QUESTIONNAIRE COUNT: WATERFRONT FACILITATORS 7.1.4.										
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1.1.	PHYSICAL CHARACTERISTICS	1	2	3	4	5	6	7	8	GRAND TOTAL
1	MALE	1	1	3	6	13	6	5	1	36
2	FEMALE					3	2	3	1	9
GRAND TOTAL		1	1	3	6	16	8	8	2	45
1.2.		1	2	3	4	5	6	7	8	GRAND TOTAL
1	BLACK				1	2		1		4
2	ASIAN		1	1		3	3	2	1	11
3	COLOURED						1		1	2
4	WHITE	1		2	5	11	4	5		28
GRAND TOTAL		1	1	3	6	16	8	8	2	45
1.3.		1	2	3	4	5	6	7	8	GRAND TOTAL
1	<20 YEARS							1		1
2	20 TO 29 YEARS					2	1	1		4
3	30 TO 39 YEARS				1	3	1	1		6
4	40 TO 49 YEARS	1		3	4	6	3	3	2	22
5	50 TO 59 YEARS		1		1	3	1	2		8
6	>59 YEARS					2	2			4
GRAND TOTAL		1	1	3	6	16	8	8	2	45
1.4.		1	2	3	4	5	6	7	8	GRAND TOTAL
2	1 TO 5 YEARS			1	1	7	2	3		14
3	6 TO 10 YEARS		1	1	3	5	2	3	1	16
4	11 TO 20 YEARS	1		1	1	2	3	1	1	10
5	>20 YEARS				1	2	1	1		5
GRAND TOTAL		1	1	3	6	16	8	8	2	45

SURVEY QL	JESTIONNAIRE COUNT:	WATERF	RONT FA	CILITATO	DRS 7.1.5.				
1.1.	QUALITY	2	3	4	5	6	7	8	GRAND TOTAL
1	MALE	1	7	12	10	3	2	1	36
2	FEMALE		1	3	1		3	1	9
GRAND TOTAL		1	8	15	11	3	5	2	45
1.2.		2	3	4	5	6	7	8	GRAND TOTAL
1	BLACK			1	2		1		4
2	ASIAN	1	1	2	3	1	2	1	11
3	COLOURED			1	1				2
4	WHITE		7	11	5	2	2	1	28
GRAND TOTAL		1	8	15	11	3	5	2	45
1.3.		2	3	4	5	6	7	8	GRAND TOTAL
1	<20 YEARS				1				1
2	20 TO 29 YEARS			2	1		1		4
3	30 TO 39 YEARS		1	4	1				6
4	40 TO 49 YEARS		6	7	6		2	1	22
5	50 TO 59 YEARS	1		2	1	3	1		8
6	>59 YEARS		1		1		1	1	4
GRAND TOTAL		1	8	15	11	3	5	2	45
					_				
1.4.		2	3	4	5	6	7	8	GRAND TOTAL
2	1 TO 5 YEARS		3	6	4		1		14
3	6 TO 10 YEARS		3	5	5	1	1	1	16
4	11 TO 20 YEARS	1	2	4	2		1		10
5	>20 YEARS					2	2	1	5
GRAND TOTAL		1	8	15	11	3	5	2	45

SURVEY QUESTIONNAIRE COUNT: WATERFRONT FACILITATORS 7.1.6.										
1.1.	REPUTATION	1	2	3	4	5	6	7	GRAND TOTAL	
1	MALE	4	4	10	11	5	1	1	36	
2	FEMALE		3	3	2	1			9	
GRAND TOTAL		4	7	13	13	6	1	1	45	
1.2.		1	2	3	4	5	6	7	GRAND TOTAL	
1	BLACK	2	2						4	
2	ASIAN	1	1	2	5	1	1		11	
3	COLOURED		1			1			2	
4	WHITE	1	3	11	8	4		1	28	
GRAND TOTAL		4	7	13	13	6	1	1	45	
1.3.		1	2	3	4	5	6	7	GRAND TOTAL	
1	<20 YEARS		1						1	
2	20 TO 29 YEARS	2	1			1			4	
3	30 TO 39 YEARS	1	1	2	1	1			6	
4	40 TO 49 YEARS		3	7	8	3		1	22	
5	50 TO 59 YEARS	1		4	1	1	1		8	
6	>59 YEARS		1		3				4	
GRAND TOTAL		4	7	13	13	6	1	1	45	
1.4.		1	2	3	4	5	6	7	GRAND TOTAL	
2	1 TO 5 YEARS	2	4	3	4	1			14	
3	6 TO 10 YEARS	2	2	5	5	2			16	
4	11 TO 20 YEARS			2	3	3	1	1	10	
5	>20 YEARS		1	3	1				5	
GRAND TOTAL		4	7	13	13	6	1	1	45	

SURVEY QUESTIONNAIRE COUNT: WATERFRONT FACILITATORS 7.1.7.										
1.1.	TRAINING	3	5	6	7	8	GRAND TOTAL			
1	MALE	1	5	13	11	6	36			
2	FEMALE	1	1	3	1	3	9			
GRAND		2	6	16	12	9	45			
TOTAL										
1.2.		3	5	6	7	8	GRAND TOTAL			
1	BLACK	2		2			4			
2	ASIAN		1	3	4	3	11			
3	COLOURED				2		2			
4	WHITE		5	11	6	6	28			
GRAND		2	6	16	12	9	45			
TOTAL										
1.3.		3	5	6	7	8	GRAND TOTAL			
1	<20 YEARS	-		1		-	1			
2	20 TO 29 YEARS	1		2	1		4			
3	30 TO 39 YEARS	1		2		3	6			
4	40 TO 49 YEARS		4	9	6	3	22			
5	50 TO 59 YEARS		2		5	1	8			
6	>59 YEARS			2		2	4			
GRAND TOTAL		2	6	16	12	9	45			
1.4.		3	5	6	7	8	GRAND TOTAL			
2	1 TO 5 YEARS	1	1	7	2	3	14			
3	6 TO 10 YEARS	1	2	5	7	1	16			
4	11 TO 20 YEARS		2	3	2	3	10			
5	>20 YEARS		1	1	1	2	5			
GRAND TOTAL		2	6	16	12	9	45			

SURVEY QUESTIONNAIRE COUNT: WATERFRONT FACILITATORS 7.1.8.										
1.1.	TURAROUND TIME	3	4	5	6	7	8	GRAND TOTAL		
1	MALE	1	3	3	2	10	17	36		
2	FEMALE	1	1	2	1	2	2	9		
GRAND TOTAL		2	4	5	3	12	19	45		
1.2.		3	4	5	6	7	8	GRAND TOTAL		
1	BLACK		1		1	1	1	4		
2	ASIAN	1	1	2		2	5	11		
3	COLOURED				1		1	2		
4	WHITE	1	2	3	1	9	12	28		
GRAND TOTAL		2	4	5	3	12	19	45		
1.3.		3	4	5	6	7	8	GRAND TOTAL		
1	<20 YEARS		1					1		
2	20 TO 29 YEARS				1	1	2	4		
3	30 TO 39 YEARS	1		1		3	1	6		
4	40 TO 49 YEARS			3	2	6	11	22		
5	50 TO 59 YEARS		2	1			5	8		
6	>59 YEARS	1	1			2		4		
GRAND TOTAL		2	4	5	3	12	19	45		
1.4.		3	4	5	6	7	8	GRAND TOTAL		
2	1 TO 5 YEARS		1	1	1	7	4	14		
3	6 TO 10 YEARS	1		2	1	2	10	16		
4	11 TO 20 YEARS			1	1	3	5	10		
5	>20 YEARS	1	3	1	T	T	T	5		
GRAND TOTAL		2	4	5	3	12	19	45		