

An Investigation of the Root Causes of Skill Shortage in the Maritime Industry

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Abstract: *The primary purpose of the study was to investigate the root causes of the skill shortage in the Maritime Industry, particularly at the port of Walvisbay in Namibia. The study utilised the qualitative research method. A non-probability sampling procedure drew a sample size of 16 managers from a population of relevant at NAMPORT employees and four more institutions. To achieve the study objectives, the researcher used extensive analysis of both local and global literature, analysing secondary data generated through complementary research outputs. It also analysed primary data, made through document analysis and in-depth interviews with key stakeholders and organisations across the Maritime sector. The study found that Namibia faces severe challenges of acquiring employees with the right skills in not only the field of Maritime but in other critical skill areas. The results show that NAMPORT, in particular, faces challenges to employ qualified Maritime skilled employees. Although the institutions' have the mandate of training the skilled workforce, the tertiary institutions' curriculums do not have Maritime programs geared towards producing Maritime specialists. The study further reveals that the critical skill areas required by NAMPORT were Port Shipping and Logistics Management, Marine Pilots, Maritime Lawyers, Marine Engineers and Seafarers. The internal strategies to curb the skill shortage were to seize opportunities to train students at the World Maritime Universities, providing tertiary bursaries, engaging women in maritime-related jobs and introducing the Catch-Them-Young Programme at the port. The external strategies were the signing of the twinning agreements between NAMPORT and other Maritime institutions, engaging development partners and the signing of the MoU on trade and development. The challenges facing the NAMPORT in acquiring skilled employees were the inability to attract graduates with relevant qualifications; females not being interested in joining Maritime jobs compared to men, and lack of Maritime skills among graduates from tertiary institutions. The study recommends that NAMPORT and the Government should initiate programs on how to attract females to enter the Maritime domain. There is a need for introducing specific strategies on how to attract youths into the Maritime fields. The introduction of particular strategies aiming at attracting graduates to join and pursue careers in the Maritime field will help in curbing the existing skill shortage. Both NAMPORT and the Government should avail study opportunities for students who have the interest to pursue careers in the Maritime field. The Government should invest in the training of students by the World Maritime University and provide bursaries meant explicitly for the students intending to pursue careers in the Maritime field.*

Keywords: Maritime, root causes, skill shortage, seafarers, harbour, rail network

Introduction

The essence of Maritime ports in developing countries is to facilitate more than one mode of transport. Transport aimed to simplify the process of getting goods from one place to another to minimise costs (Botha & Ittmann, 2008). Maritime ports serve as economic development conduits perceived as reagents for development to take place.

Furthermore, indicators such as employment creation, value-added tax, revenue and return on investments, serve as benefits of port development (Masawi, 2016). In the Namibian case, additional jobs created with the construction of the new terminal is eminent. More jobs created both inside the port and within the port communities such as the stevedores, transport service providers, ship chandlers and freight forwarders. The creation of employment will, in turn, increase the volumes of cargo service and trade (Masawi, 2016).

Ports constitute critical nodes in complex global logistics chains, which facilitate international commodity trade. Ports are often central Hubs of value-adding services that are essential for economic expansion and growth (Gekara, 2010). In many developed countries, such as Singapore, Dubai and South Korea, ports as Hubs, have transformed into port cities with a high concentration production, logistics and related services. Just like Namibia, countries that possess the competitive advantage of being strategically located rely highly on Maritime international transportation for their imports and exports. As a result, seaports become very important (Gekara, 2010).

Additionally, Namibia has the goal of becoming an international logistics Hub that aimed at improving international trade and ultimately promote economic growth. It has, however, evident that Namibia faced with a severe challenge of acquiring adequate skills that are required to run and manage the Walvisbay port (NAMPORT) effectively. One of the most critical areas that Namibia focus on is to attract corporate functions, that can serve the Southern African Development Community (SADC) and benefits to the country as a whole (Savage & Fransman, 2014).

Namibia adopted a long-term plan, namely, Vision 2030, in 2004, which aimed at planning the future of the country. The macro-economic framework and the long-term targets on the Namibia development are all set out in Vision 2030. The strategic plan outlines how the country will have transitioned into an industrialised nation to reach the level where it can also compete with other countries, globally. Namibia has to develop the human capital and strengthen the capacity of training institutions within if it has to realise this ambitious goal. This action is necessary for absorbing the labour force required to meet the demands of the economy and to address the human resources skills shortages across all other sectors (National Human Resources Plan, 2015).

The National Human Resources Plan (2015) further outlined that there is indeed a gap in acquiring professional skills to occupy several key specialised positions in various industries. The report did not document skills shortages in the logistics field, much less the Maritime sector, even though logistics is a key priority area for the future development of the country. Furthermore, the Annual Economic Development Report (2012) confirms that Namibia faces a shortage of professionals. Thus, more efforts made to ensure that the deficiency does not worsen soon, taking into consideration that there are no skilled and experienced people in these jobs. Since logistics is a new concept in Namibia, there have been several challenges that the industry faced. One of the challenges faced in acquiring workers who possess the adequate skills required to manage logistics Hubs effectively is that skilled people are not available in the country (National Planning Commission, 2012). To maintain the sustainability of the ports, and the effective operation of the logistics Hub, people with adequate skills, need to be recruited from wherever they are. The Government of the Republic of Namibia, at independence, realised that there were inadequate human resources in the country, which has resulted in the stagnation of the country's economic growth (National Planning Commission, 2012).

The Government has therefore placed a strong emphasis on the need to acquire quality human capital because the country has been importing skilled and experienced human capital to fill the gaps existing in the labour market [National Human Resources Development Plan (HRDP), (2015)]. Currently, Namibia is experiencing problems with finding people with the relevant skills to occupy professional positions. Namibia has a Gini coefficient of 0.6, rating fourth highest in the world. This circumstance means that Namibia has a very high rate of inequality. The gap between the rich and the poor people is vast. This gap makes it very difficult to address the socio-economic challenges it faces.

There is more emphasis placed on the logistics sector in the Fifth National Development Plan (NDP5). The fourth phase of the National Development Plan was the roadmap to the future development of Namibia (National Planning Commission, 2012). The logistics sector, as identified, is one of the possible economic areas that aim at addressing the type of economic structure that Namibia envisages to have in 2030 (National Planning Commission, 2015).

As Namibia plans to become an International Logistics Hub for the SADC countries, that caters for the landlocked SADC states, this involves the expansion of the port of Walvis Bay, the establishment of warehouses for repackaging and other services in strategic towns of the country. The aim of the Hub is not only to enhance trade but also to provide direct and indirect employment opportunities through the establishment and development of these Hubs. The port of Lüderitz will continue to play a strategic role in the growth of the economy of the south of Namibia and the Northern Cape Province of South Africa. Despite this, the port of Walvisbay will not have reduced roles and functions.

Problem statement

To run the affairs of the international logistic Hub and meet the growing demands of countries that depend primarily on the Hub's services, Namibia needs to have competent technical skills and experienced personnel in the field of Maritime. This initiative will enable the smooth running of operations of the International Logistics Hub and meet the growing demands of the neighbouring landlocked countries. Currently, there is evidence of skills shortage in the Maritime industry (Annual Economic Development Report, 2012). The Annual Economic Development Report (2012) elaborated that the skills deficit problem the country faces with is perceived as an inability for the nation to produce skilled graduates with the right type and quality of skills.

Similarly, Savage & Fransman (2014) highlighted that although awareness of turning Namibia into a logistics Hub has increased over the past years, there is still very little understanding on the skills requirements of such a logistics Hub. The skills shortage in the field of Maritime is a considerable barrier to the successful implementation of Hub operations. NAMPORT failed to acquire people with the required skills because the applicants for jobs do not have the necessary skills that the Institution requires or at times, there were no applicants at all (NAMPORT, 2014). Currently, the root causes of skills shortage and the strategies used by NAMPORT to address the Maritime skills shortage are not known. Moreover, the envisaged conclusion is that with the expansion of the port, the specific skills gap will increase and thus put pressure on the port operations. Therefore, the operational thrust concerning the skills shortage requires an intensive study.

Research objectives

The objectives of the study are:

- To assess the root causes of the skills shortage in the field of Maritime.
- To explore the challenges experienced by NAMPORT in getting skilled people in the Maritime field.
- To find out the specific Maritime skills needed at NAMPORT.

- To investigate the strategies that NAMPORT used to address the skills shortage in the Maritime field.

Literature review

Savage and Fransman (2014) suggest that continuous Education and a high level of expertise is one of the most critical requirements for the successful implementation of the Logistics Hub. They further indicated that for any logistics Hub to run effectively and successfully, addressing the issues relating to the development of the Hub is crucial. The latter matters include port infrastructure and human resources. Therefore, skills in the Maritime field play a significant role in managing Maritime affairs, specifically at a port that plans to expand its services to cater for the entire SADC region (for example the case of Namibia).

Additionally, Savage and Fransman, (2014) report the awareness of turning Namibia into a logistics Hub has increased over the past years. However, there is still very little understanding of the concepts of logistics and Maritime entail and what skills requirements needed to manage a Logistics Hub and Maritime port effectively. Currently, Namibia faces a shortage of skills within the field of Maritime, and this is a considerable barrier to the successful establishment of the Hub.

Skills shortage

Skill refers to the ability to perform a task towards a predefined level of competence. Skills shortage, on the other hand, refers to the situation where people with specific skills are not sufficient or enough to meet the demand for particular job requirements. Furthermore, the skills shortage noted when an employer finds it extremely challenging to acquire persons with specific skills. Skills shortage can vary in nature and the cause (Frogner, 2002).

Similarly, Junankar (2009) defines a skill shortage as a situation where the demand for a particular type of skill exceeds the supply, at the current wage. Frogner (2002) illustrates the importance of skills shortages. He stressed the fact that skills shortages are essential because of the potential impact that they have on crucial macroeconomic variables. It is vital noting d that skills shortages potentially affect various economic measures (variables) such as the economic output (GDP), employment and earnings. The reliable measurement of skills shortage done through the increase in wage allocation and the mismatch between supply and demand in the human capital made through conducted surveys (Frogner, 2002).

Maritime port

The Maritime industry revolves around the notion that the life cycle of the Maritime, transport vessels, covers different types of transport. These are cargo including containers, general freight, tankers, bulk speciality ships), coastal support (including harbour tugs and pilotage), passengers (including cruise ships, yachts ferries and glass-bottom boats), fishing (including large vessels, canoes), government fireboats and coast guards), merchant navy, tugs and workboats, marine search and rescue, leisure marine and ports. The other components of the Maritime industry are port infrastructure and logistical operations. A significant catalyst that significantly contributes to the growth and development of the Maritime Industry is mainly the development of the global supply chain and logistics management research.

Maritime logistics

Jorgensen (2007) defines Maritime logistics as an integrated centre for transshipment via sea, collection, distribution and storage of goods. Furthermore, Maritime logistics identified and described as the primary means of transporting parts and finished products on a global scale, via the sea. According to Eon-Seon Lee (2009), the concept of Maritime logistics emanates from the Maritime transportation studies that encapsulated in the logistics context. Furthermore, shipping, port/terminal operating and freight forwarding described as the key players of Maritime transportation that make up the entire Maritime logistics system.

Strategies addressing Maritime skills shortage

The Government of Queensland (Australia) developed an initiative that responds to the skills shortages in both high and low unemployment situation. (Eddington, 2012) stipulates that the response as demonstrated through a set of Skills Formation Strategies. The strategy based on a critical approach to meeting the needs of the industry and the supply of skilled labour. Furthermore, the workers, subsequently receive training through the Vocational Education and Training system (VETs). The rationale behind the concept stemmed on VET provision, which aimed at increasing qualification levels by providing more training, improving access for difficult-to-engage cohorts and developing programmes tailored to specific priorities (Eddington, 2012).

Functions of a Maritime port

As a function, Maritime ports play the supervisory roles of contract compliance and performance in all aspects of services within the Port Authority terminals, including berth assignments, cargo operations and terminal warehouse operations. It is responsible for establishing policies, procedures and guidelines for the appointment and effective utilisation of Port Authority (Botha & Ittmann, 2008). Furthermore, a Maritime port possesses a function to interpret, explain and enforce regulations and rules on the utilisation of port facilities and cargo operations. It also coordinates the terminal operators, stevedores, ship agents and local government

authorities on a needs basis to respond to customers' needs on the resolution of disputes and interpretation of policies and regulations. Another function of the ports involves discharging or loading cargoes from vessels and thereby preparing the shipments for delivery to customers. Additionally, port operations involve the aspect of value-addition of the services, which includes warehouses, storage, and packing the arrangement of modes of transportation inland (Botha & Ittmann, 2008).

Occupations associated with the Maritime industry

The Maritime Industry has the potential to create employment opportunities for a large number of people with different skills and experiences. The industry requires people with various job knowledge and skills to manage Maritime ports effectively. However, the World Economic Forum (2011-2012), revealed that it is difficult to recruit employees in occupations that are associated with Maritime. The study conducted by the World Economic Forum found that there is a gap in the Logistics and Supply Chain in terms of labour supply in the labour market. The report then made recommendations to the various governments on how they would accordingly address these issues (World Economic Forum, 2011-2012). The report emphasised the fact that professional skills such as Maritime Lawyers, Economists and Accountants, Fork Operators, Freight Compilers and Schedulers are required to carry out these functions.

The shortage of seafarers is a global issue because of the skills required in the Maritime field (Institute of Employment Research, 2005). Additionally, based on the nature of the Maritime sector, seafaring has been perceived as the point to start when beginning a career in the Maritime industry. Seafaring skills and experience viewed as direct use and essential for a range of Maritime shore-based jobs, including, pilotage, marine surveying terminal (or cargo operation), port operations, ship management, marine administration and Maritime Education and training. For instance, the European Union has indicated that sea-related employment provides about 5 million jobs across Europe. Of the above, 70% is onshore, in shipping, shipbuilding and related services and fields, ranging from cargo handling and coastal tourism to offshore energy fields, fishing and aquaculture.

Root causes of the skills gaps in the field of Maritime

Previous literature has recognised vital issues that have posed obstacles for the effective operations and development of the logistics Hub in Namibia. According to Savage and Fransman, (2012) such examples include the absence of an active rail network, the limited capacity of the existing harbour, lack of qualified staff, poor education and training programmes, racial issues, inadequate legislation, corruption issues, cross-border & customs issues and transport costs. They elaborated on various reasons why the logistics industry has been facing challenges, in terms of further development and on current operations. The lack of qualified staff, Education and training identified as some of the main contributory factors that are causing failure within the logistics sector. Literature does not specify; however, the different kinds of skills that are required to operate effectively in the logistics industry.

Trumper (2006) identified the possible factors affecting junior high school students' interest in physics. His findings were, namely, gender, attitude, lack of knowledge of the subject, personality traits and curriculum variables. Trumper (2006) stressed that the most important variable related to the attitude that the pupils have towards science is 'gender'. Studies by Francis and Greer (1999), Jones et al., (2000) and Menis, (1983) have also shown that males showed more interest in the science field as opposed to the females.

The MacKinnon Partnership report (2009) revealed that lack of experience is another cause of skills shortage in any institution. It further shows that, of the people that participated in the survey, 80% of them indicated and agreed that the skills shortage was mainly caused by having too many inexperienced employees in the workplace. The report also revealed that failure to develop and train staff members are other contributory factors to the skills shortage in the Maritime sector. Reference made to the leisure sub-sector, whereby many people, especially the youth, do not see a future in this sector. They usually take up the job straight after university, not having acquired a lot of experience resulting in them staying in the position for just a little while and then leaving again (MacKinnon, 2009).

Another major contributory factor for skills shortage is that in the fishing industry, it is a pre-requisite for everyone to undergo training in Health and Safety. However, this particular training takes place only once. This state of affair has created a problem because; any person who underwent training in the 1990s, for example, will inevitably now have a skills deficiency in Health and Safety. This situation means that too much time has passed since the person was last trained, and this makes this person redundant concerning health and safety (Mackinnon, 2009).

Research methodology

This study is anchored on the constructionist paradigm and applied the qualitative method. The constructionist paradigm propounds that knowledge is constructed mentally through interaction with reality (Blumberg et al., 2011; Sekaran & Bougies, 2013). This study adopted a single case research study design. The quantitative data presents demographic findings. The study intended to

explore the root causes of skills shortage in the Maritime industry, specifically at the port of Walvis Bay in Namibia. Given the dearth of information published on the root causes of skills shortage in the Maritime sector, the research design was primarily explorative, intending to establish a focus for future work (Blumberg et al., 2011).

The researcher used in-depth interviews and survey interview instruments to collect data. The interviews conducted made it much easier for the researcher to acquire the actual answers to the respondents' take on the subject matter. After that, the researcher conducted an in-depth study on the topic by distributing a survey interview questionnaires to the respondents and conducting verbal interviews with them. The used research method was convenient and reliable in terms of acquiring information from the respondents. It is easier for the researcher to make follow-ups on structured interviews in the event where the information provided in the first instance was not clear.

Furthermore, it makes it easier for the researcher to investigate further on the respondents' responses (McNamara, 1999). The interviews conducted, made it much easier for the researcher to acquire the accurate answers from the respondents on the subject matter. The used method of study was convenient and reliable in terms of obtaining information from the respondents. It was comfortable for the researcher to make follow-ups on structured interviews in the event where the information provided in the first instance was not clear. Furthermore, it makes it easier for the researcher to investigate further on the responses provided by the respondents (McNamara, 1999).

The selected population targeted officials that are responsible for Maritime-related activities within various institutions such as Government institutions and parastatals or State-Owned Enterprises (SOEs). The researcher identified four institutions to participate in the study whereby only four senior officials from each Institution were selected to form part of the study. The institutions that participated in the study were, NAMPORT, National Planning Commission, Bank of Namibia and the Ministry of Works and Transport (Directorate of Maritime Affairs).

The researcher used non-probability sampling design because it suits the nature of the study, which is explorative and qualitative. The institutions were selected based on their stake in the subject matter, the Maritime field. The key respondents were selected based on the positions they held within the identified institutions. The number of respondents was limited to only four officials because the rest of the officials were below management, and they did not necessarily have the information required for the study. Finally, the number of respondents that participated in the study totalled to sixteen¹⁶.

Data collection took place by arranging appointments with the selected respondents to have face-to-face interviews. The interviews were approximately an hour-long per respondent, and they were held based on the preferred sites of the respondents. For some, the meeting took place at their residence, while for others, it took place at their work (offices). The interviews conducted on a one-on-one basis. The interviewer took detailed notes and tape-recorded the discussions for further analysis. The data collected was presented by using tables, figures and qualitative summaries.

April (2005) refers to trustworthiness and credibility as the authenticity of results and the extent that the respondents are protected. It thus implies that the results of this study conform to previous studies and tally well with Maritime theories. Concerning trustworthiness, the researcher assured the respondents that the information was going to be handled confidentially and used for this study only.

Findings and discussions

The results show that most of the respondents to the survey were male, which implied that Maritime might indeed perceive as a male-dominated field. Aggrey (2000) found that females are traditionally at home taking care of the children and their households, while the men were out making a living for their families. Equally, Baya (2014) substantiated this by exhibiting possible reasons why more males than females mostly dominate the industry. The gender division could also be as a result of the nature of the Maritime profession, which involves heavy-duty activities and movement from one point to another. In this regard, traditionally, women have not been partly due to the physicality of the work. Furthermore, findings demonstrate that the leading causes of skills shortage in the Maritime field were gender, religion, tradition and cultural beliefs and age restriction.

Respondents gender

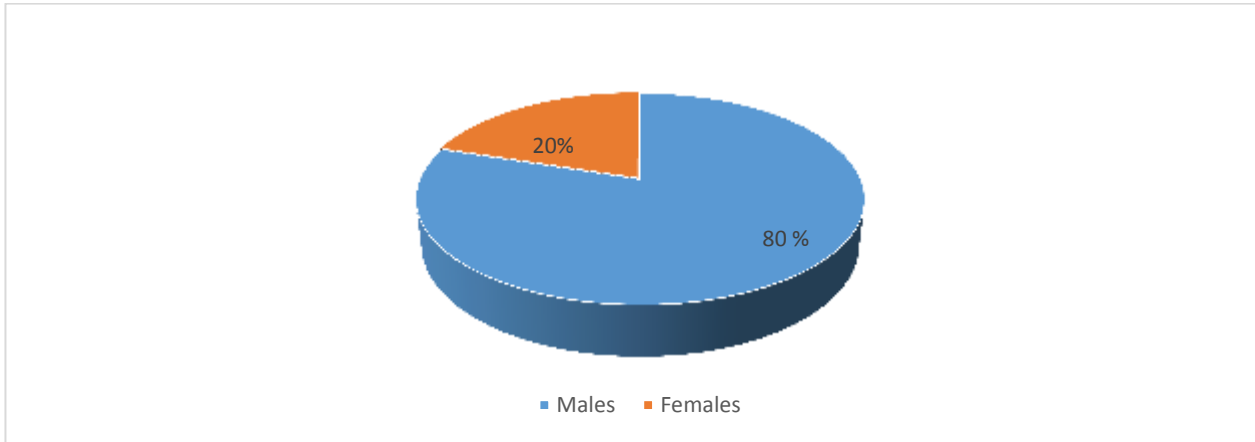


Figure Error! No text of specified style in document..1: Respondents' gender

Figure 4.1 displays the results of the respondents' gender. The results show that 80% of the respondents were males, while only 20% of the respondents were females. This finding might imply that Maritime people perceived as a male-dominated field. This finding corresponds with the viewpoint of Aggrey (2000) that females are traditionally at home taking care of the children and their households, while the men are out making a living for their families. The gender division could also be as a result of the nature of the Maritime profession, which involves heavy-duty activities and movement from one point to another. In this regard, traditionally, women have not been partly due to the physicality of the work. Baya (2014) claims that various social settings and intimidation exacerbate gender inequalities that exist in the Maritime industry by their male counterparts. He further claimed that the only way to rectify these inequalities is to develop educational competencies that can motivate women to enter the industry.

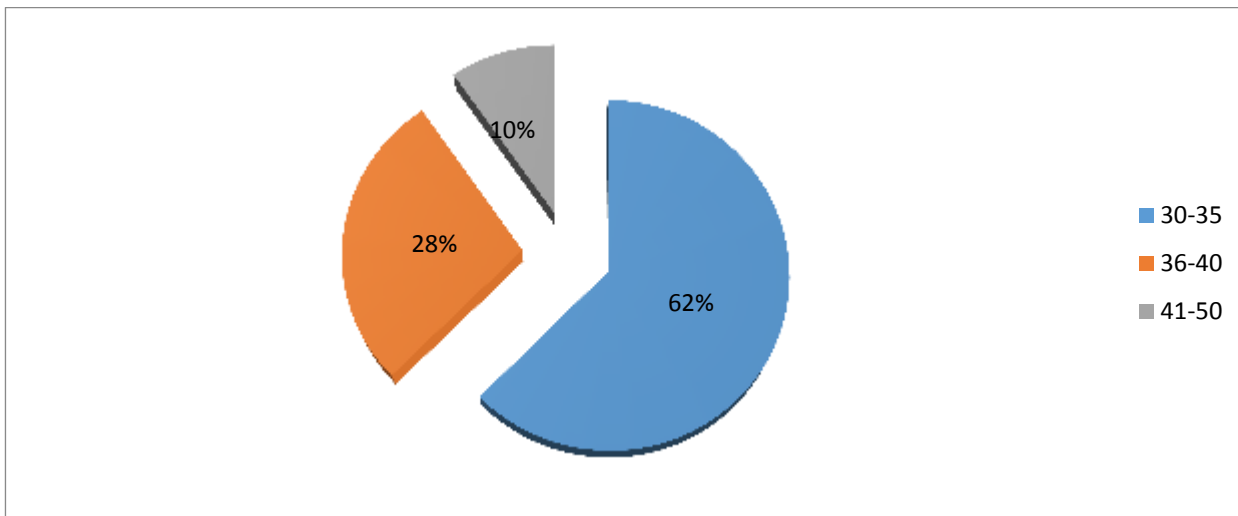


Figure Error! No text of specified style in document..2: Respondents' age

The researcher classified respondents' age into three categories, namely; ages from 30-35; 36-40 and 41-50, respectively. With regards to the age of the respondents, as exhibited in figure 4.2, 62% of the respondents were in the age group of 30-35, while 28% of the respondents were in the age group of 36-40 and 10% of the respondents were in the age range between 41-50 years. The data further illustrates that the youth (those below 30 years of age) were not actively involved in the Maritime field, as they were not occupying positions related to the Maritime industry.

Name of the Institution and mandate

The respondents who participated in the study were selected based on the areas they occupied within their respective institutions. The classification of respondents was necessary because senior officials were believed to have a better understanding and knowledge on the subject matter and were likely to provide a broader spectrum of the information on the subject. The positions held by the respondents were Deputy Directors, Directors, National Development Advisors, Marine Engineers, and Marine Pilots.

Table 4.1: The Mandates of the Institutions

Name of Institution/Division	The mandate of the Institution
1. Bank of Namibia (BoN)	To conduct economic research and provide policy advice to maintain and promote macroeconomic stability and financial sector development in the interest of economic growth and development.
2. National Planning Commission (NPC)	To spearhead the course of national development.
3. Ministry of Works and Transport (MWT)	To ensure infrastructural development and maintenance of transport and state asset management through excellence and prudent management of resources.
4. Namibia Ports Authority (NAMPORT)	To ensure the timely expansion of the port of Walvis Bay as well as maintaining and upgrading facilities.

The document analysis and responses are in table 4.1. The results show that the outlined institutions identified to provide the information required for the study, were the National Planning Commission, Ministry of Works and Transport, Department of Maritime Affairs, the Bank of Namibia, Research Department and NAMPORT. The mandates of these institutions served as a guide on the roles they play in the Maritime field.

It was evident that the Bank of Namibia (BoN) does not deal with Maritime matters. This Institution has a Research Department that carries out studies related to skills shortages in the labour market in general and also identify the specific sectors that in need of particular expertise. The role of the Bank of Namibia (BoN) in the study was to provide information from a research perspective, particularly on the skills shortage in the Maritime field.

The data collected based on the information that respondents possessed and the nature of institution mandates within which employed. Although the bank did not carry out any study related to the skills shortage on the Maritime field, in particular, it gave a perspective of the existing gap in skills regarding the Maritime sector. Moreover, the managers strongly agreed that based on the already existing shortage of skills in Namibia within other industries, Maritime skills are not an exception. Maritime skills are one of the many skills that Namibia lacks and addressed them as a matter of urgency.

The role of the Directorate of Maritime Affairs, under the Ministry of Works and Transport, was to provide Maritime information. The latter included ensures the safety of life and property at sea, preventing and combating pollution of the marine environment by ships and the promotion of Namibia's Maritime interests. The relevance of the Directorate of Maritime lies in providing insight on Maritime status in the country. Furthermore, The Directorate role is to ensure the safety of vessels and carrying out surveys, inspections and certify Namibian Vessels, execute port state and flag state control, conduct registration and certification of Namibian Seafarers and to register Namibian Vessels. This information is of vital importance to the study because it gives the reader an understanding of all the various activities that take place at the port and how the Maritime affairs directorate comes into play.

In this study, NAMPORT provided an insight into functions and to analyse the kinds of skills required to run and manage the port effectively. The critical roles of NAMPORT were to manage the port to cater for current trade needs of the country, to develop the port's future demands and to contribute to the competitiveness of the SADC region's trade (through the efficient, reliable and cost-effective supply of port services). The other roles of NAMPORT include the facilitation of economic growth in Namibia by enabling regional development and cross-border trade and the promotion of the ports of Walvisbay and Lüderitz as preferred routes for sea-borne trade between SADC, Europe and the Americas. The other roles of NAMPORT are the assistance with the development of cross-border trade, the minimisation of the impact of port operations on the natural environment by applying International Organization for Standardization ISO 14001 and the increase in support of the communities within which Namibia is operating.

Based on the description above, it was evident that the responses provided about the required skills, go hand-in-hand with the mandate and role of the port. Port shipping and logistics management, Maritime pilots, Maritime lawyers, Maritime engineers and seafarers are the most critical skills required to carry out the mandate of the port effectively.

Challenges in acquiring skilled employees

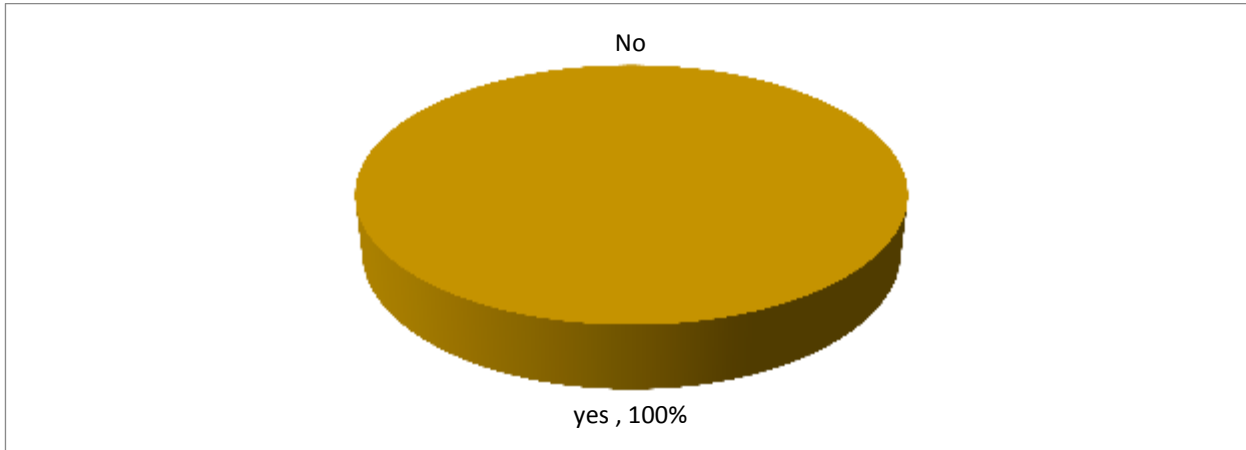


Figure Error! No text of specified style in document..3: NAMPORT facing difficulties in obtaining qualified employees

The respondents responded to question respond to whether NAMPORT faces the challenge of getting skilled employees in Maritime. According to the responses displayed in figure 4.3, all of the respondents (100%) of the respondents indicated that NAMPORT faces challenges in acquiring skilled employees. It is evident from figure 4.3 that there indeed is a shortage of skills not only at NAMPORT in the field of Maritime. Having come from different institutions with different mandates places the respondents in a position to determine whether NAMPORT and the country face challenges in acquiring skilled labour force in the Maritime field. According to the study findings, the challenges faced NAMPORT in obtaining the appropriate skills in the Maritime industry are failing to get highly skilled experts that can effectively operate the port, the slow rate of skills transfer from Non-Namibians to Namibian nationals. Lastly, a small percentage of women have an interest in the Maritime field. These challenges tally to Aggrey's (2000) argument that Maritime is generally perceived to be a male type of industry, which has then lead to the females becoming discouraged in applying for positions in this field. This fact poses a challenge for the Institution to acquire the right skills because of not many people, especially women applying for vacant positions. Another reason adding to this void is that Maritime is a new concept in the Namibian and people are not that much aware of what it entails and even its existence (Baya, 2014).

Critical skills in the Maritime field that required by NAMPORT

The skills shortage was measured by in-depth interviews together with guiding survey interview questionnaires. The interview meetings were arranged explicitly with senior officials from Government offices, State-Owned Enterprises and the Bank of Namibia, respectively. Six themes derived from the interview responses are as follow; Port Shipping and Logistics Management, Marine Pilots, Maritime Lawyers, Marine Engineers and Seafarers. Table 4.2 and Figure 4.4 show the themes and the importance of the skills on a five-point scale where one being less critical or important and point five being very critical or very important.

Table 4.2: Matrix of critical Skill Areas

<u>Themes</u>	<u>Critical skill areas</u>				
	<u>Less Critical (1)</u>	<u>Somewhat less critical (2)</u>	<u>Average (3)</u>	<u>Somewhat critical (4)</u>	<u>Very critical (5)</u>
Port Shipping and Logistics Management				✓	
Marine Pilots					✓
Maritime Lawyers					✓
Marine Engineers					✓
Seafarers				✓	

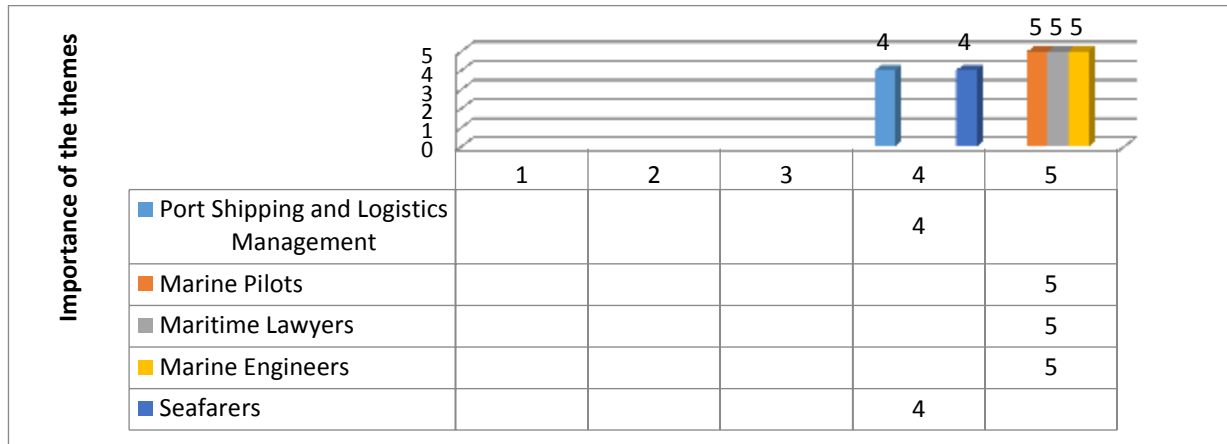


Figure Error! No text of specified style in document.4: Critical skills required by NAMPORT

Figure 4.4 and Table 4.2 show the frequencies of the critical skills needed by NAMPORT. A matrix table of a five-point scale presented the findings on essential skills required by NAMPORT. The results show that the vital skills of port shipping and logistics management, marine pilots, Maritime lawyers, marine engineers and seafarers, were all rated as critical. However, the respondents rated the port shipping and logistics management and seafarers' skills to be somewhat significant. This finding has quite a high rating and is equally considered necessary. The interview responses revealed that filling the Institution with the identified critical skills would result in the port being more attractive, and creating an enormous potential for the country. The country will have more trading opportunities, generate more employment opportunities, become competitive and ultimately attaining economic growth. Other skills that were mentioned by the respondents though not significantly substantial but crucial for the port to acquire were; Maritime economists, Maritime accountants, safety assurance officers, and quality assurance officers. The respondents indicated that the rate at which Port Shipping and Logistics Management required was somewhat critical at NAMPORT. This outcome is not surprising since Port Shipping and Logistics Management is concerned with the transportation of cargo (goods) between seaports by ships. Port shipping and Logistics Management was vital because it is essential to the development of the economic activities as business transactions and trade need ships to transport cargoes from the production place to the consumption place (Lun, 2010).

The respondents considered marine pilot as another critical skill that is required to manage the operation of the Walvisbay port effectively. This notion tallies with the role of marine pilots at Maritime ports. According to Necander (2014), Maritime pilots have the task of guiding safety vessels between ports, to protect the environment and efficiently run the harbour. Furthermore, pilotage is vital for the efficient running of a port, especially when the port is expanding in size and increasing traffic. Since NAMPORT is in the process of developing the Walvisbay port, the respondents indicated that it is critical to acquire marine pilots that can effectively carry out the operations of the harbour (Necander, 2014).

According to the respondents, Maritime law was a very critical skill required by NAMPORT. Maritime law also referred to as admiralty law, is a fundamental branch of law that regulates commerce and navigation on the seas or other navigable waters (Fox, 1919). Simply placed, Maritime law is the law that governs all activities that are taking place at sea. It was thus, not surprising that respondents have identified this skill to be very critical to the NAMPORT. In essence, the role of marine lawyers is to guide, protect, and defend the operations of logistics cooperates. Furthermore, Marine law is significant because it governs the relationship between private entities that operate vessels on the ocean (Fox, 1919).

Marine engineering was rated and identified as another very critical skill that the port required to have to operate effectively. Marine engineers are responsible for the building of oil rigs, pump oil from underneath the sea and underground. The Marine engineer is a very critical skill because the world highly relies on fossil fuels, and it is the responsibility of the marine engineers to advise on how to go about it. Furthermore, marine engineering would be significant at a port for the building of large, efficient, and fast cargo, tankers and other commercial ships (Nakazawa, 2000). Marine Engineers are also responsible for the safe, efficient operation as well as the operation complying with environmental protection. In relation expansion of new port in Walvisbay, the Marine engineering skill ensures that the environmental protection rules are understood and conformed as documented (Nakazawa 2000).

The respondents identified another skill that is somewhat critical to the efficient operation of the port to be seafarers. Seafarers play a vital role in the global economy of the future as well as in the global maritime industry. Furthermore, a healthy and safe working environment must secure a continuous influx in the sector (Danish Maritime Days, 2014). The global nature of the Maritime industry puts a significant demand for the shipping companies to ensure a safe and healthy work environment for all seafarers. It is, therefore, the role of the seafarers on board of the ships to ensure the shipping industry's dominance in World Trade.

The results regarding the required skills at NAMPORT show that the port needs skilled employees in port shipping and logistics management, Marine pilotage, Maritime lawyers, Marine engineers and Seafarers skills. These findings imply that the skills gap that exists within the Maritime industry exacerbated by the fact that the Institution cannot seem to acquire the skills that are also considered very critical at the port (Namibia Training Authority, 2014; Danish Maritime Days, 2014; Frogner, 2002).

Internal strategies used by NAMPORT to acquire skilled and experienced employees

Table 4.3 presents the findings of the importance of the themes identified five themes which were rated to be extremely important. The results reveal the internal strategies used by the NAMPORT to address the skills shortage in the Maritime field. The themes that emerge from the data were study opportunities, training of students by the World Maritime University, tertiary bursaries, engagement of women in Maritime jobs and the Catch-Them-Young Program.

Table 4.3: Matrix of internal strategies used by NAMPORT to acquire skilled employees

Themes	Importance of the themes				
	Less important (1)	Some What important (2)	Average (3)	Very important (4)	Extremely important (5)
Study Opportunities					✓
Training of students by the World Maritime University					✓
Tertiary bursaries					✓
Engagement of women in Maritime jobs				✓	
Catch-Them-Young Programme			✓		

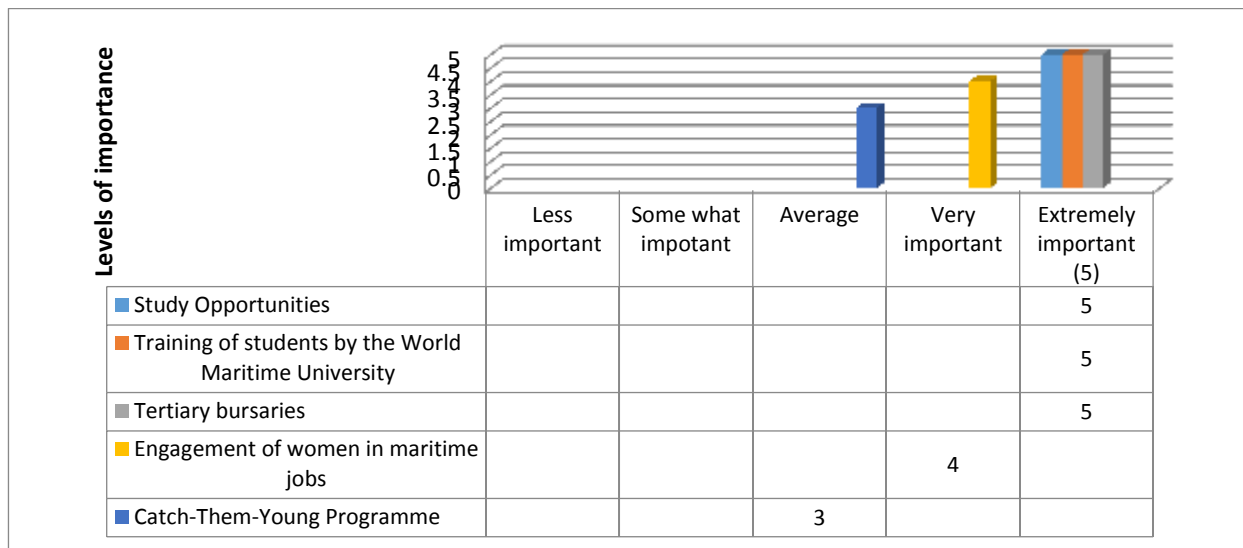


Figure Error! No text of specified style in document..5: Internal strategies used by NAMPORT to acquire skilled employees

Table 4.3 and figure 4.5 present the matrix of the internal procedure that was used by the Institution (NAMPORT) to obtain qualified employees in the Maritime field. According to the respondents, the themes that were rated to be the fundamental are study opportunities, training of students by the World Maritime University and tertiary education bursaries. The items of engaging women in Maritime jobs and the Catch-Them-Young-Programme have were rated to be very important and average, respectively.

Although Maritime is not a very popular concept in Namibia, some other few people have an idea of what it entails and are interested in pursuing careers in this industry. The responses grounded on respondents knowledge on the current status of Maritime at NAMPORT and in Namibia at large. The responses indicated that study opportunities and training of students by the World

Maritime University and tertiary bursaries are significant. Against the latter, attempts to send interested candidates to pursue careers in Maritime fields have been made to ensure that the lacking skills are acquired using opening up more study opportunities for people to study Maritime related courses. Study opportunities and training allow port companies to chance, thrive and compete in the world trade because their employees will have enough exposure to bring the company at the required level. This new image is affected by the knowledge to initiate ideas that can be highly beneficial to the company (Arsenie & Paulica, 2009; Arsenie, P., Hanzu-Pazara & Surugiu, 2012).

Furthermore, when employees at the port uphold the opportunities to study and acquire training in their field, it becomes easier for the company to retain them. As reported, in most cases, employees leave their jobs because they no longer feel challenged, and work has become a routine. Arsenie and Paulica (2009) elaborated that study opportunities and training are essential to port companies because they eliminate boredom and stagnation at the workplace.

The study opportunities, training of students by the World Maritime University, tertiary bursaries, engage women in Maritime jobs and Catch-Them-Young Programme, as the strategies NAMPORT use to acquire skilled employees. Tertiary scholarships entail the awarding of bursaries in mission-critical areas such as engineering, informational Communication Technology (ICT), logistics and Maritime law. Once the students have completed their studies, they may then join NAMPORT on a two-year graduate development program, aimed at providing essential workplace exposure, which prepares the graduates for permanent deployment when the opportunity arises. Catch-Them-Young is a programme that avails full scholarships to young, talented and deserving Namibians at Grade 10 school level for a two-year Maritime Studies at the Lawhill Maritime Centre in Cape Town, South Africa. The programme aims at preparing young qualifying Namibians for careers in the Maritime sector. Upon completion, students commence training on NAMPORT's Cadetship Training Programme.

External strategies required by NAMPORT to address skills shortage at the port

Table 4.4: Matrix of external strategies required by NAMPORT to address the skills shortage at the port

Themes	Importance of the themes				
	Less important (1)	Somewhat important (2)	Average (3)	Very important (4)	Extremely important (5)
Twining Agreement					✓
Agreements with Maritime Institutions					✓
Engage Development Partners			✓		✓
MoU on Trade Development					

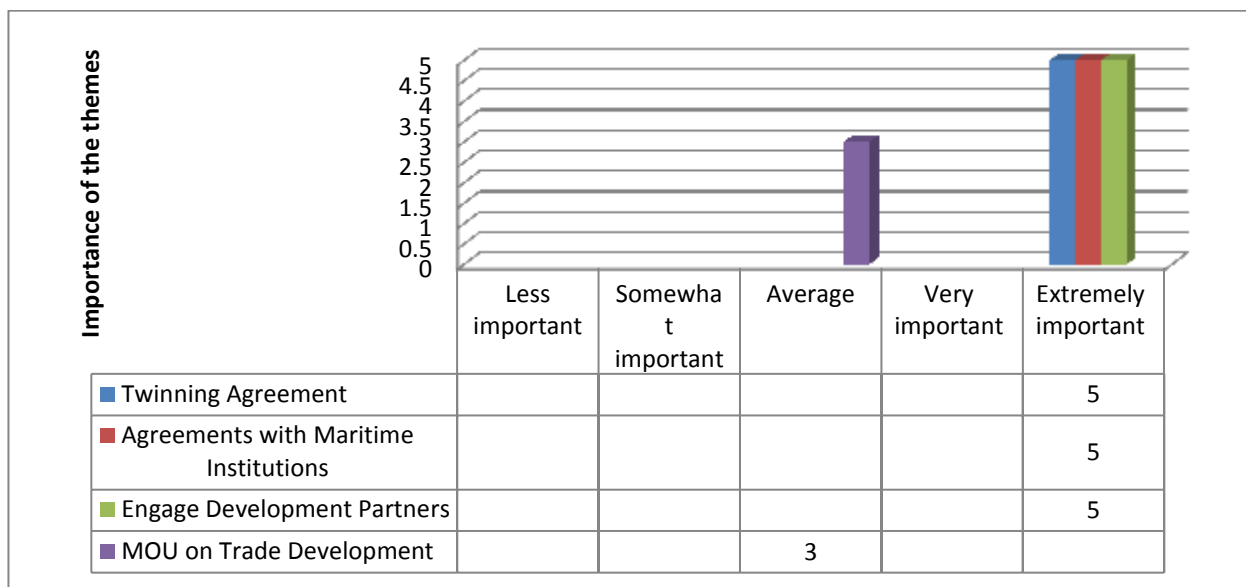


Figure Error! No text of specified style in document..6: External strategies required by NAMPORT to ensure that the right people are correctly placed

Table 4.4 and Figure 4.6 depict the various external strategies that NAMPORT employs in an attempt to address the skills shortage at the Maritime port. "External strategies" entail the efforts made by NAMPORT in collaboration with other institutions or other kinds of assistance sought to address the skills shortage in the field of Maritime. In the figure, it is evident that amongst others, twinning agreement, agreements with Maritime institutions, engaging development partners and MoU on trade and development, were the external strategies that were made by NAMPORT to minimise the problem of skills shortage in the Institution. The twinning agreement, the agreements with Maritime institutions and engaging development partners, has a rating of 5 on the scale, which is the highest. Furthermore, the frequency of the three themes was high, as indicated by the respondents. The rate of the MoU on trade and development was 3, meaning that, not many respondents felt that this strategy was of high importance.

The twinning agreement was signed between NAMPORT and Sweden to provide an opportunity to interested Namibians who would like to pursue careers in Maritime and to take up courses at Swedish universities. Similarly, the agreements entered with Maritime institutions signed to promote Maritime studies among Namibian students and to attend identifies Maritime universities. The aspect of engaging development partners emanated from the fact that, as a young Nation, Namibia is still not acquainted with some new industries such as Maritime, and would, therefore, require assistance from international countries that have cooperation with the Namibian Government. Sweden, for instance, has a competitive advantage in its Maritime industry that has proven to be performing very well. Hence, the Government of Sweden has provided various types of assistance to NAMPORT in this area. The MoU on trade and development was mainly on trade-related issues and not necessarily linked to Maritime. The idea, however, was to assist the Namibian Government, since it is becoming a new international Hub, to improve on trade and engage with other countries on trade matters. The responses suggested that the firm needed external interventions or strategies to ensure the placement of the right people in the right positions. The most popular suggested strategies were to engage Development Partners that could provide technical assistance in the Maritime domain and also to have Namibian understudies to take over once the international partners have left.

According to the findings, training in seafaring was a skill that the port needs to be able to carry out the mandate of the Institution. Furthermore, the results revealed that this kind of training enables the port to compete with other ports at a global level because of the knowledge that the employees possess in minimising accidents at the ports. This initiative enabled the Institution to retain its key employees (NAMPORT, 2014). Thus,

Concluding remarks and recommendation

The percentage of males vis-à-vis females that are working in the Maritime industry revealed that the males indeed dominate this industry. The unique problems encountered by women is working in non-traditional job environments that do not benefit them. This perception grounds on the community view that considered some jobs as "a man's world."

Furthermore, the findings reveal that males possibly dominate the industry because women are perceived to be more fragile than men. As such, they should not work in harsh environments, such as the Maritime industry environment that requires power to operate heavy mechanical work. It is therefore apparent that Maritime courses will not be the first career path that women will choose to pursue. Adding to this conception, religion, tradition, cultural, social, and customary patterns are some contributory factors that influence the status of women in society and a choice of carrier. Some cultures regard women as inferior to men. This perception usually discourages women from taking up careers considered to be for men only. Thenceforth, this study recommends the introduction of strategies that will attract women to join and pursue careers in the Maritime and change their reluctance or fear of Maritime profession. The same approach will equally encourage the youth to pursue Maritime careers. The attraction of women and youth in Maritime will address the skills shortage and enhance the sustainability of skills in the Maritime sector.

The majority of the respondents working in the Maritime field fall in the age group of 30-35 years. This finding implies that middle-aged males are the ones who are likely to apply for challenging jobs such as Maritime industry because they are young and vibrant and would not mind trying out different career paths. The Maritime Labour Convention (2006) revealed that the minimum age restriction of someone to work in the Maritime industry, particularly on the ships, should not be less than 16 years. The category of the dominating age group forms part of the youth and the youth typically have the different interests of careers that they would like to follow if not rightly guided or advised.

It was evident that male respondents occupy high-level positions. The respondents who took part in the study hold key positions such as deputy directors, advisors, directors, marine engineers, and Marine pilots. Thus males dominated the Maritime industry. In terms of the working status of employment, the respondents came from strategic institutions dealing directly with the subject Maritime. The National Planning Commission (NPC) 's mandate, for instance, spearheads the National Development agendas. Within the same Institution, the Department that deals with Research and Macro-Economic issues handles Maritime matters. This Department developed a Human Resource Development Plan (HRDP) which spearhead the expansion of the port of Walvisbay. Although Namibia aims to become an international logistics Hub, there is a need for closing the skills' gap in the Maritime industry to have the capacity to address the challenges that face the Maritime industries

The mere fact that institutions of high learning do not offer Maritime related course, the shortage of skill in Maritime will continue to prevail. Thus, establishing specific training in critical skill areas, specifically Maritime in the Institution of higher

learning locally, will activate the produce graduates with the essential skills which are vital for economic development. Training in various skill fields required by the market is imminent. Although recognising the absence of tertiary institutions that offer Maritime training, to date, the Government has not invested enough into the training of students in the World Maritime University neither provide bursaries meant explicitly for the students to pursue careers in the Maritime field abroad. Due to this shortcoming, they are apparent shreds of evidence that skill deficit areas in Maritime were marine pilots, Maritime lawyers and marine engineers, seafarers will prevail for a long while.

To be able to produce graduate with skills in Maritime, it is essential, necessary reviewing or crafting academic programmes and curriculum which focus on the production of skilled graduate and thus fill the existing shortage of expertise in the technical field and Maritime in particular. The institutions that play a role in the Maritime sector and mandated to ensure that Maritime industry prospers should put their efforts together in addressing the shortage of skills in the industry. Long term strategies are vital in solving the skill shortage in the sector. The frequency of the signing of twinning agreements should increase within Maritime and tertiary institutions between outside Maritime and tertiary institutions and the local. NAMPORT and the Government should engage more development partners to address the skills shortage in the Maritime field and design an on-the-job training at their Maritime ports.

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