Impact of Cash Conversion Cycle on Goa Shipyard's Profitability and Comparative Financial Management with Other Shipbuilding Firms

An Internship Report for
Course code and Course Title: MGA-652 Industry Internship
Credits: 16 Credits
Submitted in partial fulfillment of Master's Degree
Master of Business Administration in Finance

by

VEDANT VIBHAYA POROBO DESSAI

Seat Number: 22P0280072

Under the Mentorship of

DR. SURAJ PAVTO VELIP

Goa Business School
Management Studies

GOA UNIVERSITY
DATE: MAY 2024

Examined by:

Seal of the School

DECLARATION BY STUDENT

I hereby declare that the data presented in this Internship report entitled, **"Impact of Cash Conversion Cycle on Goa Shipyard's Profitability and Comparative Financial Management with Other Shipbuilding Firms"** is based on the results of investigations carried out by me in the Discipline of Management Studies at Goa Business School, Goa University, under the mentorship of Dr. Suraj Pavto Velip and the same has not been submitted elsewhere for the award of a degree or diploma by me. Further, I understand that Goa University or its authorities/College will not be responsible for the correctness of observations / experimental or other findings given the internship report/work.

I hereby authorize the University authorities to upload this dissertation to the dissertation repository or anywhere else as the UGC regulations demand and make it available to any one as needed.

Vedant Vibhaya Porobo Dessai

Seat Number: 22P0280072

Date: 30/04/2024

Place: Goa University

COMPLETION CERTIFICATE

This is to certify that the internship report **"Impact of Cash Conversion Cycle on Goa Shipyard's Profitability and Comparative Financial Management with Other Shipbuilding Firms"** is a bonafide work carried out by **Mr. Vedant Vibhaya Porobo Dessai** under my mentorship in partial fulfillment of the requirements for the award of the degree of **Master of Business Administration** in the Discipline of Management Studies at the Goa Business School, Goa University.

30/04/2024

Date: 30/04/2024

Dr. Suraj Pavto Velip

Project Guide

Signature of Dean of School/HoD

Goa Business School ★ Goa University ★

School Stamp

Date: 30/04/2024

Place: Goa University

ACKNOWLEDGMENT

I would like to use this opportunity to express my heartfelt gratitude to Goa Shipyard Limited Management, officers, staff, and everyone else who supported me by giving me the essential support, insightful advice, and necessary information to finish my last internship.

I want to thank Mr. Praveen Kumar Singh, Senior Manager (Finance), Mr. Carmo Savio Pacheco, Junior Manager (Finance), and the staff working in the finance department for their guidance, assessment of the report, and encouragement to finish my internship.

Additionally, I would like to express my gratitude to the officers, junior managers, and staff members who gave their precious time to teach me how practically things work in the finance department.

Finally, but just as importantly, I want to express my gratitude to Dr. Suraj Pavto Velip, Program Director of MBA, Management Studies, Goa Business School at Goa University in Taleigao, Goa, for his mentorship and guidance that helped me finish the internship assignment on time. Finally, I would like to thank the dean for all of her assistance and support during this internship.

OFFER LETTER

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AN ISO 9001:2015, 14001:2015,45001:2018 CERTIFIED COMPANY
(भारत सरकार का उपक्रम)
(A GOVT. OF INDIA UNDERTAKING)
रक्षा मंत्रालय
MINISTRY OF DEFENCE
वास्को-द-गामा, गोवा - 403 802
VASCO-DA-GAMA,GOA - 403 802

गोवा शिपयार्ड लिमिटेड
GOA SHIPYARD LTD

स्वच्छ भारत
एक कदम स्वच्छता की ओर

दूरभाष / Tel : (0832) 2512152 - 56, 2512359
फॅक्स / Fax : (0091-832)2514232, 251148, 2513260
ई-मेल / E-mail : contactus@goashipyard.com
वेब / Website : www.goashipyard.com
GSL CORPORATE IDENTITY NUMBER (CIN)
U63032GA1967G01000077
GSTIN : 30AAACG7569F1ZR
पंजिकृत कार्यालय और यार्ड : वास्को-द-गामा,गोवा- ४०३८०२.
Registered Office & Yard : Vasco-da-Gama, Goa, 403 802, India.
सभी उत्तर अध्यक्ष एवं प्रबंधक निर्देशक को संबोधित करना है।
All replies to be addressed to the Chairman & Managing Director

Ref.No. GSL/HR&A/L&D/Internship-2023/01

Date : 14.11.2023

To,
Programme Director,
Management Discipline,
Goa Business School,
Goa University,
Taleigao Plateau,
Goa – 403 206.

registrar@unigoa.ac.in

Sir,

Sub : MBA 4th Semester internship.

Please refer to your letter Ref. No. GU/GBS/Internship/2023 dated 13.11.2023 regarding the above subject matter.

In this connection, it may please be noted that your request for the same has been considered as a special case for permitting Mr. Vedant Vibhaya Porobo Dessai, a student of MBA (Finance) for undergoing internship for a period of 16 weeks w.e.f. 15.01.2024 in GSL.

We would like to draw your attention to the enclosed (a) undertaking which is to be furnished by the student on Rs.100/- Non-Judicial Stamp Paper jointly by the student, Principal/HOD and Parent of the Student duly Notarized by the Notary Public, (b) two stamp size latest color photographs and copy of ID Card issued by Institute for undergoing internship in GSL. Further, student may be advised to compulsorily carry his ID Card issued by the Institute and the required Safety Gear such as Boiler Suit, Safety Shoes, Helmet etc. from the first day of his internship in GSL. It is hereby informed that no students are permitted to bring their Mobile Phones nor Laptops or any kindly of electronic devices from the first day of their joining in GSL.

If the conditions as stated above are acceptable, you may consider in deputing Mr. Vedant Vibhaya Porobo Dessai for undergoing internship w.e.f. 15.01.2024 in GSL.

Kindly note this permission letter is valid for a period of 30 days from the date of issue. Further, student shall report at our Apprenticeship Training Centre on the first day for completing his induction formalities in GSL.

For any further queries please feel free to contact the undersigned by e-mail to abdurrahman@goashipyard.com/rajendrakerkar@goashipyard.com or phone on 0832-2512152-56 Extn.No.4656/4662.

Thanking you,

Yours faithfully,
For **GOA SHIPYARD LIMITED**

21.11.2023
14/11/2023

(Shaik Abdur Rahman)
SECTION HEAD (L&D & WE)

Encl : Undertaking.

INTERNSHIP CERTIFICATE

गोवा शिपयार्ड लिमिटेड
GOA SHIPYARD LIMITED
आयएसओ 9001:2015, 14001:2015,45001:2018 कंपनी प्रमाणित
AN ISO 9001:2015, 14001:2015,45001:2018 CERTIFIED COMPANY
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All replies to be addressed to the Chairman & Managing Director

Date: 04.05.2024

Our Ref. GSL/HR&A/L&D/Cert/Gen/01

TO WHOM-SO-EVER IT MAY CONCERN

This is to certify that Mr. Vedant Vibhaya Porobo Dessai, a Student of Second Year Master of Business Administration (Finance) of Goa Business School of Goa University, Taleigao, Goa has undergone **Internship** from 15.01.2024 to 04.05.2024 in GSL.

The details of training undergone by him during his internship in Payroll Section of Finance Department are as follows:

1. Introduction to Payroll/Finance Department,
2. Verification of Imprest Bills, Travel Allowances and Sundry Bills,
3. Updation of KYC details of employees,
4. Updation of Data in BaaN ERP system.

His Internship Assessment Report is attached as Annexure-I.

We wish him all the success in his further endeavors.

G20 भारत 2023 INDIA

Azadi Ka Amrit Mahotsav

For **GOA SHIPYARD LIMITED**

21.31.2024
04/04/2024

(Shaik Abdur Rahman)
SECTION HEAD (WE & L&D)

GOA SHIPYARD LTD. गोवा शिपयार्ड लिमिटेड वास्को-द-गामा VASCO-DA-GAMA

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EXECUTIVE SUMMARY

The full experience obtained from managing many duties and learning opportunities at Goa Shipyard Limited (GSL) is summed up in the executive summary. The first section of the study examined how the cash conversion cycle (CCC) affects the operational efficiency and financial stability of shipbuilding companies. It demonstrated how, although a longer CCC may raise working capital costs and reduce profitability, a shorter CCC may enhance profitability by speeding up receivables and inventory turnover. In Part 2, important shipbuilding firms such as GSL and Other Ship Building Firms were strategically analyzed. GSL's profitability and resilience in the face of economic hardship were highlighted. The article highlights the significance of inventory control, receivables management, and strategic financial decisions in enhancing profitability and operating efficiency with implications for GSL from a managerial perspective.

Additionally provides specifics of the many jobs completed, such as data input, verification processes, and financial model building, demonstrating the wide range of skills acquired throughout the internship. thought back on the lessons learned and difficulties faced, stressing the need to acquire new skills, adhere to rules, communicate, be flexible, and never stop learning. All of these experiences have contributed to a comprehensive grasp of stakeholder management, regulatory compliance, and organizational procedures, which has laid the groundwork for future professional development

1. CHAPTER 1: PROFILE OF THE COMPANY

1.1. Bird's eye view

Goa Shipyard Limited (GSL), which was founded in 1957 on the banks of the Zuari River in Goa, has gone a long way from its modest beginnings to becoming one of the biggest shipbuilding companies in India. This massive, ISO-certified organization, which works under the Ministry of Defence, has an integrated management system that puts quality, environmental responsibility, and worker safety first. GSL makes use of its advantageous location with a major port and international airport to establish connections with international shipping lines. It began as a tiny barge builder and has gradually grown into an advanced shipyard, known for its skill in creating both commercial and defense boats. GSL has designed, manufactured, and commissioned a wide range of ships in the last 40 years, with a specialty in contemporary steel and aluminum patrol boats. Its portfolio includes a variety of warships that bolster the country's defense capabilities, such as agile Fast Attack Craft and powerful Offshore Patrol Vessels. Beyond military uses, GSL produces reliable tugs, fast passenger boats, and advanced dredgers to meet the demands of the civilian market. Its ISO 9001:2015 accreditation attests to its dedication to quality, and its state-of-the-art CAD/CAM facility guarantees cutting-edge outfitting, simulation, and design capabilities. Modern production sites and a strong ERP system highlight GSL's commitment to accuracy and efficiency even more. This marine powerhouse is anchored by a committed staff of approximately 1277 employees. It is an excellent instance of vertical integration, with state-of-the-art production facilities, a specialized material management staff, and design skills. This strategic strategy results in cost-effectiveness, operational efficiency, and ships that are proudly bearing the coveted "Made in India"

mark. But GSL provides a wide range of services in addition to shipbuilding. GSL is a one-stop shop for its clients, handling everything from the design and construction of unique boats to the maintenance and modernization of current fleets. Another plus for GSL is technology transfer, which allows it to impart its knowledge and inspire others in the marine sector. In addition to winning over the Indian Navy and Coast Guard, GSL's dedication to quality and innovation has drawn in foreign customers looking for vessels built with Indian know-how. The steady tinkle of metal against metal represents GSL's unwavering commitment to safeguarding the country's maritime security as they stand as quiet protectors of India's maritime interests (goashipyard, 2023).

1.2. Analysis of vision and mission statement

Vision of Goa Shipyard limited is Striving to become a modern organization specializing in Ship Design, Construction, Ship Repairs, and General Engineering Solutions. (goashipyard, 2023)

Goa Shipyard Limited's vision is a reflection of its desire to become a cutting-edge, modern company in the marine sector. The company's objective is to adopt contemporary techniques and technology by concentrating on ship design, building, maintenance, and general engineering solutions. This vision highlights Goa Shipyard Limited's dedication to promoting innovation, keeping up with industry developments, and satisfying the changing demands of its customers. The company's goal in modernizing is to become more competitive and establish itself as a leader in the marine industry both nationally and globally.

The mission of Goa Shipyard Limited is to establish ourselves as a world-class shipbuilding yard, catering to both domestic and export markets. We aim to achieve this by designing, constructing, repairing, and delivering maritime products and engineering services punctually and competitively priced. (goashipyard, 2023)

Goa Shipyard Limited's mission sums up the company's dedication to excellence in the marine sector. The company's goal is to become a top-tier shipbuilding yard to cater to the various demands of both local and global markets. By skillfully designing, building, fixing, and delivering marine goods and engineering services on schedule, the business guarantees the greatest caliber and competitiveness. This mission statement highlights Goa Shipyard Limited's commitment to meeting and exceeding customer expectations and advancing the marine industry.

1.3. Products and services of the company

Shipbuilding

Goa Shipyard Limited is an expert in building a wide variety of navy boats to meet different nautical needs. To ensure a comprehensive approach to maritime security, their portfolio includes the production of strategically significant and technologically advanced vessels such as Missile Frigates, Advanced Offshore Patrol Vessels, Naval Offshore Patrol Vessels, Offshore Patrol Vessels, Fast Attack Craft, and Pollution Control Vessels. The shipyard's dedication to adaptability and operational flexibility is exemplified by the addition of Missile Crafts, Sail Training Ships, Hydrographic Survey Vessels, and Fast Patrol Vessels to the fleet. Goa Shipyard Limited is dedicated to addressing a variety of marine difficulties with creativity and experience, and this is demonstrated by the critical role that it plays in supporting navy operations with specialized vessels such as Torpedo Recovery Vessels.

General Engineering Services

Goa Shipyard Limited expands its capabilities by offering a full range of general engineering services based on its experience in shipbuilding. Facilities such as the Shore Based Test Facility are available at the shipyard, which makes it easier to carry out thorough testing and validation procedures. It also has a cutting-edge training facility for nuclear, biological, and chemical weapons, a state-of-the-art damage control simulator, and a facility for training people in survival at sea. Beyond building ships, Goa Shipyard

Limited offers a wide range of engineering services for building necessary infrastructure, including fuel barges, FRP/GRP boats, LPG cylinder carrier vessels, tugs, ferry boats, and fishing trawlers. Additionally, it has strengthened its position as a leader in the marine business by producing Floating Docks, which demonstrate its adaptability in addressing a variety of engineering issues and contributing to maritime logistics.

Ship Repairs

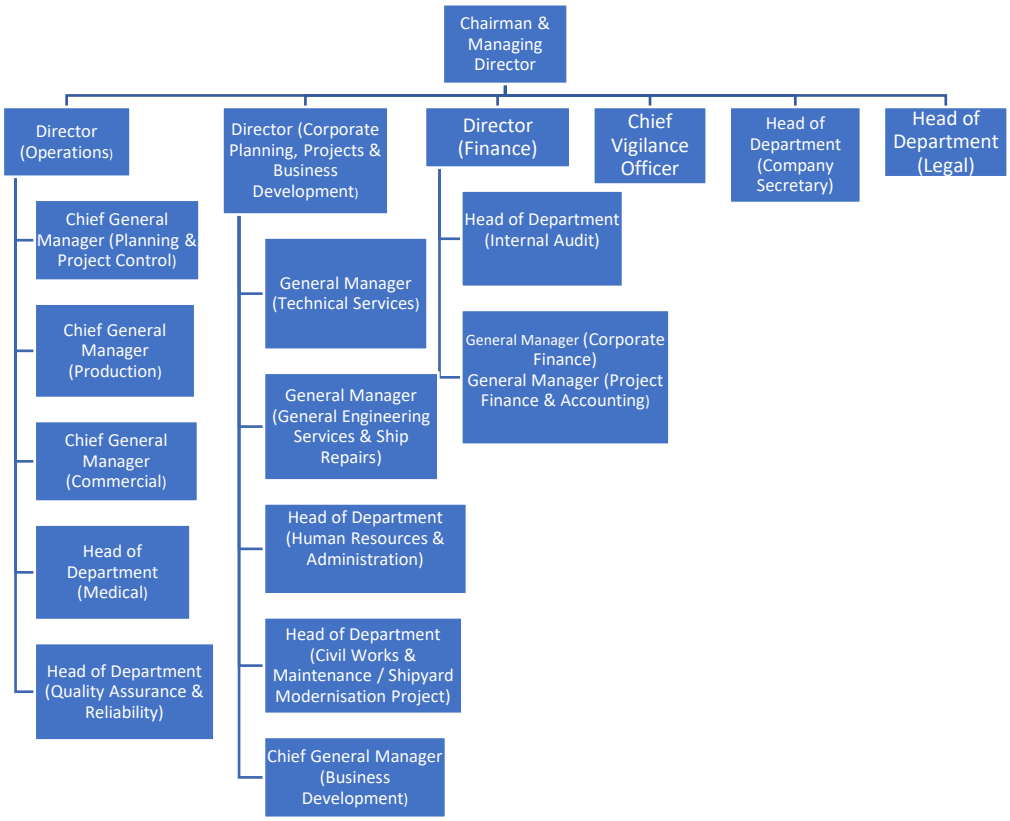
In addition to offering its services to the Indian Navy, the shipyard specializes in the painstaking maintenance and repair of Coast Guard vessels. It also provides critical repairs to navy vessels that are necessary to maintain their operational effectiveness. Additionally, Goa Shipyard Limited serves the commercial industry by providing thorough repair services for a range of commercial boats. The shipyard's commitment to maritime education and training is demonstrated by the fact that it is capable of repairing and maintaining sail training ships. Furthermore, Goa Shipyard Limited is essential to the Fishery Survey of India's ability to maintain the seaworthiness of its vessels, which promotes sustainable fisheries management. The shipyard is a dependable partner for the upkeep and improvement of various marine fleets thanks to its extensive range of ship repair services.

1.4. Clients

The wide range of clients the shipyard serves is indicative of its international standing and broad range of experience in meeting the nautical requirements of different public and private organizations. Prominent entities including the Indian Coast Guard, Indian Navy, and Oil & Natural Gas Corporation are among the company's notable clientele. The shipyard's clientele includes the Royal Navy of Oman, the Government of the Maldives, the Government of Mozambique, and the Government of Yemen, demonstrating the breadth of its reach beyond the borders of India. The adaptability of the shipyard is demonstrated by its relationships with governmental agencies such as the Ministry of Home Affairs, the

Government of India, and the Port Trusts of Mormugao, Madras, and Tuticorin. Furthermore, it demonstrates its dedication to expanding marine knowledge through collaborations with research institutes such as the Central Marine Fisheries Research Institute and the Central Institute of Fisheries in Mumbai. Collaborations with foreign organizations, such as the governments of Sri Lanka, Mauritius, Myanmar, and Iran, further highlight the shipyard's worldwide reach. The shipyard continues to be a reliable partner in providing top-notch marine solutions globally, with a varied portfolio and a clientele that transcends national boundaries (goashipyard, 2023).

1.5. Organizational structure



1.6. Departments in Goa Shipyard Limited

Planning Department

Goa Shipyard Limited's Planning Department is essential to the successful completion of shipbuilding projects. The team makes sure that deadlines are fulfilled and resources are used as efficiently as possible

by creating thorough project plans and schedules. While resource allocation requires effectively allocating labor and supplies, project scheduling entails developing comprehensive time frames for each stage of shipbuilding. To maintain efficient operations, the department also keeps an eye on the status of the projects, recognizing and resolving any deviations from the plan.

Technical Service Department

Providing essential technical assistance and knowledge, the Technical Service Department is the foundation of Goa Shipyard's shipbuilding process. This entails providing support at every stage of the shipbuilding process, resolving problems as they emerge, and upholding strict quality control guidelines. Working closely with other departments, the team provides technical insights to improve the overall effectiveness and Caliber of the shipbuilding process.

Design Hull Section

It is in charge of the basic aspects of ship design and concentrates on the conceptual and detailed design of the ship's hull. Creating the structural framework and taking stability, hydrodynamics, and general seaworthiness into account are all included in this. To guarantee a smooth integration of the hull with other ship systems, the division works in conjunction with other design departments.

Design Engineering Section

This division manages the more general engineering facets of ship design, extending beyond the hull. This involves solving structural engineering problems, integrating different systems onto the ship, and doing stability evaluations. This part makes sure the ship is optimized to fit the needs of its intended purpose both physically and functionally.

Design Electrical Section

This section is dedicated to the study of the ship's electrical systems and parts. This area guarantees the smooth integration of electrical components into the overall ship design, starting with the design of electrical circuits and ending with power distribution and control systems. Their labor is essential to the correct operation of the ship's electrical components, communication devices, and navigational systems.

CAD/CAM Section

To optimize the design and production processes, the CAD/CAM Section uses cutting-edge computer-aided design and manufacturing techniques. The division uses 2D and 3D modeling to visualize and enhance ship designs, while CAM programming makes production more efficient. This technological integration shortens the time to manufacturing, improves precision, and lowers mistakes. Now focusing on the use of Artificial Intelligence to Integrate their processes.

Naval Projects and Outsourcing Section

This division is in charge of overseeing naval projects and arranging for outsourcing work. This includes managing the project as a whole, making sure that deadlines are reached, and efficiently liaising with subcontractors. This area is essential to preserving the Caliber and promptness of services and parts that are outsourced.

Commercial Department

The Commercial Department is responsible for handling procurement procedures, supervising negotiations, and negotiating contracts. It also handles the business side of shipbuilding projects. They also have to make sure that the materials and services they purchase meet project budgets and quality requirements, which helps the shipbuilding companies make money overall.

Stores Department

This department plays a key role in keeping supplies and inventory under control. This calls for well-organized storage facilities, effective procurement procedures, and careful inventory control. The Stores Department helps the many shipbuilding divisions run smoothly by making sure the resources are available when needed.

Quality Assurance Department

The Quality Assurance Department implements strict quality control procedures to maintain regulatory requirements and quality standards. This includes getting the required certifications, adhering to industry standards, and conducting inspections at different phases of shipbuilding. The section adds to the overall dependability and safety of the ships it produces by upholding a commitment to quality.

The Production Department

It is primarily responsible for managing the actual fabrication of ships. This covers the building of the hull as well as the outfitting and assembling of other ship parts. The department coordinates the work of several specialist teams throughout the production process to guarantee that the design criteria are turned into concrete, seaworthy boats. One of the sections is the building of the ship's hull's structural structure is within the purview of the Hull Construction crew. This includes assembling steel plates, welding precisely, and making sure the vessel is structurally sound. The remainder of the shipbuilding process is based on the job they do. Another section includes Special Products Section (SPS) which is responsible for manufacturing unique parts or attributes needed for certain ships. The smooth integration of these parts into the overall structure is ensured by the specialist building techniques covered in this section. Customization is a common part of their work to satisfy specific project needs. Also, The Paint Shop section is one of the important sections in shipbuilding firms as it requires a lot of marine paints and also is in charge of giving ships their last decorative touch. This section is responsible for painting and

completing the surfaces of the ship, which not only improves its look but also offers vital protection from external factors and corrosion. This Department also handles Fitting Out Engineering in which the group in charge of fitting out the ship arranges for the installation of different systems and parts. To guarantee the ship's operation, this entails integrating the mechanical, electrical, and plumbing systems. Their labor enhances the vessel's overall operability.

Yard Services Department

The shipyard's entire operation depends heavily on the provision of yard services. This covers facility management, logistical coordination, and maintenance. The department makes sure the shipyard runs smoothly and supplies the resources required for different shipbuilding operations.

Ship Lift/Shipwright Department

Goa Shipyard Limited's Ship Lift/Shipwright department is essential to the shipbuilding process as it manages the upkeep and functionality of the ship lift facility. The department, which is in charge of lifting and launching ships, makes sure that they are handled safely during these crucial procedures, placing a strong emphasis on the hull's integrity and strict adherence to safety regulations. In addition to actively participating in ship repair and maintenance duties, shipwrights in this division also contribute to the general seaworthiness and lifetime of the boats.

Plant Maintenance Department

This department is responsible for Plant Maintenance and plays a crucial role in ensuring that the shipyard's machinery and equipment run efficiently. The department avoids delays in the shipbuilding process by employing preventative maintenance, timely reaction to failures, and routine inspections. They provide a substantial contribution to the overall dependability and efficiency of the shipyard's mechanical infrastructure through maintenance and troubleshooting. An important section under Plant

Maintenance is the machine shop section where this section assures the creation of precise and high-quality parts required for ship assembly by using precision equipment and machines. Their machining proficiency immediately enhances the accuracy and dependability of different ship parts.

Power House Department

In charge of producing and allocating energy inside the shipyard, this Department ensures a steady and dependable supply of power for a range of functions. This department serves the various requirements of the shipbuilding process by maintaining power distribution systems, generators, and other critical infrastructure, guaranteeing continuous workflow and operational continuity. If there are Power Outrages within the firm, they are responsible for restoring it as fast as possible.

General Engineering Service Department

This department offers thorough engineering assistance for all aspects of building ships. This department serves a variety of purposes in upholding engineering excellence across the shipyard, from general technical support to specific services needed at different stages of ship construction.

Department of Shipyard Modernization Projects

This division is committed to the ongoing advancement of technology and infrastructure at the shipyard. They help to maintain the shipyard at the forefront of industry standards by managing initiatives targeted at modernizing facilities, implementing new technology, and improving overall efficiency in shipbuilding operations.

Civil Section

In the shipyard, the Civil Section is in charge of the planning, building, and upkeep of civil structures. Buildings, docks, and other infrastructure improvements necessary to keep the shipyard operating are

included in this. Their knowledge guarantees the durability and structural integrity of important shipbuilding facilities.

Finance Department

The Finance Department is essential to Goa Shipyard Limited's financial management. They ensure that financial resources are distributed effectively to support the operations and expansion of the business through accounting, financial planning, budgeting, and financial reporting. Their labor is essential to the shipbuilding company's viability and financial stability.

Information Technology

The shipyard's IT systems and infrastructure are managed and kept up to date by the Information Technology department. To support the digital components of shipbuilding, this includes managing data management, cybersecurity, software applications, and computer networks. Their function is essential to guaranteeing the seamless incorporation of technology into different shipbuilding procedures. Also, They are responsible for the printing process of the payment slips of employees through the system and also to see the Computers allowed to have net are being used for productive work only.

Human Resource And Admin Department

This department oversees all aspects of human resources, including hiring, training, employee relations, and administrative tasks. Through the provision of a favorable work atmosphere and streamlined administrative procedures, they enhance the welfare and efficiency of the shipbuilding labor force. A section is the Public Relations Section division oversees communications with the media, stakeholders, and the general public on behalf of Goa Shipyard Limited. They are in charge of distributing information, responding to public questions, and constructing and upholding a favorable public image. They are also vital in promoting openness and goodwill.

Security and Administration Department

The Security and Administration Department is in charge of keeping the shipyard's grounds secure. This entails carrying out security procedures, controlling access, and guaranteeing the protection of people and property. Their efforts help to ensure that everyone who works at the shipyard has a safe and secure environment. And all the laws regarding the prohibition of Phones and Laptops not being allowed in the firm.

The Medical Department of Health

This department is committed to upholding a workplace that is both ecologically conscious and safe. They put employee health and safety first, as well as the long-term viability of the shipyard's operations, by creating and implementing safety procedures, doing environmental evaluations, and guaranteeing adherence to health and safety laws.

Vigilance Department

Preventing fraud, corruption, and unethical behavior within the company is the responsibility of the Vigilance department. They are essential to preserving integrity and accountability across the shipyard because they conduct investigations, encourage moral behavior, and make sure that moral guidelines and legal requirements are followed.

Legal Department

Goa Shipyard Limited receives legal advice and assistance from the Legal Department. They aid in legal compliance and risk reduction by managing contracts, resolving disputes, handling legal issues, and making sure the business runs within the bounds of relevant laws and regulations.

Secretarial Section

The Secretarial Section supports the efficient operation of executive offices and facilitates efficient communication within the company by helping with administrative and secretarial chores. Their function is essential to maintaining managerial communication and organizational effectiveness.

1.7. Sections Within the Finance Department

Sales Section

Within the financial department, the sales division holds a significant position. When a corporation participates in the selection process for tenders, sales occur. The contract or agreement is made whenever the firm accepts the terms and conditions of the tender. After that, it is sent to the engineering department, and if they approve it, the business issues an acceptance certificate. The billing portion then starts. Billing work begins on the completion date since tax liabilities are also computed and asserted against the customers using invoices that reflect the application taxes' contract value as of the invoice date. Following approval of the bill and receipt of payment, the remaining funds are invested to prevent future income loss from holding the money in cash or a bank account. The remaining funds are used by the other departments of the organization.

Imports Section

Given that the business deals with marine items and vessels. The raw materials needed for the contribution must be of a high Caliber and be available at a fair price at the appropriate moment. Because of this, a corporation may occasionally need to purchase raw materials from sources outside of India. The imports section is activated when a corporation purchases raw materials from sources outside of India. The section's tasks include raising the purchase order with the foreign party, receiving the raw material shipment by air or sea on schedule, paying the appropriate customs duty on time, and delivering the raw material to the corporate store. Additionally, the imports division must pay international suppliers

in foreign currency under the terms of the contract. To prevent losses from swings in foreign exchange, they must deal in outside markets.

A brief explanation of the import procedure is as follows:

The commercial department drafts a purchase order and sends it to the imports section along with the terms and conditions after determining who and from which country they must import. Therefore, a letter of credit must be created before items may be imported. This letter of credit indicates that the bank is providing a guarantee for payments since the two parties are unrelated to one another and are distinct entities. Thus, the imports section is used here. From here, together with the company's commitments and declarations, they apply to the bank to open a foreign documentary credit or standby letter of credit. The bank completes the appropriate tasks after this letter of credit is opened. The material exporting business then forwards the relevant documentation to the appropriate parties. Additionally, the corporation transmits the vessel's certificate of permission for the item being provided; importers must pay the bank the required sum to obtain the documentation.

The company employs clearing agents, who work on a contract basis. They transmit one copy of the paperwork and materials to this agent. When the supplies arrive, they conduct the necessary checks. They are making payments in advance as well as after obtaining the supplies in certain instances. The method of payment used for this transaction is a SWIFT transfer through banks. The bank receives the letter from the company requesting payment and then pays the exporters the specified sum. It's called a "Payment Advisor" letter.

Taxation Section

The section on taxes covers both direct and indirect taxes that are relevant to the operations of the corporation. The taxation sector gets ready by keeping up with any updates or changes to tax laws and legislation. It is their responsibility to determine the tax burden, pay it on time, and file the necessary

return on schedule. This is presented before different tax agencies for evaluations and categorization of conflicts across divisions within the corporation.

Costing Section

This component is crucial in determining the average rate or pricing of the product. Its typical production capacity and additional financial information are helpful for budgeting and negotiating with clients to secure work at a fair cost and profit margin. Costing is mostly a premortem task. This area is a great resource for organizing and making decisions. because the business is informed of its profits and losses.

Bills Section

This is the part where payments are made. Here, they get a variety of bills. They provide their suppliers in India with their money. That is the company's assortment of creditors. Bills are carefully examined and paid under the terms and circumstances specified in the contract or order. Additionally, the bills division is in charge of promptly deducting applicable statutory taxes and sending the proceeds to the appropriate government accounts by the deadline.

Sub-Contract Section

when a business obtains additional work beyond what it can handle or when it receives work that needs to be done elsewhere other than on company property. In these kinds of situations, the business will then subcontract these tasks at a reduced rate, guaranteeing that the subcontractor will receive the benefit from the subcontract cost. When subcontractors complete work under the terms of the contract, the company claims the work, and these claims/bills are settled by the sub-contract section, which makes sure that the bills from the subcontracts are examined, paid within the allotted time, applicable taxes are subtracted, and the money is deposited to the appropriate government accounts by the deadline.

Cash Section

The busiest section in finance is this one. In addition to collecting cheques, depositing them in the bank, and handling payments on behalf of different finance sections—such as payroll, subcontracts, bills, and miscellaneous—this section also arranges loans for funds in case cash isn't available for making urgent payments. distribution of any extra money that the firm has on hand in the form of investments to generate a healthy return. Additionally, it facilitates the creation of future and forward contracts for the payment of foreign parties in foreign currencies. It is the only and complete custodian of corporate funds, and it is managed effectively and correctly.

Internal Audit Section

The Companies Act of 2013 stipulates that a corporation must have an internal audit department. All firm departments are audited by the internal audit unit concerning financial concerns as well as other significant and pertinent issues. The audit committee now includes this department. To ensure the company's openness, it drafts agendas for the board, audit committee, and meetings and posts them on the audited balance sheet.

Insurance Section

Despite being a small segment, it covers a significant portion of the business. The production facility, the personnel, and the company's assets are all covered by the insurance department. It is in charge of making the premium payments on schedule and making an insurance claim in the event of an accident or damage.

Payroll Section

This section guarantees that salaries are correctly calculated and paid to employees under the terms and conditions of the agreements or policies that the business has implemented. It is in charge of taking

money from employees' paychecks for PF, ESI, pensions, and premiums and promptly depositing it into the government treasury by the deadline. It is also in charge of paying out employees' last salaries if they retire, get fired, or leave the organization.

1.8. Pestel Analysis

Political Factor

This includes legal and governmental requirements as well as the official and informal guidelines that direct Goa Shipyard Limited's activities. GSL is a Ministry of Defence public sector operation, and as such, it is significantly impacted by political issues that affect its strategic choices. Some examples are:

- India is a democratic nation where state-elected governments rule over their respective populations. Since the elected administration has shown stability in recent years, the political environment is viewed to be viewed as favorable for industry.
- The press has freedom of expression inside India's democratic system, which benefits several industries. Growth in businesses is encouraged by this environment, which is marked by the rule of law and low levels of bureaucracy and corruption.
- With an emphasis on developing indigenous warship building as a strategic capability and also the emphasis on make in-India campaigns, GSL was founded to meet defense demands. Owing to the high level of security, the government prefers to use a public sector organization under independent management when acquiring defense services. For example, GSL received a grant of 50 crores in 2018 as its Make in India Initiative from the Ministry of Shipping.
- Government-laid employment regulations meet with regulatory measures intended to protect employees' rights and well-being, guaranteeing Goa Shipyard Limited's staff a minimal degree of employment and job security.

- Companies in this industry, like Goa Shipyard Limited, must comply with environmental standards; thus, obtaining certifications from government-approved organizations like ISO is necessary to guarantee compliance and sustainable business practices.

Economic Factor

As the defense shipbuilding sector requires a large amount of funds, the state of the national economy influences the company's cost of capital. Due to their high worth as defense equipment, warships are vulnerable to fluctuations in the global economy that might impact exporting countries' ability to make purchases. These are the following examples of factors in the macro-economy that affect the shipbuilding industry:

- During the next ten years, India's growth rate has been positive. Consequently, growth in the shipbuilding sector is anticipated. India's domestic ship industry is expected to develop, especially in interior waterways and coastal shipping, as shown by the country's predicted 7% GDP growth in 2024.
- The shipbuilding industry, which is well-known for its complexity and capital intensity, depends on a worldwide supply chain for many of its parts. Exchange rate fluctuations have a big effect on the business, affecting expenses and making it harder for the supply chain to run smoothly. A depreciating rupee can drive up import prices dramatically, reducing corporate margins and delaying the completion of projects.
- The shipbuilding sector is under uncertainty due to recent fluctuations in inflation rates. The effects of the most recent COVID-19 impact and Russia Ukraine War serve as an example of how vulnerable this industry is to economic downturns. The industry must traverse an ever more difficult economic landscape as a result of the varying rates of inflation.
- India is a favorable location for shipbuilding companies due to its high level of education and cheap labor expenses. Research and development (R&D) and production are also cost-effective, with India's

processes being around 50% more cost-effective than those in wealthy nations. The Indian shipbuilding industry is more competitive on the international scene thanks to its advantageous cost structure.

Social-Cultural Factor

Customer needs and the potential size of the market are influenced by social variables, which include the demographic and cultural components of the external macroenvironment. Several societal elements influence and shape the dynamics of the shipbuilding Industry such as

- International relations: Political unrest and violence have the potential to disrupt global maritime lanes and trade, which will affect the market for new ships.
- Safety first: Tight safety laws and growing labor expenses can drive up operating expenses and impede expansion.
- Social mobility and attitudes: Availability of labor and talent attraction may be impacted by changing perceptions of particular occupations, such as shipbuilding.
- Press and public opinion: The reputation of a business can be harmed by unfavorable media coverage or by how the general public views environmental issues or ship accidents.
- Socio-cultural shifts: To remain relevant, vessel design and functioning may need to adjust to reflect shifting societal values and preferences.
- Employment Patterns, Job Market Freedom & Attitudes to Work in Shipbuilding: Increased usage of temporary and contract employees for some projects; these workers offer flexibility but affect job security. Hiring procedures and employee flexibility could be impacted by labor laws and safety requirements also, the well-being and retention of employees can be impacted by demanding work schedules and shift rotations.

Technological Factor

Technological factors can affect choices regarding outsourcing and lower minimum efficient production levels, hence lowering entry barriers. A few technical factors impacting the shipbuilding sector include:

- Pace of Technological Change: As a result of ongoing developments in shipbuilding technology, key elements like design, production procedures, and operational effectiveness are being impacted, hence transforming the industry. Modern technologies are always being adopted to stay competitive in this quickly changing economy. Example: Shipyards are designing ships using virtual reality and sophisticated 3D modeling tools. This lowers mistakes and lead times by enabling virtual prototyping, optimization, and teamwork. Additionally, a few shipbuilding firms are creating digital twins—virtual copies of actual ships—that collect performance information and allow for predictive maintenance, which boosts productivity and lowers downtime.
- Innovation in Research and Development (R&D): The shipbuilding sector is aware of the critical role that R&D consortiums play in promoting innovation. To maintain being at the forefront of developing technologies, active collaboration is pursued with universities and technological incubators. Example: Cochin Shipyard Limited (CSL) tries to Develop innovative technology for ship design and building in partnership with eminent Indian maritime research institutes, such as CMERI and IIT Kharagpur.
- Protection of Intellectual Property: A major factor in shipbuilding is making sure that intellectual property is protected. To protect advancements in ship design and technology, this calls for stringent adherence to copyright and patent regulations. Example: Goa Shipyard Limited (GSL) Puts in place stringent internal policies and training courses to guard against intellectual property theft and uphold secrecy in the development of new technologies.
- Emerging technology: By allowing smart ship features, the integration of cutting-edge technology, such as the Internet of Things (IoT), is revolutionizing the shipbuilding industry. In fields like automation, artificial intelligence, and sustainable energy solutions, new options are always being

explored. Example: Mazagon Dock Shipbuilders Limited (MDL) tries to increase productivity and decrease downtime by integrating IoT-based sensors and data analytics systems for remote monitoring and predictive maintenance of onboard machinery.

- Industry Disruptions and Adaptations: The shipbuilding industry recognizes that technology improvements may cause disruptions to conventional shipbuilding techniques.

Environmental factor

Several environmental factors can have an impact on the shipbuilding industry, especially in the defense sector. A few Environmental factors impacting the shipbuilding sector include:

- Climate and weather have an impact on the shipbuilding process, particularly in outdoor construction sites. Cyclones and strong monsoons are examples of extreme weather events that might impact manufacturing schedules and efficiency.
- Increasing sea levels and altered weather patterns brought on by climate change have an impact on naval vessel design and specifications, necessitating modifications for greater sustainability and resilience.
- A considerable amount of water is needed in shipyards for a variety of operations. Shortages or problems with the quality of the water could make it difficult for the shipbuilding company to operate.
- Stricter environmental laws will force the shipbuilding industry to implement eco-friendly procedures, sustainable materials, and waste management techniques, which will affect expenses and operations alike. Regulations about Demolition Trash Management (2016) tackle the environmental effects of shipbreaking by mandating shipyards to implement sustainable methods for dismantling ships, such as reusing components and properly handling hazardous trash. As a result, shipbreaking facilities have been updated, and environmental performance has increased.

Legal and Regulatory Factors

- The Indian shipbuilding company is bound by particular laws about the defense industry because it is a defense PSU. To get contracts and maintain national security, compliance with these requirements is essential. For example, Various defense technologies and equipment cannot be exported due to international laws and national export control policies. Shipbuilders constructing vessels for export must abide by these rules to prevent penalties from the law and commerce.
- A varied workforce with a range of skill levels works in shipbuilding. Maintaining a profitable and legally compliant business depends on adherence to labor laws, which cover topics such as safety regulations and fair employment practices. Like the Minimum wage act, Factories act and Industrial disputes act. Shipyard workers are subject to rigorous safety regulations and working conditions under the Dock Workers (Regulation of Employment) Act. Under this act, shipyards are required to provide PPE, employ safe work procedures, and report incidents.
- Compliance with occupational health and safety standards is crucial, especially in the high-risk field of shipbuilding. This involves taking precautions to shield employees from potential risks related to heavy equipment, welding, and other industrial operations.
- Concerning emissions, pollution management, and waste disposal, the shipbuilding company is required to abide by environmental rules. This entails safe handling of hazardous chemicals and making sure that waste produced during shipbuilding is disposed of environmentally.

1.9. Portal Five Force Analysis

Competitive Rivalry - Low

GSL is up against several competitors in the shipbuilding sector, such as Mazagon Dock Limited and Cochin Shipyard Limited. However, because of GSL's deliberate diversification into distinctive goods

like Mine Countermeasure Vessels (MCMV), the immediate threat is minimal. By taking a proactive stance, GSL sets itself apart from its rivals and shows that it is long-term ready for any dangers.

Bargaining Power of Buyer - Low

GSL has built a solid reputation for high-quality goods, quick shipping, and first-rate after-sale support. Consumers favor GSL over other shipyards, strengthening its negotiating position. GSL is better positioned because of its defense-focused product line and a history of successful international vessel performance. One factor supporting GSL's strong negotiating position is the ships' very short build times in comparison to rivals.

Bargaining Power of Supplier - Medium

There used to be difficulties with GSL's reliance on expensive, specialized equipment that was only available in small quantities from foreign vendors. On the other hand, the company's enhanced indigenization as a result of its reaction to the Make in India Initiative has decreased its reliance on foreign suppliers. Due to this change, foreign suppliers' bargaining leverage has decreased, giving GSL greater control.

Threat of Substitution - Low

In the shipbuilding sector, there is little risk of substitution because countries always need to bolster their navies. Modern technology combined with the fact that water covers a large percentage of Earth guarantees that there will always be a need for seafaring boats. The risk of replacement is negligible because of this ongoing necessity.

Threat of New Entrant - Low

High entry barriers are caused by the capital-intensive and technologically complex nature of the shipbuilding sector as well as the demand for defense equipment from well-established companies. Operating in India's oversaturated military shipbuilding market, GSL looks for export orders to increase revenue, which makes it challenging and dangerous for new entrants to enter and survive.

1.10. SWOT Analysis

Strength

(a) The company's ability to grow its market in India and outside is facilitated by its excellent facilities and decades of experience in shipbuilding, ship repair, and varied goods.

(b) Using computerized modeling and drafting tools, in-house design skills have resulted in the creation of designs for a variety of vessels, including multipurpose vessels, advanced offshore patrol vessels, fast patrol vessels, survey vessels, waterjet fast attack craft, and landing ship tanks.

The company has acquired more FORAN software to facilitate the development of increasingly complex designs for a variety of vessels and applications.

(c) The ongoing building of two frigates will improve the shipyard's capacity and proficiency in designing and building extremely sophisticated platforms with heavy weaponry.

(d) The business uses an Enterprise Resource Planning (ERP) system that covers many operational stages. This makes it possible for all operations to be seamlessly integrated, handling all functions more quickly and effectively. Every process, from the beginning to the end, is entirely system-based.

(e) The company employs highly skilled workers who can take in and utilize advancements in technology. Employees receive both specialized training sessions and on-the-job training to ensure they are up to date on developing technology.

(f) To safeguard the IT Infrastructure, the e-procurement system has been successfully implemented, and other IT innovations have been successfully incorporated into the Company's daily operations, including cyber security.

(g) Having state-of-the-art machinery and new, advanced shipbuilding facilities that allow for the concurrent fabrication and fitting out of hull blocks. Technology is both absorbed and grasped at the same time.

(h) The Yard's extensive infrastructure is shown by the New Shiplift and Transfer System, which can dock and undock vessels up to 6000 tons. It also has two covered ship assembly workshops and two shore berths. The workshop is equipped with two 80-ton cranes that can operate in tandem to lift 160 tons.

(i) A state-of-the-art workshop for block assembly and steel preparation to implement the current block construction concept.

(j) The recently opened Virtual Reality Center aims to provide an immersive virtual reality setting to see 3D stereoscopic battleship models and utilize them for design evaluation.

(k) A history of prompt delivery and successful implementation.

(l) ISO 9001:2015, 14001:2015, and 45001:2018 compliant company that prioritizes quality.

(m) A more effective communication network and cohesive management.

Weaknesses

(a) Geographic restrictions on growth.

(b) Restricted draft and waterfront.

(c) Reliance on overseas vendors for complex machinery and systems because of a deficient industrial and domestic vendor base.

(d) The inability of certain skilled contractors to achieve the strict delivery deadlines because of their geographic location.

Opportunities

(a) The Indian Coast Guard and Navy's acquisition strategy, which aims to increase the size of the fleet.

(b) Expanding export potential with friendly countries and backing from the Indian government to broaden the export market via a Line of Credit.

(c) An increase in the amount of money allocated by the defense budget to modernization, maintenance, and upgrade projects.

(d) Increasing demand for the company's main products, OPVs, FPVs, and PCVs, as a result of the growing need for security around the globe for things like training, rescue, pollution control, and surveillance.

(e) New prospects in India's coastal shipping and interior waterways industries.

(f) Vast prospects for ship refits because replacement tonnage is expensive.

(g) Growing demand from the military and other government organizations for GRP/FRP boats for patrolling operations.

(h) More opportunities as a result of the government's emphasis on manufacturing in India, self-reliance, and a sharper focus on lowering defense imports.

(i) The development of two technologically complex frigates has created several chances to enter the league of more modern and sophisticated warship constructors.

(j) Possibility of maintaining a variety of vessels that the Yard builds and delivers to different clients through annual maintenance contracts.

(k) New business opportunities in the commercial shipbuilding industry and the rising need for autonomous and unmanned boats for surveillance and patrolling.

Threats

(a) Increasing competition in the market for shipbuilding and refits.

(b) The military's quick technological progress.

(c) Tight pricing competition that reduces export quantities in the global market.

(d) Supply chain disruption brought on by geopolitical unrest in European nations.

The SWOT analysis above makes it clear that there are a lot of prospects in the commercial and defense shipbuilding sectors, as well as a growing need for vessel maintenance and repair/refit. To take advantage of these possibilities and lessen the effect of its vulnerabilities and threats, GSL must use strategic alliances to capitalize on its strengths in infrastructure, design, and manufacturing facilities. The Company is concentrating its efforts on taking advantage of these prospects by improving its technological skills and making the best use of its resources.

1.11. VRIN

Resource or capability	Valuable (Seize opportunities and Eliminate Dangers)	Rare (held by a small number of companies in the sector)	Inimitable (Expensive to copy)	Non-substitutable
Software (BaaN, Lotus, etc.)	Yes	Yes	Yes	Yes
R&D (in-house design development)	Yes- GSL emphasizes customized ship designing.	Yes	Yes	Yes
Skilled manpower for production	Yes	Yes	Yes	Yes
Simulated Training facility	Yes	Yes	Yes	Yes
Infrastructure modernization	Yes- Ship lift and transfer systems enable GSL to dock boats up to 6,000 tons at a distance of 120 meters.	Yes	Yes	Yes

GRP/FRP (glass reinforced plastic) Production Technology	Yes	Yes	Yes	Yes
Demand for OPVs/FPVs	Yes	Yes	Yes	Yes

1.12. Generic strategies

Leadership in costs

The firm is more concerned with the quality, timely delivery, and after-sales care of the boats it builds, as seen by its financial records and history. The price is not the main topic. The primary explanation is that GSL produces defense vessels, that must withstand harsh weather and combat environments. Furthermore, because GSL is a shipbuilder specializing in defense, its clientele is restricted to the governments of friendly nations and India. Thus, rather than focusing on price, GSL thinks that timely delivery of high-quality vessels is what gives them a competitive edge. As a result, cost leadership has no bearing on how the organization defines its overall strategy.

Differentiation

What sets GSL apart from the competition most significantly is that it has a history of delivering boats to its clients ahead of schedule, something that is uncommon in the defense sector. GSL has evolved to the point where it can easily and within the agreed-upon time frame fulfill last-minute changes or modifications requested by the client for its boats. GSL has developed throughout time to shorten the time that its boats are manufactured. For instance, it can be shown that, in contrast to the four years that the firm required around five years ago, GSL now needs just one to two and a half years to build an offshore patrol vessel with zero mistakes.

Cost- Focus

GSL does not focus on the general cost strategy since it does not derive its advantage from costs that are perceived as being particularly significant to its consumers. Nonetheless, at PNC (Price Negotiation Committee) meetings, the business passes on to its clients any savings or cost reductions granted by its suppliers to GSL.

Focus on Differentiation

GSL strives to maintain its general differentiation approach, which takes the form of "delivery ahead of contractual time." The firm has implemented a significant modernization program aimed at achieving this goal, which would enable the employment of contemporary technologies in shipbuilding and thereby shorten the construction time. The modernization effort is intended to transform traditional shipbuilding into modular shipbuilding. Because the ship will be divided into smaller modules and the construction of numerous modules may be undertaken concurrently, modular shipbuilding will further minimize the construction duration.

Evolution of Strategies

The last several years have seen the evolution of GSL due to the Ministry of Defense's new defense procurement handbook, which promotes made-in-India and private company involvement in defense manufacturing competitions. The defense public sector undertakings that are now in operation have begun to compete and produce identical products to those found in the GSL product catalog. In an attempt to thrive in this competitive environment, GSL has chosen to expand the variety of goods it offers and introduce new lines of business that utilize technologies not offered by any Indian shipbuilder. The business is building up the infrastructure to take on uncommon projects whose technology is not available with any shipyard in India, in addition to the modular shipbuilding it has taken on as part of its

modernization initiative. The corporation is also modernizing to construct bigger ships, such as frigates, against which DPSU and private industry rivalry is little.

1.13. Competitors analysis

GSL's primary rivals are Indian shipbuilding enterprises that engage in direct defense shipbuilding, as the company is a DPSU in India. Even though there are many major and small organizations in the shipbuilding industry, it has been noted that the following businesses compete with GSL due to several aspects such as size, product line, business model, financial standing, etc.

Mazagon Dock Limited

The Mumbai-based Mazagon Dock Limited is a manufacturer of very complex and cutting-edge mercantile, naval, and submarine vessels as well as frigate-class ships. Mazagon Dock Limited is not directly competed with by GSL's present product line, which focuses on FPVs, OPVs, FRP Boats, and DCS; but, GSL's strategic decision to expand its product profile to include frigate class boats might potentially jeopardize Mazagon Dock Limited's company in the future.

Cochin Shipyard Limited

Cochin Shipyard Limited is based in Cochin and provides a wide range of products, such as air defense ships, product carriers, bulk carriers, and oil tankers. With its focus on FPVs, FRP boats, and OPVs, GSL competes in a distinct market and is not a serious competitor to Cochin Shipyard Limited. There isn't much direct rivalry because of their different product lines and GSL's emphasis on defense boats.

Hindustan Shipyard Limited

Hindustan Shipyard Limited is based in Visakhapatnam on the East Coast and is involved in the civilian and defense shipbuilding industries. It produces a range of boats. Although defense shipbuilding is GSL's

primary business, there is some overlap with OPV manufacture. Due to its established track record and proficiency in producing high-quality OPVs ahead of time, GSL is in a favorable position and faces less competition from Hindustan Shipyard Limited.

Garden Reach Shipbuilders and Engineers

Based in Kolkata, Garden Reach Shipbuilders and Engineers provide a broad range of goods comparable to GSL, such as patrol boats, landing ships, frigates, and corvettes. Even though both businesses seem to be rivals, GSL has a competitive edge because of its unique selling proposition (USP), which emphasizes fixed-cost projects and on-time delivery. Despite the seeming rivalry, GSL is in a stronger position because of its strategic approach.

Pipavav Shipyard (Reliance Naval and Engineering Company Limited)

Pipavav Shipyard, which was first founded in 1997 and subsequently acquired by the Reliance Group, diversified into the construction of military ships. It does, however, have financial difficulties due to its large debt of Rs. 5440 crores. Its feasibility has been questioned because of the inability to provide high-value projects at cheap costs. Given its financial difficulties and poor track record of project execution, Pipavav Shipyard does not currently represent a threat to GSL.

L&T Shipbuilding Limited

L&T Shipbuilding Limited, a Gujarat-based company that was founded in 2007, provides a range of products, including destroyers, frigates, offshore patrol boats, and submarines. Despite operating below capacity and having little expertise, L&T Shipbuilding gains from its promoters' substantial financial resources. GSL maintains a strong position in the industry because of its well-established experience and

knowledge. Although L&T Shipbuilding might eventually become a danger, GSL's position is safe for the time being.

2. CHAPTER 2: INTRODUCTION TO THE RESEARCH TOPIC

The shipbuilding industry has high working capital needs and is a capital-intensive business. For shipbuilding companies to remain profitable and financially sustainable, effective cash flow management is essential. The time interval between buying raw materials and collecting money from debtors is known as the cash conversion cycle (Das, 2015a). The cash conversion cycle makes it simple to assess how well liquidity management is working (Das, 2015b). It includes the number of days when sales, inventories, and payables are outstanding. Effective management of the Cash Conversion Cycle is essential for sustaining operations and preserving profitability in a capital-intensive business such as shipbuilding. Goa Shipyard is a major participant in the shipbuilding sector, and the effectiveness of its operations and liquidity management have a direct impact on its financial success. Also, DSO, DPO, and DIO are a part of the cash conversion cycle where DSO means Days Sales Outstanding (DSO) which is a measure of how long it typically takes for a business to collect its account receivables or how long credit sales take to be converted into cash (CFI Team, 2024), DPO means Days payable outstanding (DPO) which is a financial statistic that shows how long it typically takes a business to pay its trade creditors which might include financiers, suppliers, and vendors for its bills and invoices (HAYES, 2023), And DIO which is Days inventory outstanding (DIO) calculates the typical amount of time a business keeps inventory before turning it into revenues. The shorter the duration that cash is locked up in inventory and the lesser the chance that stock would become outdated, the lower the number (taulia, 2023). As a major participant in the shipbuilding industry, Goa Shipyard Limited has particular possibilities and problems that call for a careful analysis of its financial management along with comparison with other shipbuilding firms. Through the Cash Conversion Cycle, the research aims to evaluate the company's management and its influence on overall profitability. To analyze Profitability, we use three profitability metrics that is the

financial performance metric known as return on equity (ROE) is computed by dividing net income by shareholders' equity. ROE is referred to as the return on net assets since shareholders' equity is calculated by deducting debt from assets. ROE is regarded as a measure of a company's profitability and profit-generating efficiency. A company's management is more effective at producing revenue and growth from its equity funding the higher the ROE (FERNANDO, 2024), The effectiveness of a company's management in turning a profit from all of its assets as shown on its balance sheet is gauged by its return on assets, or ROA.

The higher the figure, which represents ROA as a percentage, the more effectively a company's management manages its balance sheet to produce profits. (BOYTE-WHITE, 2022), A financial measure called net profit margin is used to determine how much profit a business makes relative to its total sales. It calculates how much net profit a business makes for every dollar of revenue. When represented as a percentage, the net profit margin is calculated by dividing net profit by total revenue (CFI Team, 2023). Furthermore, a comparison study will be carried out to evaluate the financial management of Goa Shipyard about other shipbuilding companies. Through a comparative analysis of the financial performance indicators of comparable businesses in the sector, this technique seeks to pinpoint best practices and possible areas for development. This study offers significant insights into the financial well-being of Goa Shipyard Limited as well as the larger dynamics of financial management in the shipbuilding industry. However, The importance of small, medium, and microenterprises (SMMEs) in the economy of many nations is becoming more widely acknowledged. Therefore, to encourage economic growth, governments everywhere concentrate on the development of the SMME sector (Torres & Pina, n.d.). Despite being essential to international commerce and economic growth, the shipbuilding industry has particular financial management difficulties. Shipbuilding, in contrast to many other sectors, has lengthy construction cycles, and large capital needs, and is subject to changes in global commerce and commodity prices. A strong financial management plan is required in this complex climate to guarantee profitability and long-term viability. With a strategic emphasis, Goa Shipyard Limited is a

shipyard that can autonomously design and build cutting-edge, complex vessels to satisfy India's and its friendly neighbors' demands for maritime security. GSL has established itself as a pioneer in the sector because of its in-house Research and Development (R&D) section, which is outfitted with state-of-the-art CAD/CAM capabilities and AVEVA Marine software, which is approved by the Department of Scientific and Industrial Research.

This study tries to analyze the impact of the Net Cash Conversion Cycle, Days Sales Outstanding, Days Payable Outstanding, and Days Inventory Outstanding which are the three components of the Net Cash Conversion Cycle on the overall profitability of Goa Shipyard Limited. And also, to understand Comparative financial management, with other shipbuilding companies in the sector.

3. LITERATURE REVIEW

3.1. Financial Management

The article by (Waweru & Karanja Ngugi, 2014) aims to investigate how Kenyan Micro and Small Enterprises (MSEs) function in their financial management methods. Assessing the impact of financial innovations, investment activities, risk management techniques, and working capital management on MSE performance is one of the study's goals. Financial innovations, investment activities, risk management strategies, and working capital management are some of the elements under investigation. The main conclusions show that financial innovations, with profit generating as their major goal, have a considerable impact on MSE performance. Furthermore, it was shown that risk management techniques and investment activity were also very important to MSE performance. Additionally, the study found a statistically significant correlation between working capital and company performance, highlighting the need for efficient working capital management for increased profitability. However, the article by (Kennedy et al., 2006) gives an overview of the variables that affect the success or failure of small businesses, highlighting the significance of the business owner's skills, the available opportunities, and their intent or desire to seize the moment. To compare findings from a regional center

with businesses from Brisbane, the study compares the financial management practices and perceptions of tradespeople in the Construction industry in Queensland. The study focuses on the financial management skills and attitudes of people in the building industry. Participants in financial management training workshops filled out a self-administered questionnaire as part of the study's methodology, which focused on financial management practices, firm and individual characteristics, and job status. The primary findings of the research showed that there were notable variations in the attitudes and behaviors of industry participants, including employees and business owners. Also, (Musah et al., 2018) aimed to comprehend how these practices affect the growth and profitability of these kinds of enterprises. The analysis focuses on four major financial management indicators: working capital management, capital structure and financing, accounting information systems and financial reporting, and capital budgeting and non-current assets management. Although there is a favorable association between these financial management methods and the success of SMEs, the study finds that there are deficiencies in several areas, most notably in the application of capital budgeting strategies. The study (Fatoki, 2012) revealed little use of electronic record-keeping and accounting systems, as well as little financial planning and analysis. Micro-enterprises have difficulties in their working capital management processes and mostly use cost-plus pricing tactics. The study by (Abanis & Sunday Senior Lecturer KIU Aluonzi Burani Senior Lecturer KIU Byamukama Eliabu Senior Lecturer KIU, 2013) uses financial reporting, investment, financing, working capital management, and the application of accounting information technology. Cash management, inventory management, accounts receivable management, financing techniques, investment strategies, financial reporting, and the use of accounting information systems are important factors. As (Brijlal et al., 2014) identified Particularly in areas like cash budgeting, accounts receivable management, inventory control, and investment appraisal, the study finds large gaps in SMEs' financial management procedures. The results emphasize how crucial it is to provide focused interventions and education to improve the financial management skills of SMEs in Western Uganda. The research by (Zaheer Butt & Imran Hunjra, 2010)

includes working capital management, dividend policy, capital structure decisions, investment appraisal methods, and financial performance evaluation. The findings show a robust and encouraging correlation between organizational performance and financial management practices, emphasizing the critical role that working capital policy, capital structure choice, and financial evaluation play. The findings support each hypothesis and highlight how crucial thorough financial management techniques are to the development and effectiveness of organizations in Pakistani business. However, (Mulinge Nthenge et al., 2017) suggest that there are modest but positive correlations between these behaviors and financial success and that the variance in financial performance is influenced by the combined effect of these associations. To improve the financial performance of SMEs, the report suggests strengthening credit rules, government financing access initiatives, and techniques for making better financial decisions. Also, (Zada et al., 2021) examine the effects of Financial Reporting and Analysis, Investment, Working Capital Management (WCM), Financing, Accounting Information System (AIS), and Finance on the expansion of SMEs. The results show that these financial management techniques have a major beneficial influence on the expansion of SMFEs, underscoring the critical role that sound financial strategies play in the prosperity and long-term viability of SMFEs. (Osazefua Imhanzenobe, 2020) says by analyzing the link between several financial statistics and indicators of financial sustainability, such as return on assets, sustainable growth rate, and Altman Z-score, the study seeks to determine the relevance and coherence of this theory. The research entails the examination of certain ratios to discern groups of financial management practices and policies that have a consistent effect on financial sustainability. The efficiency ratio (asset turnover), the short-term profitability ratio (net profit margin), and other factors are important considerations. The results show that only net profit margin and asset turnover consistently affect sustainability across all models, even though all selected ratios significantly impact financial sustainability in at least one model. (Salem et al., n.d.) concludes by saying that growing demand for corporate sustainability and its positive impact on financial performance. Noteworthy findings include the importance of integrating sustainability into capital

budgeting decisions, considering the cost of capital in sustainability practices, and emphasizing profitability through sustainable initiatives. The study also underscores the crucial role of efficient working capital management and the potential for higher returns through sustainable investments. Additionally, it emphasizes the need for sustainable risk management and addresses the monitoring of corporate bankruptcy risks in the context of sustainable growth. (Alkaabi & Nobanee, n.d.) applies a mixed-methods approach that includes case studies, empirical evidence, and both qualitative and quantitative analysis. Findings, however, show that sustainability has a favorable effect on shareholder value, business success, and environmental conservation initiatives. The study also explores the prediction of financial hardship and highlights the need to take into account both financial and non-financial indicators to accurately forecast bankruptcy.

3.2. Ratio analysis

The research (Chen & Xu, 2023) compares China's manufacturing sector with Romania to examine how the COVID-19 epidemic has affected financial management methods in China. The study makes use of working capital ratios (net working capital ratio, quick ratio, and cash ratio), capital structure ratios (debt-to-equity ratio and financial autonomy ratio), and firm size proxy as independent variables in addition to dependent variables like return on assets (ROA) and return on equity (ROE). The results show that throughout the examined period, businesses' financial performance declined in the majority of manufacturing subsectors. The study also shows that increased business scale, appropriate liquidity management, and equity financing may enhance a company's financial performance. However, (Péron et al., 2010) aims to examine the conversion ratios in the worldwide fishmeal sector, namely the ratios of the number of wild fish collected, the amount of FMFOP produced as a result, and the ratio involving the production of aquaculture and FMFOP. The study presents the idea of "conversion ratios," specifically the "reduction ratio," which denotes the relationship between the number of wild fish and FMFOP. The investigation of reduction ratios indicates instances of employing alternative raw

materials, such as trimmings or "trash fish," in addition to tiny pelagic species. The article (Halkos & Tzeremes, 2012) tries to solve the difficulties that arise when measuring performance in different industrial sectors using financial ratios. The author pinpoints flaws in conventional ratio-based models and suggests fixes using rigorous sensitivity analysis and bootstrap methods. Important discoveries show that efficiency ratings vary by industry, emphasizing how crucial it is to use financial indicators carefully to accurately assess performance. As per (Delen et al., 2013) The purpose of the study is to determine and evaluate how different financial ratios affect two important performance metrics: return on equity (ROE) and return on assets (ROA). After a thorough assessment of the literature, the independent variables' financial ratios are determined and validated using exploratory factor analysis (EFA). The main conclusions highlight the importance of several factors in forecasting ROE and ROA, including the Sales Growth Rate, Asset Turnover Rate, Leverage Ratio, Debt Ratio, Earnings Before Tax-to-Equity Ratio, and Net Profit Margin. The research also highlights how these findings are consistent with the Dupont analysis tenets, highlighting the significance of particular financial characteristics in evaluating the overall success of the business. (Rodrigues & Rodrigues, 2018) takes a thorough approach, classifying businesses according to debt-related characteristics, profitability, and liquidity using discriminant and cluster analysis. The results show a great deal of variability in the sector, with certain clusters reflecting the most difficult circumstances that businesses must deal with. Ratio analysis emphasizes the potential and difficulties for businesses in varying financial situations by highlighting differences in debt levels, profitability, and liquidity across clusters. (Gavalas et al., 2022) speaks of Important financial parameters that are crucial for providing information including ROE, ROA, ROI, growth in profit, profit rate, debt ratio, current ratio, operating revenue, and shipbuilding cost. The study notably emphasizes the importance of customer-related variables for improved shipyard performance, whereas growth and learning aspects have less of an impact. Important conclusions highlight delivery time and shipbuilding cost as critical performance metrics, offering a thorough grasp of the competitive dynamics of the shipbuilding sector. Also (Emin Öcal et al., 2007) emphasizes the

significance of asset structure, activity efficiency, profit margin and growth, capital structure and profitability, and liquidity as essential components in comprehending the financial dynamics of construction enterprises. Statistical analysis is used in the validation step to demonstrate the connection between the identified elements and the nation's economic situation, therefore confirming the study's practical significance. Also, (Ali & Haque, 2014) uses various financial ratios, including Gross Profit Ratio, Net Profit Ratio, Operating Expenses Ratio, Operational Profit Ratio, Return on Total Resources, Return on Capital Employed, and Return on Shareholders Fund, which are calculated to evaluate the company's operational performance. The key findings reveal that Sahara Petrochemicals demonstrates superior operational and financial positions compared to National Petrochemicals, with specific areas of improvement identified for the latter, such as cost control, revenue generation, and enhancing liquidity.

3.3. Common size

The study by (Fuadi et al., n.d.) uses a quantitative technique together with a descriptive research strategy to evaluate the performance of the firm. Common size analysis of the income statement components net sales, cost of goods sold, gross profit, other revenue, and other expense categories as well as the use of common size analysis methods to determine the proportion of each component, are the main factors being examined. The primary conclusions draw attention to significant variations in net sales, gross profit, and costs, exposing both encouraging and unsettling facets of the business's financial performance. (Marginean et al., 2015) applies structural ratios to dynamic analysis, examining how different components affect the company's net income, especially in light of Romania's furniture sector. Important factors including operating, financial, and exceptional activities as well as internal rates of operating expenditure and revenue were analyzed in the study. The primary conclusions showed varying structural rates of outcomes, with a major emphasis on operating activities as a major source of revenue. The study emphasized the relationship between net profit and expenses related to human

resources, as well as the price of consumables and raw materials. The study by (Agustian et al., n.d.) investigates measures that affect financial performance using quantitative research techniques, namely common size analysis on BSI's income statement and balance sheet. A quantitative descriptive analysis is used in the approach to evaluate numerical data that was taken from the yearly reports of BSI. The factors that are being examined include revenue, costs, and assets. The main conclusions point to a growth in net profit and total assets, and a thorough examination of the common size analysis shows trends in each component. The report draws attention to three key areas: the popularity of particular banking products, operational efficiency achieved via cost reduction, and a strategic shift in liquidity management. The study by (Merlita et al., n.d.) utilizes the Common Size approach to assess yearly financial statements and compares them between the two years as part of a descriptive comparative research methodology. According to the results, operational income dropped significantly by 75.99% in 2020, resulting in an operating deficit of $2.80 trillion. The research demonstrates the usefulness of the Common Size analytic approach in assessing short-term financial performance and operational outcomes, as well as how well it identified the company's declining financial situation throughout the pandemic. (Ravinder & Muskula, n.d.) carries an extensive financial analysis of Bambino Agro Industries Limited. With a focus on important indicators such as sales turnover, gross block, inventory, sundry debtors, cash and bank balance, current liabilities, miscellaneous costs, and net current assets, the research sought to evaluate the company's financial performance using common size and ratio analysis. The findings indicated large swings in sales turnover, raw material costs, operational profit, assets, current liabilities, and miscellaneous expenses.

3.4. Cash Conversion Cycle

The article by (Beracah Majanga, n.d.) where the objective of the study is to look at the link between a company's profitability and liquidity as determined by the cash conversion cycle. With a focus on Malawian manufacturing enterprises from 2007 to 2015, it aimed to advance knowledge of financial

management, particularly concerning liquidity and its effect on company profitability. The study examines the connection between profitability and the cash conversion cycle using a panel data technique. The findings revealed that the cash conversion cycle and the company's return on equity and return on investment are inversely correlated by the study. Also, the cash conversion cycle has a considerable influence on company profitability, demonstrating the important role that corporate liquidity plays in influencing company success. However, an article (Yasir & Majid, 2014) on the cement industry finds that indicates an adverse relationship between the profitability of a company and its cash conversion cycle. which indicates that a shorter cash conversion cycle has a favorable impact on the firm's profitability, and also suggests that a firm's profitability may be increased by effective management of its current assets and liabilities as determined by the cash conversion cycle. A study by (Yilmaz & Nobanee, 2023) explores the determinants of the cash conversion cycle For six years (2013–2018), with a focus on 395 non-financial enterprises within the MENA region. The research investigates how working capital management is impacted by variables at the company, national, and industry levels. Key findings show that operational cash flow and sales growth have a substantial negative influence on CCC, pointing to better working capital management and increased liquidity. The study also shows how CCC and its constituent parts are affected by company size, tangibility, and variables unique to the sector and nation. However, the correlation between CCC and GDP growth rate, gearing, and market value/book value ratio varies depending on the sector and the nation. The article by (Nobanee et al., 2011) speaks about the relationship between a company's cash conversion cycle (CCC) and profitability, with a particular focus on Japanese companies that were listed between 1990 and 2004 on the Tokyo Stock Exchange. The primary conclusions show that there is a substantial inverse link between ROI and CCC, meaning that companies with shorter cash conversion cycles often have higher profitability. The study delves deeper into variances among various industry sectors and business sizes. Notable findings point to the influence of Japan's distinct organizational structure on this connection. A study (Christian Samosir, 2018) thorough inquiry into the link between financial performance and

numerous characteristics in manufacturing businesses listed on the Indonesian Stock Exchange revealed the study's goal. With leverage (LEV) serving as a control variable, the study examines the effects of the cash conversion cycle (CCC), company size (SIZE), and firm age (AGE) on return on assets (ROA) throughout 2012–2014 using a fixed effects model. Key findings reveal that longer tenure on the stock exchange and speedier recovery of receivables boost ROA and that the cash conversion cycle and business age have a beneficial impact on profitability. The research by (Khodaei Valahzaghard & Falahati Ghalhari, 2014) studies goal is to determine whether there is a CCC level that maximizes profitability for businesses by reducing opportunity and carrying costs. This study looks at how CCC and deviations from the ideal CCC level affected the profitability of 97 TSE-listed firms between 2005 and 2011. The primary findings show that there is no meaningful linear link between profitability and total CCC. However, the research shows that deviating from the ideal CCC level has a negative and substantial impact on profitability, highlighting how crucial it is to manage working capital effectively to preserve optimal CCC levels and maximize profitability. (Yazdanfar & Öhman, 2014) investigates how the cash conversion cycle (CCC) affects the profitability of small and medium-sized enterprises (SMEs) in Sweden in the retail, wholesale, metal, and restaurant sectors. The main objective is to determine the factors that affect the link between CCC and profitability, taking into account company size and age as controls. The findings reveal a strong inverse relationship between profitability and CCC. It is shown that younger and larger businesses are more lucrative. The link between CCC and profitability is also influenced by industry affiliation, which varies by sector. The report emphasizes how crucial it is to maximize working capital for SME profitability across a range of sectors through efficient CCC management. (Bhutto et al., 2015) examines the importance of working capital management in finance, highlighting how crucial it is to a company's value, profitability, and risk. To better understand the link between the Cash Conversion Cycle (CCC), business size, firm profitability, and aggressive/conservative working capital practices, the study compares and contrasts the performance management of 12 industrial groups in Pakistan.

The conclusions show that there are notable variations in CCC among businesses, with the oil and gas industry standing out. Furthermore, there is a significant association between conservative finance strategies and aggressive working capital investment plans. The study concludes that CCC has a positive link with total assets, return on assets, and investment policies of businesses, but a negative relationship with company size, sales revenue, return on equity, and financing policies.

4. RESEARCH GAP

A notable research gap exists where there is limited literature available concerning the Impact of the Cash Conversion Cycle and its components on profitability in shipbuilding firms also there are few kinds of research conducted concerning comparative financial management in the shipbuilding industry thus this research aims to find the Impact of Cash Conversion Cycle on profitability in Goa Shipyard Limited and also Perform Comparative financial management among major shipbuilding firms such as Mazagon Dock Limited, Cochin Shipyard Limited, Hindustan Shipyard Limited, Garden Reach Shipbuilders and L&T Shipbuilding Limited.

5. RESEARCH QUESTIONS

RQ1: What has been the trend in Goa Shipyard Limited's Net Cash Conversion Cycle? And also, How does DSO, DPO, and DIO contribute to the NCCC's overall trend?

RQ2: How does Goa Shipyard Limited's Net Cash Conversion Cycle (NCCC) impact its profitability indicators, such as ROE, ROA, and NPM?

RQ3: What is the individual impact of Days Sales Outstanding (DSO), Days Payable Outstanding (DPO), and Days Inventory Outstanding (DIO) on the profitability metrics of Goa Shipyard Limited?

RQ4: How does the ratio analysis of Goa Shipyard Limited vary over the years? Also, In comparison to its competitors, what are the relative strengths and weaknesses of Goa Shipyard Limited in terms of financial ratios?

RQ5: What are the proportional representations of various financial components in the Common Size Income Statements and Balance Sheets of Goa Shipyard Limited over the study period? How do the patterns and trends in the financial structure of Goa Shipyard compare to its competitors based on the Common Size Analysis?

6. RESEARCH OBJECTIVES

1. To Calculate and Identify the Net Cash Conversion Cycle of Goa Shipyard Limited over the years and to find out how DSO, DPO, and DIO contribute to the overall Trend.
2. To Analyse the Impact of NCCC on the Profitability (ROE, ROA, NPM) of Goa Shipyard Limited.
3. To Analyse the Impact of DSO, DPO, and DIO on the Profitability (ROE, ROA, NPM) of Goa Shipyard Limited.
4. To Perform ratio analysis to assess the financial performance of Goa Shipyard Limited over the years and Compare amongst Competitors.
5. To Prepare and Analyse Common size statements using the Balance sheet and Profit and Loss statements of GSL and its competitors for a comprehensive financial analysis.

7. RESEARCH HYPOTHESIS

H1a: Net Cash Conversion cycle has a significant impact on the ROE of Goa Shipyard Limited.

H1b: Net Cash Conversion cycle has a significant impact on the ROA of Goa Shipyard Limited.

H1c: Net Cash Conversion cycle has a significant impact on the NPM of Goa Shipyard Limited.

H2a: Days Sales Outstanding has a significant impact on the ROE of Goa Shipyard Limited.

H2b: Days Sales Outstanding has a significant impact on the ROA of Goa Shipyard Limited.

H2c: Days Sales Outstanding has a significant impact on the NPM of Goa Shipyard Limited.

H3a: Days Payable Outstanding has a significant impact on the ROE of Goa Shipyard Limited.

H3b: Days Payable Outstanding has a significant impact on the ROA of Goa Shipyard Limited.

H3c: Days Payable Outstanding has a significant impact on the NPM of Goa Shipyard Limited.

H4a: Days Inventory Outstanding has a significant impact on the ROE of Goa Shipyard Limited.

H4b: Days Inventory Outstanding has a significant impact on the ROA of Goa Shipyard Limited.

H4c: Days Inventory Outstanding has a significant impact on the NPM of Goa Shipyard Limited.

8. METHODOLOGY

To analyze the impact of the Net Cash Conversion Cycle on the Profitability of Goa Shipyard Limited The data was derived from the annual reports which are the secondary sources from which the data of the chosen firm for the period 2015 to 2023 was gathered for this study. Days Sales Outstanding, Days Inventory Outstanding, and Days Payment Outstanding are used to structure the Net Cash Conversion Cycle. To analyze the Impact of NCCC, DSO, DPO, and DIO on Profitability (ROE, ROA, NPM) We used Regression analysis on a secondary data software tool known as Greatl. The study also used a line Chart. Where Ideally A shorter cash conversion cycle improves the organization's Profitability. For the objective of comparing financial management, notable shipbuilding Firms have been chosen for the research. Where it is analyzed using a Common size Statement and Ratio analysis of Goa shipyard limited years data from 2015 to 2013 and for a comparative study of the year 2023-24 data used. The formula used for the Calculation of the Net Cash Conversion Cycle is mentioned below which was derived from (Uyar et al., 2009):

Net Cash Conversion Cycle = Days of Sales Outstanding + Days of Sales in Inventory - Days of Payables Outstanding

The three variables that CCC is reliant upon are defined as follows in the formula above:

$$\text{Days of Sales Outstanding} = \frac{\text{Accounts receivables}}{\text{Sales} / 365}$$

$$\text{Days of Sales in Inventory} = \frac{\text{Inventories}}{\text{Cost of goods sold} / 365}$$

$$\text{Days of Payables Outstanding} = \frac{\text{Accounts payables}}{\text{Cost of goods sold} / 365}$$

Also, the formula of Profitability metrics from the following Research papers (Ichsani & Suhardi, 2015), (Ao & International Association of Engineers., 2008), (Nariswari & Nugraha, 2020) used for this research are as follows:

$$\text{Return On Equity} = \frac{\text{Net Profit}}{\text{Total Equity}} * 100$$

$$\text{Return on Assets} = \frac{\text{Net Profit}}{\text{Assets}} *100$$

$$\text{Net Profit Margin} = \frac{\text{Net Profit}}{\text{Sales}} *100$$

9. RESEARCH DESIGN

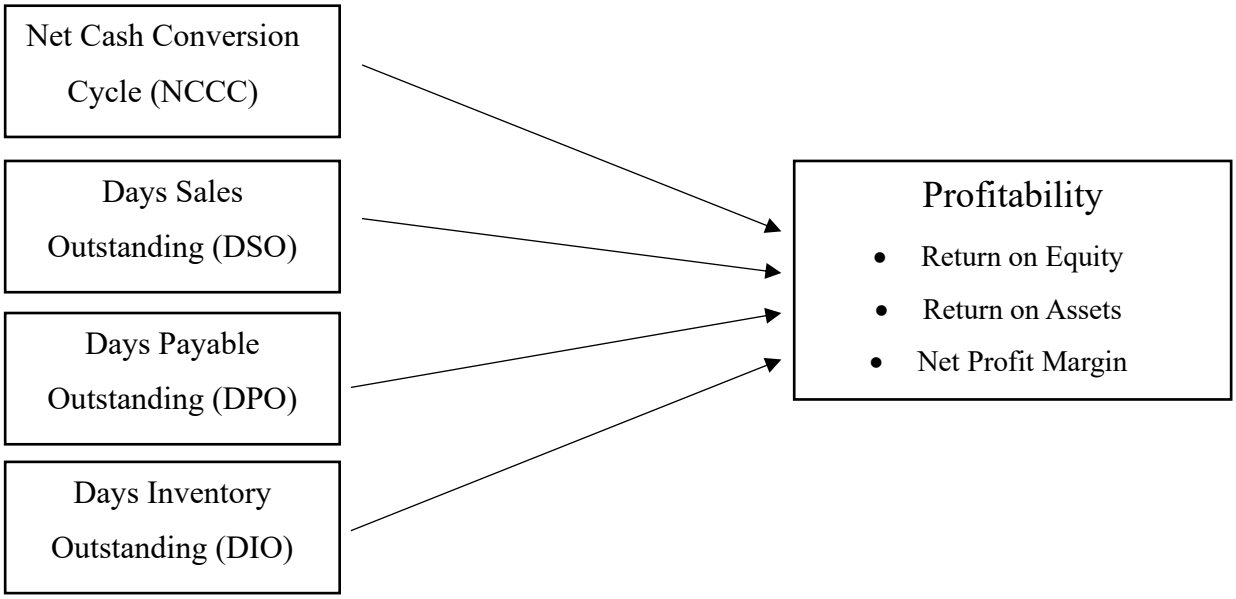
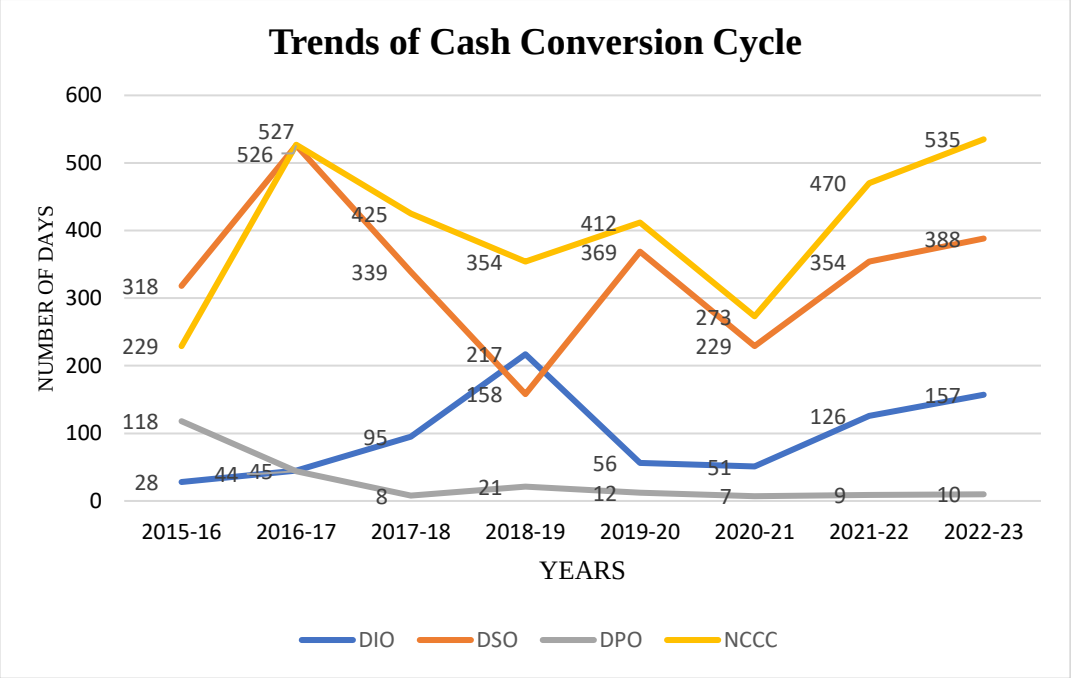


Figure 1 Research Design of Impact of NCCC, DSO, DPO, and DIO on Profitability (ROE, ROA, NPM)

Source: Author's Computation

10. DATA ANALYSIS

YEARS	DIO (DAYS)	DSO (DAYS)	DPO (DAYS)	NCCC (DAYS)
2015-16	28	318	118	229
2016-17	45	526	44	527
2017-18	95	339	8	425
2018-19	217	158	21	354
2019-20	56	369	12	412
2020-21	51	229	7	273
2021-22	126	354	9	470
2022-23	157	388	10	535



There have been discernible patterns in Goa Shipyard Limited's cash conversion cycle (CCC) over time. Days sales outstanding (DSO), which measures the typical time it takes to get paid following a transaction, has seen considerable volatility, peaking in 2016–17 and then gradually declining until 2020–21, when it then slightly increased. This points to possible improvements in the company's early management of its accounts receivable, followed by a possible delay in collections. On the other hand, improved inventory management efficiency is shown by the day's inventory outstanding (DIO), which measures how quickly inventory is sold. DIO has usually decreased during this time until 2022-23. Days payable outstanding (DPO), a measure of the typical time it takes to pay suppliers, has fluctuated over time but has been low overall, indicating stable or marginally better payment procedures. Together, these elements make up the net cash conversion cycle (NCCC), which has demonstrated a mixed trend with peaks and troughs but an overall upward trajectory. This suggests that the time it takes the business to turn its investments in accounts receivable and inventory into cash may be about to increase. To maintain optimal cash flow and operational efficiency, it is necessary to closely examine working capital management procedures in light of this trend and how they impact the profitability of the firm.

Model 1: OLS using observations 1-8				
Dependent variable: ROE				
Heteroskedasticity-robust standard errors variant HC1				
	coefficient	std. error	t-ratio	p-value
const	0.261439386	0.091447463	2.858902557	0.028843125
NCCC	-0.000295167	0.000195425	-1.510390666	0.181688718
Mean dependent var	0.14245	S.D. dependent var	0.051477013	
Sum squared resid	0.010931867	S.E. of regression	0.042684632	
R-squared	0.410654975	Adjusted R-squared	0.312430805	
F(1,6)	2.281279963	P-value(F)	0.181688718	
Log-likelihood	15.03055063	Akaike criterion	-26.06110126	
Schwarz criterion	-25.90221818	Hannan-Quinn	-27.13270379	

As Results displayed in Table 1 of Ordinary Least Squares (OLS) regression analysis demonstrate that the Net Cash Conversion Cycle has no significant impact on Return on Equity as the P value is higher than the significance level of 5% Thus hypothesis H1a is rejected hence there no significant impact of Net Cash Conversion Cycle (NCCC) on Return on Equity (ROE).

Model 2: OLS, using observations 1-8		
Dependent variable: ROE		

Heteroskedasticity-robust standard errors variant HC1				
	coefficient	std. error	t-ratio	p-value
const	0.355544	0.04644	7.655916	0.001564
DIO	-0.00041	0.000143	-2.83514	0.047099
DSO	-0.00047	9.92E-05	-4.78092	0.00877
DPO	-0.00052	0.000213	-2.43203	0.071823
Mean dependent var	0.14245	S.D. dependent var	0.051477	
Sum squared resid	0.002622	S.E. of regression	0.025605	
R-squared	0.858623	Adjusted R-squared	0.752591	
F(3, 4)	7.799434	P-value(F)	0.037963	

Log-likelihood	20.74089	Akaike criterion	-33.4818	
Schwarz criterion	-33.164	Hannan-Quinn	-35.625	

As Results displayed in Table 2 of Ordinary Least Squares (OLS) regression analysis demonstrate that Days Inventory Outstanding has a significant impact on Return on Equity as the P value is less than the significance level of 5% Thus hypothesis H4a is accepted hence there is a significant impact of Days Inventory Outstanding on Return on Equity (ROE). Also, Days Sales Outstanding has a significant impact on Return on Equity as the P value is less than the significance level of 5% Thus hypothesis H2a is accepted hence there is a significant impact of Days Sales Outstanding on Return on Equity (ROE). Days Payable Outstanding has a significant impact on Return on Equity as the P value is less than the significance level of 10% Thus hypothesis H3a is accepted hence there is a significant impact of Days Sales Outstanding on Return on Equity (ROE).

Model 3: OLS, using observations 1-8				
Dependent variable: ROA				
Heteroskedasticity-robust standard errors variant HC1				
	coefficient	std. error	t-ratio	p-value
const	0.083139	0.050192	1.656407	0.148717
NCCC	-9.21E-05	0.000108	-0.85523	0.425252
Mean dependent var	0.046013	S.D. dependent var	0.024075	

Sum squared resid	0.003316	S.E. of regression	0.023508	
R-squared	0.182774	Adjusted R-squared	0.04657	
F(1, 6)	0.731417	P-value(F)	0.425252	
Log-likelihood	19.80264	Akaike criterion	-35.6053	
Schwarz criterion	-35.4464	Hannan-Quinn	-36.6769	

As Results displayed in Table 3 of Ordinary Least Squares (OLS) regression analysis demonstrate that the Net Cash Conversion Cycle has no significant impact on Return on Assets as the P value is higher than the significance level of 5% Thus hypothesis H1b is rejected hence there no significant impact of Net Cash Conversion Cycle (NCCC) on Return on Asset (ROA).

Model 4: OLS, using observations 1-8				
Dependent variable: ROA				
Heteroskedasticity-robust standard errors variant HC1				
	coefficient	std. error	t-ratio	p-value
const	0.138982	0.025219	5.510889	0.00529
DIO	-0.00019	7.44E-05	-2.55488	0.062979
DSO	-0.00019	4.27E-05	-4.43373	0.011389
DPO	-0.00039	0.000119	-3.25092	0.031349
Mean dependent var	0.046013	S.D. dependent var	0.024075	
Sum squared resid	0.000792	S.E. of regression	0.01407	

R-squared	0.804838	Adjusted R-squared	0.658467	
F(3, 4)	10.10944	P-value(F)	0.024446	
Log-likelihood	25.53099	Akaike criterion	-43.062	
Schwarz criterion	-42.7442	Hannan-Quinn	-45.2052	

As Results displayed in Table 4 of Ordinary Least Squares (OLS) regression analysis demonstrate that Days Inventory Outstanding has a significant impact on Return on Assets as the P value is less than the significance level of 10% Thus hypothesis H4b is accepted hence there is a significant impact of Days Inventory Outstanding on Return on Assets (ROA). Also, Days Sales Outstanding has a significant impact on Return on Assets as the P value is less than the significance level of 5% Thus hypothesis H2b is accepted hence there is a significant impact of Days Sales Outstanding on Return on Assets (ROA). Days Payable Outstanding has a significant impact on Return on Assets as the P value is less than the significance level of 5% Thus hypothesis H3b is accepted hence there is a significant impact of Days Sales Outstanding on Return on Assets (ROA).

Model 5: OLS, using observations 1-8				
Dependent variable: NPM				
Heteroskedasticity-robust standard errors variant HC1				
	coefficient	std. error	t-ratio	p-value
const	1.272717	0.360473	3.530684	0.012357
NCCC	-0.00266	0.001007	-2.6408	0.038499
Mean dependent var	0.200875	S.D. dependent var	0.545718	
Sum squared resid	1.466571	S.E. of regression	0.494397	

R-squared	0.296492	Adjusted R-squared	0.179241	
F(1, 6)	6.973841	P-value(F)	0.038499	
Log-likelihood	-4.56545	Akaike criterion	13.1309	
Schwarz criterion	13.28978	Hannan-Quinn	12.0593	

The results displayed in Table 5 of Ordinary Least Squares (OLS) regression analysis demonstrate that the Net Cash Conversion Cycle has a significant impact on the Net profit Margin as the P value is less than the significance level of 5% Thus hypothesis H1c is accepted hence there is a significant impact of Net Cash Conversion Cycle (NCCC) on Net Profit Margin (NPM).

Model 6: OLS, using observations 1-8				
Dependent variable: NPM				
Heteroskedasticity-robust standard errors variant HC1				
	coefficient	std. error	t-ratio	p-value
const	1.280525	0.82395	1.554129	0.195122
DIO	-0.0009	0.003109	-0.28804	0.787622
DSO	-0.00317	0.00136	-2.33069	0.080192
DPO	0.002426	0.004048	0.599424	0.58119
Mean dependent var	0.200875	S.D. dependent var	0.545718	
Sum squared resid	1.30192	S.E. of regression	0.570508	
R-squared	0.375474	Adjusted R-squared	-0.09292	
F(3, 4)	3.646391	P-value(F)	0.121747	

Log-likelihood	-4.0891	Akaike criterion	16.1782	
Schwarz criterion	16.49597	Hannan-Quinn	14.035	

As Results displayed in Table 6 of Ordinary Least Squares (OLS) regression analysis demonstrate that Days Inventory Outstanding has no significant impact on Net Profit Margin as the P value is more than the significance level of 5% Thus hypothesis H4c is rejected hence there is no significant impact of Days Inventory Outstanding on Net Profit Margin (NPM). Also, Days Sales Outstanding has a significant impact on Net Profit Margin as the P value is less than the significance level of 10% Thus hypothesis H2c is accepted hence there is a significant impact of Days Sales Outstanding on Net Profit Margin (NPM). Days Payable Outstanding has no significant impact on Net Profit Margin as the P value is more than the significance level of 5% Thus hypothesis H3c is rejected hence there is no significant impact of Days Sales Outstanding on Net Profit Margin (NPM).

GOA SHIPYARD LIMITED:

COMMON SIZE STATEMENT OF PROFIT AND LOSS ACCOUNT FROM 2015-16 TO 2022-23								
PARTICULARS	**2022-23**	**2021-22**	**2020-2021**	**2019-2020**	**2018-2019**	**2017-2018**	**2016-2017**	**2015-2016**
Revenue from Operations:								
Turnover (Value of Production)	78.88 %	81.38 %	84.53%	84.25%	85.96%	92.44%	93.45%	90.24%

Other Operating Revenue	4.25 %	4.24%	3.38%	2.64%	5.86%	2.12%	2.29%	4.52%
	83.14 %	85.61 %	87.92%	86.89%	91.82%	94.56%	95.74%	94.76%
Other Income	16.86 %	14.39 %	12.08%	13.11%	8.18%	5.44%	4.26%	5.24%
Total Income	100 %	100.0 0%	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
EXPENSES:								
Cost of Materials Consumed	27.39 %	33.03 %	26.02%	29.51%	33.34%	40.32%	46.37%	39.03%
Cost of Base and Depot Spares	4.14 %	2.92%	0.00%	16.44%	0.00%	0.00%	0.00%	0.00%
Employees Benefit Expenses	15.41 %	16.34 %	14.12%	6.40%	17.83%	13.77%	14.06%	17.90%
Sub-contract Expenses	13.41 %	8.83%	5.32%	9.90%	9.40%	8.24%	10.47%	11.67%
Direct Expenses	6.39 %	6.14%	21.21%	1.67%	0.77%	4.55%	2.55%	4.00%
Finance Cost	0.04 %	0.03%	0.03%	4.43%	0.37%	0.05%	0.16%	0.13%

Depreciation & Amortisation Expenses	5.91 %	6.48%	5.12%	5.87%	4.56%	2.93%	3.35%	3.34%
Other Expenses	6.89 %	7.76%	6.12%	0.47%	11.16%	5.18%	5.73%	9.51%
Corporate Social Responsibility Expenditure	0.38 %	0.52%	0.59%	0.58%	0.44%	0.20%	0.31%	0.18%
Provisions	0.44 %	1.87%	1.02%	75.28%	0.78%	1.99%	0.89%	0.48%
Total Expenses	80.40 %	83.92 %	79.56%	24.72%	78.66%	77.24%	83.90%	86.24%
Profit for the year	14.78 %	11.69 %	13.07%	18.45%	13.33%	14.96%	10.65%	7.74%

Source: (*2017-18*, n.d.; *2018-19*, n.d.; *2020-21*, n.d.; *2022-23*, n.d.; A PREMIER DPSU SHIPYARD Passion for Excellence, n.d.; GOA SHIPYARD LIMITED A PREMIER DPSU SHIPYARD Passion for Excellence, n.d.; Performance Highlights-FY 16-17 Performance Parameter, n.d.)

As per the Common size statement over the years, it is seen that major of its revenue from Goa Shipyard Limited (GSL) had a large gain in income from 2016–17 to 2017–18, mainly due to noteworthy increases in contract revenue, notably in ship construction and product sales. The firm had strong development and expansion throughout this time, demonstrating its ability to take

advantage of a variety of revenue sources and market possibilities. Also, it is noted that since last year Export business has seen a significant rise along with government contracts private contracts have also seen a rise which brings new opportunities to Goa Shipyard Limited. Nevertheless, there were variations in revenue patterns in the years that followed. Specifically, in 2018–19 and 2020–21, there were slight drops in revenue, which were partly compensated for by revenue from other operational sources. GSL showed resiliency in the face of difficulties, as seen by the little increases in revenue in 2019–20 and 2022–2023. These variations demonstrate GSL's flexible approaches to managing market conditions and maintaining its place in the sector. Goa Shipyard Limited, which specializes in building ships, has observed a change in its clientele over the last several years. The amount of government contracts is still substantial, but the number of private purchasers from Europe and Asia has increased. Remarkably, the firm has also seen an increase in earnings from ship repairs, opening up a new international market. Furthermore, Goa Shipyard Limited has seen a discernible rise in other revenue streams. This development has been attributed to many factors, including the selling of scrap and the amount of duty reductions collected. Additionally, from 5.24% in 2015–16 to 16.86% in 2022–2023, the company's other income has increased significantly. This indicates a rise of 11.62% throughout the preceding eight years. 89% of the total other revenue came from interest income received from banks, which was the main driver of this increase. The price of raw materials has come down over time, but the amount purchased has increased steadily while opening and closing stock have stayed relatively constant. The corporation has spent money on depot parts and base space during the last four years. Depot spares are kept in facilities located on land and help with ship maintenance and repairs for the company's fleet of vessels. Base spares are the basic spare components required to keep ships functioning. Furthermore, the need for shipbuilding and upkeep has resulted in a notable increase in subcontract expenditures at Goa Shipyard Limited over time. On the other hand, a constant increase in expenses has been seen in other categories, such as employee benefit expenses, direct expenses, financing costs, depreciation and amortization charges,

miscellaneous expenses, corporate social responsibility expenditures, and provisions. In the end, analysis of profitability has revealed fluctuations throughout time. Although the corporation had been more successful in the past, growing component costs caused profitability to decline during the COVID-19 phase in 2020–21. Profitability is still increasing, though.

COMMON SIZE STATEMENT OF BALANCE SHEET FROM 2015-16 TO 2022-23								
PARTICULARS	**2022-23**	**2021-22**	**2020-21**	**2019-20**	**2018-19**	**2017-18**	**2016-17**	**2015-16**
ASSETS								
Non-current Assets								
Property, Plant, and Equipment	15.81 %	15.83 %	17.72 %	23.14 %	23.95 %	27.70 %	29.60 %	20.75 %
Intangible Assets	0.05%	0.02%	0.02%	0.02%	0.02%	0.03%	0.03%	0.02%
Right-of-use-Assets	0.07%	0.11%	6.84%	7.39%	0.00%	0.00%	0.00%	0.00%
Capital Work-in-Progress	1.80%	6.99%	0.05%	0.09%	10.20 %	7.41%	3.34%	12.07 %
Financial Assets:	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
(i) Loans	0.01%	0.02%	0.10%	0.12%	0.16%	0.15%	0.11%	0.15%
(ii) Other Financial Assets	0.01%	0.70%	0.23%	0.63%	0.87%	3.66%	7.33%	0.00%
Other Non-current Assets	0.02%	0.07%	0.20%	0.24%	1.87%	2.04%	1.81%	1.43%

Total Non-current Assets	17.77 %	23.73 %	25.16 %	31.62 %	37.07 %	40.98 %	42.21 %	34.42 %
Current Assets	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Inventories	1.86%	1.01%	5.88%	10.40 %	7.83%	4.62%	21.22 %	32.16 %
Financial Assets:	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
(i) Trade Receivables	2.75%	3.98%	4.80%	3.69%	4.87%	13.19 %	4.94%	12.31 %
(ii) Cash and Cash Equivalents	8.04%	2.60%	8.30%	26.60 %	8.92%	11.61 %	22.73 %	11.72 %
(iii) Bank Balances other than Cash and Cash Equivalents	52.23 %	51.35 %	40.69 %	7.39%	34.96 %	23.99 %	0.00%	0.26%
(iv) Loans	0.00%	0.01%	10.98 %	14.46 %	1.44%	1.84%	4.58%	5.29%
(v) Other Financial Assets	1.39%	1.23%	0.00%	0.00%	2.61%	2.31%	2.10%	0.84%
Contract Assets	3.14%	1.93%	1.16%	2.31%	0.00%	0.00%	0.00%	0.00%
Current Tax Assets (Net)	1.39%	1.39%	1.19%	1.31%	0.47%	0.60%	2.12%	2.81%
Other Current Assets	11.40 %	12.76 %	1.84%	2.23%	1.82%	0.85%	0.11%	0.19%
Total Current Assets	82.23 %	76.27 %	74.84 %	68.38 %	62.93 %	59.02 %	57.79 %	65.58 %

TOTAL ASSETS	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %
EQUITY AND LIABILITIES								
Equity								
Equity Share Capital	0.95%	1.22%	1.38%	1.82%	2.25%	2.50%	2.63%	1.51%
Other Equity	19.39 %	22.92 %	24.73 %	30.17 %	33.03 %	36.61 %	34.04 %	34.05 %
Total Equity	20.34 %	24.14 %	26.11 %	31.99 %	35.28 %	39.12 %	36.67 %	35.55 %
Non-current Liabilities	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Financial Liabilities:	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
(i) Lease Liabilities	0.06%	0.10%	0.03%	0.07%	0.00%	0.00%	0.00%	0.00%
(ii) Trade Payables	-	-	-	-	2.25%	0.00%	-	-
(iii) Other Financial Liabilities	0.00%	0.01%	0.09%	0.14%	0.26%	0.35%	0.03%	0.02%
Provisions	0.44%	0.42%	0.64%	0.84%	1.05%	0.91%	1.02%	1.15%
Deferred Tax Liabilities (Net)	0.19%	0.14%	0.21%	0.16%	0.28%	0.23%	0.57%	0.12%

Other Non-current Liabilities	9.17%	12.73 %	11.64 %	15.30 %	19.98 %	23.19 %	18.12 %	21.79 %
Total Non-current Liabilities	9.86%	13.40 %	12.61 %	16.51 %	21.57 %	24.69 %	19.74 %	23.09 %
Current Liabilities	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Financial Liabilities:								
(i) Lease Liabilities	0.01%	0.02%	0.03%	0.03%	0.00%	0.00%	0.00%	0.00%
(ii) Trade Payables	0.00%	0.00%	0.47%	0.92%	0.86%	1.99%	1.65%	2.02%
a. total outstanding dues of micro-enterprises and small enterprises; and	0.12%	0.07%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
b. total outstanding dues of creditors other than micro-enterprises and small enterprises	6.61%	5.62%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

(iii) Other Financial Liabilities	1.33%	1.72%	8.86%	7.80%	9.74%	11.37 %	11.42 %	13.17 %
Contract Liabilities	56.23 %	49.45 %	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other Current Liabilities	4.96%	4.56%	50.96 %	40.84 %	30.27 %	19.67 %	29.11 %	24.79 %
Provisions	0.53%	1.03%	0.97%	1.90%	2.28%	3.17%	1.42%	1.39%
Total Current Liabilities	69.80 %	62.46 %	61.28 %	51.50 %	43.15 %	36.19 %	43.59 %	41.36 %
TOTAL EQUITY AND LIABILITIES	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %	100.00 %

Source: (*2017-18*, n.d.; *2018-19*, n.d.; *2020-21*, n.d.; *2022-23*, n.d.; A PREMIER DPSU SHIPYARD Passion for Excellence, n.d.; GOA SHIPYARD LIMITED A PREMIER DPSU SHIPYARD Passion for Excellence, n.d.; Performance Highlights-FY 16-17 Performance Parameter, n.d.)

Goa Shipyard Limited's common-size balance sheet analysis shows many noteworthy patterns in the company's resource allocation policies and financial structure over time. The percentage of property, plant, and equipment (PPE) has consistently decreased, from 29.60% in 2015–16 to 15.81% in 2022–2023; this suggests that investment priorities may be shifting to other asset categories or that asset usage efficiency may have grown. On the other hand, the percentage of current assets has typically gone up, especially in areas like bank balances and cash equivalents. The notable rise in cash and cash equivalents from 11.72% in 2015–16 to 8.04% in 2022–2023 indicates that improving liquidity and short-term financial management are priorities. bank balances also increased, rising from 0.26%

in 2015–16 to 52.23% in 2022–2023. Furthermore, the large shifts in contractual obligations or project-related liabilities are shown by the prominent category of contract liabilities, which will account for 56.23% of total liabilities in 2022–2023. Furthermore, the notable increase in "other current liabilities" from 0.19% in 2015–16 to 4.96% in 2022–2023 implies that short-term financial obligations outside trade payables and contingencies are becoming more widespread. Moreover, the decrease in the percentage of provisions from 1.51% in 2015–16 to 0.53% in 2022–2023 suggests a less risky strategy for managing expected liabilities or a decreased requirement for future provisions. This pattern indicates advancements in operational effectiveness or risk management techniques. Last but not least, the prominent category of contract assets suggests a change in revenue recognition policies toward long-term projects or contracts with protracted revenue recognition periods.

RATIOS	**2022-23**	**2021-22**	**2020-21**	**2019-20**	**2018-19**	**2017-18**	**2016-17**	**2015-16**
OPERATING CASHFLOW RATIO	25.12 %	19.40 %	41.89 %	7.77%	45.32 %	58.87 %	39.22 %	-25.06 %
RETURN ON ASSETS RATIO	2.52%	2.12%	3.04%	6.17%	5.09%	9.35%	5.30%	3.22%
NET PROFIT MARGIN RATIO	14.78 %	11.69 %	13.07 %	18.45 %	13.33 %	14.96 %	10.65 %	7.74%

CURRENT RATIO	117.81 %	122.10 %	122.13 %	132.78 %	145.84 %	163.06 %	132.58 %	158.56 %
CASH RATIO	86.36 %	86.38 %	79.95 %	66.00 %	101.70 %	98.36 %	52.13 %	28.97 %
WORKING CAPITAL TURNOVER RATIO	114.10 %	112.70 %	150.83 %	172.05 %	177.09 %	258.94 %	335.34 %	162.90 %

The capacity of the business to produce enough cash flow from operations to pay for its immediate liabilities is shown by the operating cash flow ratio. The ratio has a volatile pattern, with a notable decline in 2015–16 and a steady rise until 2018–19, indicating enhanced operational cash generation. The cash flow management faced difficulties as seen by the steep fall in 2019–20 due to Corona Virus Pandemic. Nevertheless, the cash flow management recovery in 2020–21 was a result of strategy changes or better company operations.

The efficiency with which the business uses its assets to produce profits is shown by the Return on Asset (ROA) Ratio. From 2016–17 to 2021–22, the trend shows a modest decline, suggesting a potential decline in asset profitability or efficiency. Nevertheless, 2019–20 exhibits a sharp fall in ROA, indicating a major impact on profitability possibly as a result of operational difficulties or outside variables influencing asset performance.

The proportion of profit produced for each rupee of revenue generated is measured by the Net Profit Margin Ratio, which indicates the profitability of the business. The graph shows variations over time, with a drop in 2019–20, as a result of higher expenses or lower sales income. Nonetheless, the margin shows signs of improvement in 2020–21, due to cost-cutting measures or higher income creation.

The current ratio calculates how much of the company's current assets are used to pay for short-term obligations. Over time, the ratio has remained comparatively stable, demonstrating steady liquidity control techniques. A little decline has been noted recently, though, which indicates adjustments to the company's investment plans or financial situation.

The Cash Ratio evaluates how well the firm can use its cash and cash equivalents to pay down its short-term debt. The pattern exhibits oscillations, with a significant uptick in 2018–19 and modest changes in the years that followed. This might be a result of adjustments made to the company's cash management guidelines or variations in its cash reserves.

The working capital turnover ratio increased noticeably between 2015–16 and 2017–18, suggesting enhanced working capital use. The ratio increased significantly again between 2016–17 and 2017–18, indicating that operational effectiveness has been further enhanced and that inventory management techniques may have been enhanced. Still, the ratio remained very high in efficiency, peaking in 2017–18 and then progressively declining in the years that followed.

NET WORKING CAPITAL	
2022-23	76199.4
2021-22	65691.64
2020-21	57051.97
2019-20	54126.48
2018-19	51138.34
2017-18	53039.92
2016-17	31474
2015-16	46797

Source:(*2022-23*, n.d.)

Over time, there has been a shifting trend in a company's net working capital, which is defined as the difference between current assets and current liabilities. As current assets outpaced current liabilities, there was a noticeable increase in net working capital from 2015–16 to 2017–18, which signaled an improving financial situation. On the other hand, there were broad upward trending swings in the following years, indicating differences in liquidity and operating needs. The growth in net working capital from 2018–19 to 2022–2023 indicates improved liability management or more investment in current assets to support business operations.

COMPETITORS:

COMMON SIZE STATEMENT OF PROFIT AND LOSS ACCOUNT OF 2022-23						
PARTICULARS	**GOA SHIPYARD LIMITED**	**COCHIN SHIPYARD LIMITED**	**MDL**	**HINDUSTAN SHIPYARD LIMITED**	**GARDEN REACH SHIPYARD LIMITED**	**LNT SHIPYARD LIMITED**
Revenue from Operations:						
Turnover (Value of Production)	78.88%	91.95%	91.65 %	98.61%	92.70%	96.48%
Other Income	16.86%	8.05%	8.35%	1.39%	7.30%	3.52%

Total Income	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
EXPENSES:						
Cost of Materials Consumed	27.39%	43.63%	52.06%	48.03%	54.12%	15.44%
Employees Benefit Expenses	15.41%	13.00%	9.28%	11.12%	11.47%	7.25%
Sub-contract Expenses	13.41%	16.91%	5.33%	26.12%	11.51%	30.85%
Finance Cost	0.04%	1.36%	0.07%	1.78%	0.23%	1.86%
Depreciation & Amortisation Expenses	5.91%	2.68%	0.88%	0.33%	1.42%	1.20%
Other Expenses	6.89%	8.22%	2.57%	4.06%	3.91%	12.89%
Provisions	0.44%	0.39%	1.37%	1.20%		
Total Expenses	80.40%	86.13%	83.26%	94.12%	88.95%	91.42%
Profit for the year	14.78%	11.85%	12.56%	6.00%	8.26%	6.85%

Source:(*2022-23*, n.d.; *2022-23_English_Version*, n.d.; *Annual_Report_2022-23_(English)*, n.d.; BUILDING A BETTER WORLD INTEGRATED ANNUAL REPORT 2022-23, n.d.; COCHIN SHIPYARD LIMITED Local Globally, n.d.; Resilience. Adaptability. Excellence. Sailing Strong for 250 Years, n.d.)

Presenting each item as a proportion of total sales or income, the common-size statement of profit and loss account offers a comparative examination of rivals in the shipbuilding sector. Generally speaking, operations revenue accounts for a large amount of income, ranging from 78.88% to 98.61%. The majority of the revenue for Cochin shipyard comes from aircraft carriers, whereas other shipbuilding firm comes from ship construction where major revenue flows from With the largest proportion, Hindustan Shipyard Limited sticks out and indicates a strong commitment to its main business operations. On the other hand, the distribution of other income is not uniform, with figures falling between 1.39% and 16.86%. The smaller percentages for Garden Reach Shipyard Limited and LNT Shipyard Limited suggest a dependence on operating revenue. Building aircraft carriers is the main commercial emphasis of Cochin Shipyard. On the other hand, the primary source of revenue for companies such as Mazagon Dock Shipbuilders (MDL) and Goa Shipyard Limited comes from building different kinds of ships, however, there has been a noticeable rise in ship repair operations over time. In terms of other sources of revenue, bank deposits account for the bulk of the revenue for the majority of businesses. Conversely, Hindustan Shipyard Limited and Larsen and Toubro Shipbuilding Firm are notable for deriving a sizable amount of their additional revenue from dividend income.

Garden Reach Shipyard Limited has the greatest percentage of the cost of materials consumed (54.12%) when it comes to expenses, which is a sign of higher raw material costs. On the other hand, LNT Shipyard Limited, which has the lowest proportion (15.44%), handles this issue more effectively. Cochin Shipyard Limited has demonstrated effective labor management by having the lowest proportion of employee benefit expenditures (13.00%). However, they placed somewhat

different emphasis on provident funds, both Cochin Shipyard Limited and Garden Reach Shipyard Limited acknowledged significant commitments to their personnel, with a focus on pay, wages, and staff welfare. In the meantime, Goa Shipyard Limited's spending was noteworthy, especially when it came to solving COVID-19-related issues and making donations to several funds. The expenditures made by Hindustan Shipyard Limited demonstrated a commitment to providing basic benefits to employees, such as welfare and gratuities. By contrast, L&T Shipbuilding Firm demonstrated a holistic approach to employee benefits with its substantial investment across numerous funds. In a similar vein, Mazagon Dock Shipbuilders demonstrated its dedication to worker well-being by placing a high priority on pay, pensions, and complete staff welfare. LNT Shipyard Limited, on the other hand, outsources a lot, as seen by the fact that its proportion of subcontract expenditures is the largest (30.85%). Different companies have different profit margins; Goa Shipyard Limited has the largest margin (14.78%), which indicates better pricing or operational efficiency. Hindustan Shipyard Limited, on the other hand, trails behind with the lowest margin (6.00%), suggesting possible opportunities for cost control or income-generating enhancement.

COMMON SIZE STATEMENT OF BALANCE SHEET OF 2022-23 OF GOA SHIPYARD LIMITED AND OTHER SHIP-BUILDING FIRMS						
PARTICULARS	**GOA SHIPYARD LIMITED**	**COCHIN SHIPYARD LIMITED**	**MDL**	**HINDUSTAN SHIPYARD LIMITED**	**GARDEN REACH SHIPYARD LIMITED**	**LNT SHIPYARD LIMITED**
ASSETS:						

Non-current Assets:						
Property, Plant, and Equipment	15.81%	9.41%	2.69 %	7.89%	4.53%	4.97%
Intangible Assets	0.05%	0.10%	0.06 %	0.03%	0.09%	0.00%
Right-of-use-Assets	0.07%	1.50%	0.79 %	0.00%	0.10%	0.00%
Capital Work-in-Progress	1.80%	15.99%	0.21 %	0.90%	0.04%	1.12%
Financial Assets:						
(i) Loans	0.01%	0.05%	2.56 %	6.96%	0.00%	58.16%
(ii) Other Financial Assets	0.01%	0.01%	0.46 %		0.00%	7.11%
Other Non-current Assets	0.02%	1.71%	2.90 %	0.48%	0.00%	0.88%

Total Non-current Assets	17.77%	28.78%	9.68 %	21.04%	8.17%	0.00%
Current Assets						
Inventories	1.86%	3.72%	25.47 %	3.74%	27.08%	1.99%
Financial Assets:						
(i) Trade Receivables	2.75%	3.38%	3.47 %	23.00%	0.00%	19.67%
(ii) Cash and Cash Equivalents	8.04%	20.77%	6.47 %	8.73%	0.00%	2.26%
(iii) Bank Balances other than Cash and Cash Equivalents	52.23%	26.71%	39.54 %	6.16%	0.00%	0.46%
(iv) Loans	0.00%	0.01%	0.00 %	22.40%	0.00%	0.10%
(v) Other Financial Assets	1.39%	0.34%	0.77 %		1.52%	2.09%

Other Current Assets	11.40%	15.57%	13.62 %	14.93%	20.42%	33.13%
Total Current Assets	82.23%	71.22%	90.32 %	78.96%	91.83%	0.00%
TOTAL ASSETS	100.00%	100.00%	100.0 0%	100.00%	100.00%	100.00%
EQUITY AND LIABILITI ES						
Equity	20.34%	44.18%	14.46 %	20.36%	13.12%	41.48%
Non-current Liabilities						
Financial Liabilities:						
(i) Lease Liabilities	0.06%	4.04%	0.00 %	0.00%	0.09%	0.52%
(ii) Trade Payables	-	0.23%	0.06 %	0.00%	0.00%	1.14%

(iii) Other Financial Liabilities	0.00%	0.03%	0.00 %	36.49%	0.00%	0.01%
Provisions	0.44%	0.40%	0.00 %	18.71%	0.83%	0.63%
Other Non-current Liabilities	9.17%	0.02%	0.46 %	0.00%	0.00%	0.01%
Total Non-current Liabilities	9.86%	4.71%	1.95 %	59.70%	1.13%	10.10%
Current Liabilities						
Financial Liabilities:						
(i) Lease Liabilities	0.01%	0.50%	0.02 %	0.00%	0.00%	0.15%
(ii) Trade Payables	0.00%	0.00%	0.00 %	0.00%	0.00%	0.00%
a. total outstanding dues of micro-enterprises and small	0.12%	0.57%	0.16 %	0.00%	0.00%	0.84%

enterprises; and						
b. total outstanding dues of creditors other than micro-enterprises and small enterprises	6.61%	1.59%	15.29 %	29.66%	0.00%	45.74%
(iii) Other Financial Liabilities	1.33%	1.93%	0.51 %	0.00%	0.00%	4.59%
Other Current Liabilities	4.96%	41.42%	0.06 %	36.25%	71.51%	31.99%
Provisions	0.53%	0.40%	0.60 %	6.21%	0.83%	1.82%
Total Current Liabilities	69.80%	51.10%	83.59 %	72.59%	85.75%	88.91%
TOTAL EQUITY AND	100.00%	100.00%	100.0 0%	100.00%	100.00%	100.00%

LIABILITIES						

Source: (*2022-23*, n.d.; *2022-23_English_Version*, n.d.; *Annual_Report_2022-23_(English)*, n.d.; BUILDING A BETTER WORLD INTEGRATED ANNUAL REPORT 2022-23, n.d.; COCHIN SHIPYARD LIMITED Local Globally, n.d.; Resilience. Adaptability. Excellence. Sailing Strong for 250 Years, n.d.)

Compared to most other shipbuilding companies, Goa Shipyard Limited (GSL) owns a noticeably larger percentage of property, plant, and equipment. GSL devotes 15.81% of its resources to these assets, but the other businesses' allocations vary greatly, ranging from 2.69% (MDL) to 9.41% (Cochin Shipyard Limited). Compared to comparable companies, Cochin Shipyard Limited (CSL) has a much larger allocation to capital work-in-progress, accounting for 15.99% of total assets. Goa Shipyard Limited, in contrast, allows a very meager 1.80%, pointing to variations in the phases of project development or investment. Goa Shipyard Limited allocates a mere 0.01% of its total assets as financial assets, compared to a startlingly high 58.16% held by L&T Shipyard Limited (LNT) in loans. Compared to comparable shipbuilding companies, Goa Shipyard Limited has a much greater share of bank holdings other than cash and cash equivalents (52.23%). Compared to Cochin Shipyard Limited, this is significantly greater at 26.71%.

When compared to other companies, Garden Reach Shipyard Limited (GRSL) and L&T Shipyard Limited (LNT) have noticeably larger percentages of other current liabilities. In comparison to Goa Shipyard Limited, which allocates 4.96%, GRSL allocates 71.51% and LNT allocates 31.99%. This shows differences in short-term commitments, which may be impacted by financial or operational initiatives. Goa Shipyard Limited contributes a meager 0.07% of total assets to right-of-use assets, whereas Cochin Shipyard Limited (CSL) contributes a hefty 1.50%. This implies that different

approaches to asset usage or cost management may be reflected in different leasing methods or operational arrangements. Whereas Cochin Shipyard Limited (CSL) devotes a larger percentage of 3.72% of its total assets to inventory, Goa Shipyard Limited (GSL) devotes just 1.86%. This discrepancy can be a result of differences in the companies' supply chains' efficiency, production procedures, or inventory management strategies. Compared to Goa Shipyard Limited's 2.75%, MDL and Garden Reach Shipyard Limited (GRSL) dedicate a substantial percentage of their assets—23.00% and 19.67%, respectively to trade receivables. Hindustan Shipyard Limited (HSL) is distinguished by having a significantly greater percentage of outstanding debts from creditors other than micro- and small-sized businesses 29.66% of total liabilities than Goa Shipyard Limited (6.61%). Goa Shipyard Limited (GSL) has a very small amount of other non-current financial obligations (0.00%), but Hindustan Shipyard Limited (HSL) has a large amount of these (36.49%). Compared to Goa Shipyard Limited, which allocates 1.39% of its assets to other financial assets, Garden Reach Shipyard Limited (GRSL) allocates a considerable chunk of its assets—2.09%. This discrepancy is a result of differences in risk management strategies or investment diversification across the examined organizations. Compared to Goa Shipyard Limited, which assigns 0.01% of its liabilities to lease obligations, Cochin Shipyard Limited (CSL) assigns 0.50% of its total liabilities to lease obligations. This discrepancy shows that different businesses depend on different degrees of leasing agreements or lease finance techniques. Compared to comparable companies, Cochin Shipyard Limited (CSL) and L&T Shipyard Limited (LNT) have far smaller percentages of other current liabilities—0.06% and 31.99%, respectively—than Goa Shipyard Limited (4.96%). This implies that the examined organizations may have different working capital management strategies or short-term financial responsibilities. Compared to Goa Shipyard Limited, which devotes 0.53% of its liabilities to provisions, Garden Reach Shipyard Limited (GRSL) and L&T Shipyard Limited (LNT) devote 6.21% and 1.82%, respectively, of their liabilities to provisions. This disparity suggests that different organizations have different risk management procedures or backup plans.

RATIOS	GOA SHIP YARD LIMI TED	COC HIN SHIP YARD LIMI TED	MD L	HINDU STAN	GARDEN REACH	LNT SHIPYA RD
OPERATING CASHFLOW RATIO	25.12 %	40.05 %	3.55 %	-5.58%	15.69%	8.10%
RETURN ON ASSETS RATIO	2.52%	3.04%	3.71 %	4.40%	2.12%	4.55%
NET PROFIT MARGIN RATIO	14.78 %	11.85 %	12.5 6%	6.08%	8.26%	6.85%
CURRENT RATIO	117.81 %	139.36 %	108. 06%	108.78 %	107.08%	136.22%
CASH RATIO	86.36 %	92.91 %	55.0 4%	20.51%	46.83%	5.09%
NET CASH CONVERSION CYCLE (DAYS)	229	325	486	1244	326	936

The operating cash flow ratio shows how much of a company's current cash flows can be used to pay down debt. By dividing operational cash flow by current liabilities, it is calculated. First, let's look at the operational cash flow ratio of these companies, Cochin Shipyard Limited has a noticeably higher ratio of 40.05%, which shows that its activities generate a substantial amount of cash. This implies

sound cash flow dynamics and effective working capital management. Goa Shipyard Limited and Garden Reach Shipbuilders & Engineers Limited (GRSE) both have commendable ratios of 15.69% and 25.12%, respectively, which is a substantial lead. Nonetheless, the ratios for Mazagon Dock Shipbuilders Limited (MDL) and L&T Shipbuilding are lower, at 3.55% and 8.10%, respectively, suggesting that their operations generate relatively less cash. With a negative ratio of -5.58%, Hindustan Shipyard Limited trails far behind. This indicates insufficient cash flows from operations, which calls for improvement in operational efficiency.

In terms of return on assets (ROA) ratio, Hindustan Shipyard Limited is at the top of the field with a ratio of 4.40%, demonstrating profitable use of its assets. MDL and Cochin Shipyard Limited both have strong returns on assets (ROA) ratios of 3.71% and 3.04%, respectively. GRSE has a comparatively lower ROA ratio of 2.12% than Goa Shipyard Limited and L&T Shipbuilding, which both have moderate ROA rates of 2.52% and 4.55%, respectively.

Goa Shipyard Limited stands out when looking at the net profit margin ratio, with a high ratio of 14.78% which suggests great profitability and efficient cost management strategies. Not to mention, MDL and GRSE have excellent net profit margins of 12.56% and 8.26%, respectively. Hindustan Shipyard Limited trails after with a lesser ratio of 6.08%, while Cochin Shipyard Limited and L&T Shipbuilding have reasonable rates of 11.85% and 6.85%, respectively.

Cochin Shipyard Limited is the leader in terms of liquidity, having strong cash and current ratios of 92.91% and 139.36%, respectively. Goa Shipyard Limited has ratios of 117.81% and 86.36%, respectively, indicating that it also maintains high levels of liquidity. L&T Shipbuilding has comparatively lower levels of liquidity than GRSE and MDL, particularly when considering the cash ratio. At 20.51%, Hindustan Shipyard Limited's cash ratio is noticeably low, suggesting a possible liquidity issue.

The effectiveness of an organization's cash flow management is reflected in the net cash conversion cycle. With comparatively shorter cycles of 326 and 229 days, respectively, GRSE and Goa Shipyard

Limited demonstrate effective working capital management. Longer cycles are exhibited by MDL, Cochin Shipyard Limited, and L&T Shipbuilding, indicating possible areas for increased cash flow efficiency. The unusually long cycle of 1244 days displayed by Hindustan Shipyard Limited points to serious inefficiencies in the working capital management process.

11. RESEARCH FINDINGS AND DISCUSSION

Since the P value is greater than the significance level of 5%, the findings of the Ordinary Least Squares (OLS) regression analysis shown in Tables 1 and 3 show that the Net Cash Conversion Cycle has no discernible effect on Return on Equity and Return on Asset (ROA). The Net Cash Conversion Cycle is responsible for 41.06 percent of the variation in return on equity (ROE), according to the coefficient of determination (R2 = 41.06%). According to the coefficient of determination (R2 = 18.27%), the Net Cash Conversion Cycle is responsible for 18.27% of the variance in return on assets (ROA). Since hypothesis H1a is rejected, return on equity (ROE) is not significantly impacted by the Net Cash Conversion Cycle (NCCC). Furthermore, since hypothesis H1b is rejected, the Net Cash Conversion Cycle (NCCC) has no appreciable effect on return on asset (ROA). Since NCCC has a negative correlation with ROE and ROA and has no discernible effect on them, an increase in NCCC will result in a fall in ROE and ROA. However, while model 5's P value is smaller than the significance level of 5%, Ordinary Least Squares (OLS) regression analysis shows that the Net Cash Conversion Cycle significantly affects the Net Profit Margin. Since hypothesis H1c is accepted, the Net Cash Conversion Cycle (NCCC) has a major influence on the Net Profit Margin (NPM). The Net Cash Conversion Cycle might be responsible for 29.64 percent of the fluctuation in Net Profit Margin (NPM), according to the coefficient of determination (R2 = 29.64%). A rise in NCCC will result in a decline in the company's net profit since NCCC and NPM have a negative relationship that is considerable. Tables 2 and 4 show that Days Inventory Outstanding has a substantial influence on Return on Equity, as demonstrated by Ordinary Least Squares (OLS) regression analysis, with a P

value below the significance level of 5%. As a result, hypothesis H4a is adopted, and days inventory outstanding have a major effect on return on equity (ROE). Additionally, because the P value is below the significance limit of 10%, Days Inventory Outstanding has a substantial effect on Return on Assets. Since hypothesis H4b is adopted, Days Inventory Outstanding has a major effect on Return on Assets (ROA). Additionally, because Days Sales Outstanding's P value is below the 5% significance limit, Days Sales Outstanding significantly affects Return on Equity. As a result, hypothesis H2a is accepted, and days sales outstanding have a major effect on return on equity (ROE). Additionally, Days Sales Outstanding significantly affects Return on Assets because the P value is below the 5% significance limit. Since hypothesis H2b is adopted, Days Sales Outstanding have a major effect on Return on Assets (ROA). Days Sales Outstanding, with a P value below the significance level of 5%, significantly affects Return on Assets. Since hypothesis H2b is adopted, Days Sales Outstanding have a major effect on Return on Assets (ROA). The Net Cash Conversion Cycle is responsible for 85.86 percent of the variation in return on equity (ROE), according to Table 2's coefficient of determination (R2 = 85.86%).

Return on Equity is significantly impacted by Days Payable Outstanding since the P value is below the 10% significance level. As a result, hypothesis H3a is adopted, and Days Sales Outstanding has a major effect on Return on Equity (ROE). Return on Assets is significantly impacted by Days Payable Outstanding since the P value is below the 5% significance level. Since hypothesis H3b is adopted, Days Sales Outstanding have a major effect on Return on Assets (ROA). Table 4's coefficient of determination (R2 = 80.48%) indicates that the Net Cash Conversion Cycle is responsible for 80.48 percent of the variation in return on assets (ROA). Since ROE and ROA are significantly impacted by DIO, DSO, and DPO separately and have a negative relationship, an increase will result in a fall in ROE and ROA. The Ordinary Least Squares (OLS) regression analysis Table 6 indicates, however, that the DSO significantly affects the Net Profit Margin since the P value is above the significance level of 10%. Nevertheless, NPM is not significantly impacted by DIO or DPO. The Net Cash

Conversion Cycle accounts for 37.54 percent of the fluctuation in the Net Profit Margin (NPM), according to the coefficient of determination (R2 = 37.54%). Consequently, H4c is rejected, meaning that Days Inventory Outstanding has no significant impact on Net Profit Margin (NPM); H2c is accepted, meaning that Days Sales Outstanding has a significant impact on NPM; and H3c is rejected, meaning that Days Sales Outstanding have no significant impact on NPM. We may conclude that an increase in DSO would result in a decline in the company's net profit margin when we observe that only DSO significantly affects NPM, whereas DPO and DIO have no discernible effects on NPM. Return on equity (ROE) and return on assets (ROA) are critical performance measures that are used to assess how well a business uses equity and assets to generate profits. The Net Cash Conversion Cycle (NCCC), which influences several operational elements including financing costs, leverage, and asset turnover, has an indirect effect on these measurements. Shortening the cash conversion cycle can benefit asset turnover ratios and return on assets by accelerating the turnover of inventory and receivables. Lowering the cash conversion cycle may also reduce the need for working capital financing, which might lead to lower interest rates and higher profitability metrics like return on equity. However, the impact of NCCC on ROE and ROA may be obscured by other factors such as market volatility, operational inefficiencies, or non-operating income and expenditures unrelated to the cash conversion cycle. Moreover, the relationship between NCCC and ROE/ROA may not be linear, even if the benefits of optimizing the cash conversion cycle on financial performance may not be immediately evident. However, the influence of NCCC on NPM is more immediate and direct. NCCC has a direct impact on the cost structure and operational efficacy of sales-related operations. A speedier cash conversion cycle can result in sales being converted into cash more rapidly, which decreases the cost of borrowing and helps with accounts receivable management and inventory maintenance. Consequently, NCCC can raise the net profit margin by enabling the conversion of more revenue into profit. However, a protracted cash conversion cycle lowers the net profit margin by increasing the expenses of working capital financing, inventory maintenance, and receivables

administration. The relationship between NCCC and NPM is characterized by the clear and immediate effects of modifications to the cash conversion cycle on the profitability of each transaction the company completes.

From 2016–17 to 2017–18, Goa Shipyard Limited (GSL) had a notable increase in income, mostly due to higher contract revenue from shipbuilding and product sales. A diverse and robust revenue stream strategy was seen in the significant rise in revenue from various operational sources. Nonetheless, there have been variations in revenue in the last several years, with slight drops in 2018–19 and 2020–21, albeit somewhat compensated by income from other operating channels. Notably, GSL's revenue from government and commercial contracts, as well as its export operations, has been trending higher, indicating promising market prospects. GSL has had swings in profitability throughout the years, most notably a decline in 2020–21 during the COVID-19 phase brought on by rising component costs. However, there have been indications of an improvement in overall profitability, especially in 2020–21, which might be attributed to actions to reduce costs or to increase income creation. GSL has had difficulties with expenditure control, especially as a result of notable growth over time in areas like subcontract costs, employee benefit costs, and other operating expenses. The increasing costs observed in several domains such as direct expenses, financing charges, and provisions point to the need for changing operational dynamics and the use of risk management techniques. The increasing costs observed in several domains such as direct expenses, financing charges, and provisions point to the need for changing operational dynamics and the use of risk management techniques. GSL has seen a decrease in the proportion of property, plant, and equipment (PPE) concerning asset allocation and liquidity over time, indicating a change in investment priorities or improved asset use. Significant progress has been made in managing liquidity, as seen by the significant rise in current assets, especially bank balances and cash equivalents. GSL has experienced variations in liability categories, including significant increases in

other current obligations and declines in provisions over time, in the management of liabilities and risk. The rise in net working capital between 2018–19 and 2022–2023 suggests better management of liabilities or more expenditure on current assets to support operations. GSL's financial stability, operational effectiveness, and liquidity management have all been improved by the analysis of financial measures such as the operating cash flow ratio, return on assets (ROA) ratio, net profit margin ratio, current ratio, cash ratio, and working capital turnover ratio. These ratios' variations over time highlight GSL's capacity to adjust to shifting market conditions and its initiatives to maintain profitability and financial stability. The study's conclusions give readers a thorough picture of Goa Shipyard Limited's (GSL) trajectory throughout time and demonstrate the company's skill at overcoming obstacles and seizing chances in the shipbuilding sector. GSL has been resilient throughout its existence, especially in times of economic turbulence like the COVID-19 epidemic. GSL has been able to sustain its operations and retain stability via the use of excellent cost-control strategies and diversification of income streams. GSL has demonstrated its proactive approach to sustained development and profitability via strategic changes in income streams, expenditure management, and asset allocation. These changes demonstrate the company's dedication to maximizing its competitive edge and adjusting to changing market conditions. Although sales and profitability have fluctuated, GSL's overall financial stability has been strengthened by its constant commitment to improving operational efficiency and managing liquidity. This dedication guarantees GSL's durability and sets it up for long-term success. Stakeholders may learn a lot about GSL's financial performance, risk profile, and strategy orientation by examining its financial statistics and net working capital patterns. These analytics help stakeholders make informed decisions and allocate resources, which in turn helps GSL stay competitive and develop. Sustained investigation and observation of GSL's financial indicators are necessary to assess its competitive standing, pinpoint opportunities for enhancement, and ensure its sustained prosperity in the ever-changing shipbuilding sector.

Through the analysis of crucial financial indicators including revenue distribution, profitability, asset allocation, liquidity, and operational effectiveness, interested parties may arrive at well-informed conclusions and pinpoint opportunities for enhancement. All firms, according to the report, largely depend on income from operations, but they have different strategic priorities and approaches to revenue diversification. Their success is attributed to Goa Shipyard Limited's effective cost control and Cochin Shipyard Limited's expertise in aircraft carriers. On the other hand, Hindustan Shipyard Limited encounters difficulties in producing adequate earnings and preserving liquidity. Moreover, disparities in the firms' liability and asset allocations underscore different financing and investing philosophies. While L&T Shipyard Limited's reliance on loans may raise questions about the sustainability of its debt, Cochin Shipyard Limited's substantial investment in capital work-in-progress demonstrates its dedication to growing its operating capabilities. Liquidity ratios also shed light on a company's capacity to satisfy immediate financial commitments. While Hindustan Shipyard Limited's low cash ratio raises concerns about its capacity to fund urgent costs, Cochin Shipyard Limited's good liquidity position highlights its financial stability.

12. CONCLUSION

An examination of the effects of the cash conversion cycle (CCC) provides important new information on the operational effectiveness and financial health of shipbuilding firms. The CCC has a significant impact on the net profit margin (NPM), but the ordinary least squares (OLS) regression analysis indicates that it has no appreciable effect on return on equity (ROE) or return on assets (ROA). According to the results, a shorter CCC can increase profitability by speeding up the turnover of receivables and inventory, which raises ROE and ROA and improves asset turnover ratios. Furthermore, a quicker cash conversion cycle can lessen the requirement for working capital funding, which will save interest costs and improve profitability indicators. On the other hand, a protracted CCC might result in higher expenses for working capital financing, inventory upkeep,

and receivables management, which would hurt profitability. This emphasizes how crucial improved operational efficiency and cash flow management are to raising profitability and financial performance. Ultimately, the CCC's direct impact on the NPM emphasizes how important it is for boosting profitability, even though its indirect effects on ROE and ROA may be altered by several variables.

The study offers a thorough examination of the shipbuilding sector with a particular emphasis on significant businesses such as Goa Shipyard Limited (GSL) and others. To understand the dynamics of the sector, it looks at many financial indicators, such as revenue distribution, profitability, asset allocation, liquidity, and operational effectiveness. The tenacity and adaptability of GSL in overcoming obstacles is one important conclusion; this was especially true during economic downturns like the COVID-19 epidemic. GSL is a role model for consistent development and profitability in the industry because of its dedication to cost containment, revenue diversification, and operational efficiency. The report also outlines the strategic goals and methods used by various shipbuilding companies. The difficulties Hindustan Shipyard Limited (HSL) has in producing sufficient profits and preserving liquidity highlight the need for strategic adaptability in a market that is highly competitive. Different finance and investment philosophies are shown by analyzing the distributions of assets and liabilities among the firms. While some businesses depend largely on loans, others place a higher priority on building their operating capacities or keeping substantial cash reserves. Due to its steady financial standing and efficient risk control techniques, GSL is well-positioned for long-term prosperity. Liquidity ratios can shed light on each company's capacity to fulfill short-term financial obligations. HSL's weaker liquidity position contrasts with GSL's and CSL's strong ones.

13. MANAGERIAL IMPLICATIONS

A shipbuilding company such as Goa Shipyard Limited must acquire and use a variety of materials and components when required instead of maintaining a general inventory which increases the holding costs as shipbuilding is a lengthy procedure. Effective inventory control guarantees that the company keeps the right amount of goods on hand to satisfy demand without going overboard and needlessly tying up cash. Goa Shipyard Limited should decrease inventory holding costs by implementing JIT as they would rarely run out of stock and maintain stocks of only small parts of extremely rare parts this prevents stockouts by optimizing inventory procedures, cutting lead times in procurement, and also implementing RFID tracking system for proper locations at different warehouses tracked through ERP system, and improving coordination between the procurement, production, and storage divisions this is due to the inefficient lack of technology being used in the firm the outdated software create a problem in working of the firm. Setting up explicit payment conditions with clients following up during the due dates, sending out invoices on time, and actively pursuing unpaid receivables to shorten the average collection time are all components of effective receivables management. The company must also efficiently manage its payables. This issue is seen because most of the customers are government due to which payments are received in a delayed manner. However, through proper paperwork and contracts sign and also if there are delays, they have to pay an interest rate to the firm as a penalty. To achieve prompt settlement of commitments without incurring penalties, this entails negotiating attractive payment arrangements with suppliers and scheduling payments to take advantage of discounts for early payment. To improve liquidity and lower financing costs, the company can hold funds for extended periods by extending payment terms where feasible without endangering supplier relationships. Regular inventory audits can help you find outmoded or slow-moving material and take proactive steps to reduce or eliminate holding costs. The company uses outdated ERP software, such as Baan, when they could be investing in technology for accounting and financial management to increase productivity and streamline

operations. Improving decision-making skills and automating manual procedures, may involve putting in place electronic payment platforms, financial management software, or enterprise resource planning (ERP) systems.

Research indicates that about sixteen percent of Goa Shipyard's income comes from outside sources, namely interest from bank investments, particularly fixed deposits (FDs). However, since FD returns are often lower than those of alternative investment outlets, the company's overall financial performance may suffer from this reliance on FDs. Considering the current inflationary tendencies, Goa Shipyard might be better off using debt mutual funds (DMFs). DMFs provide a range of returns, from 7.4% to 8.4%, depending on the investment's risk profile. While FDs and DMFs are both fully taxable, DMFs are a better investment alternative since they have the potential to provide larger returns. Furthermore, the company's capacity to maximize profitability is limited by its commitment to a conservative working capital management philosophy. Making the shift to a more moderate working capital policy may present chances to improve financial performance and profitability. Essentially, the company's goal of maximizing profits while minimizing risk is aligned with the use of DMFs over standard FDs, especially in light of increasing inflationary pressures.

In the competitive landscape of shipbuilding, companies employ distinct customer attraction strategies to secure contracts and drive profitability. Mazagon Dock Shipbuilders Limited (MDL) adopts a cost-plus-profit strategy, adding a predetermined margin of 7.5% to the project's cost. Conversely, Goa Shipyard Limited takes a different approach by providing a final price to the customer and subsequently ensuring that the cost of construction falls within that range. However, Goa Shipyard Limited has encountered challenges, occasionally experiencing financial losses across various projects. Recognizing the need for a more sustainable approach, aligning with their majority shareholder MDL's strategy could prove advantageous. By adopting a cost-plus-profit model, Goa

Shipyard Limited can establish clearer pricing structures, mitigate financial risks, and ensure profitability over the long term. While this strategy may initially entail adjustments, aligning with MDL's approach could ultimately enhance Goa Shipyard Limited's financial stability and competitiveness in the shipbuilding market.

14. CHAPTER 3: TASK HANDLED

I started my internship at Goa Shipyard Limited and was first put in charge of the Payroll Department, which is part of the Finance Department. The typical workday was from 9 a.m. until 4:45 p.m. But as the days went by, I was responsible for more than just payroll. I discovered that I was asked to help with several other financial parts, including the Cash, GST, and Subcontract portions. Even while I was still primarily responsible for payroll-related responsibilities, I actively looked for ways to learn from and get insight from the broader financial department. This exposure enhanced my learning experience throughout the internship by enabling me to comprehend financial processes and procedures on a larger scale outside of my assigned region.

1. Conducted verification of:

- **Imprest bills**

During the verification of imprest bills, meticulous scrutiny was conducted on invoices about specific days and months. A comprehensive Excel sheet was provided, requiring the inclusion of the GST number of the firm and Goa Shipyard Limited, alongside essential details such as invoice number, amount, and GST component. Additionally, scrutiny extended to ensuring the presence of official stamps and signatures of CISF officials for items procured for official purposes. For services rendered, thorough checks were performed on the gate passes of personnel.

- **Travel allowance recruitment bills**

  Verification procedures were undertaken for travel allowance recruitment bills, focusing on reimbursements for individuals traveling from outside the state for interviews. Examination centered on verifying compliance with prescribed criteria for train travel expenses and the accuracy of bank account details, including account number and IFSC code. Furthermore, attention was given to confirming the submission of necessary certificates and documentation alongside the bill submission. The following are the tasks performed by me in the finance department.

- **Sundry bills**

  Sundry bills encompass miscellaneous expenses reimbursed to employees for expenditures incurred. This verification process entailed ensuring the attachment of Xerox copies of printed bills, considering the original printed bills are subject to expiration after a specified duration. Attention was directed towards verifying the accuracy of the total amount stated on each bill, thereby ensuring correctness in the claimed amounts and rectifying any miscalculations made by employees. Additionally, for product-related expenses, scrutiny included confirming the presence of a stamp and signature by CISF officials.

  Overall Assuring the validity and correctness of several bill kinds, such as imprest bills, travel allowance bills, and sundry bills, is the responsibility of this task. It necessitates paying close attention to details and following policies and guidelines.

2. **Entered data into Excel regarding TY duty of officials' movement outside the state and country**

The task involved meticulous data entry into Excel spreadsheets concerning the travel duties of officials departing outside their state or country. This temporary responsibility demanded proficient Excel skills and a keen eye for detail to ensure accuracy in information input. The entry process encompassed maintaining both hard and soft copies of the data, incorporating details such as Dearness Allowance, GSL-provided ticket prices (if applicable), hotel allowances, and other incurred expenses. Payments were disbursed to employees based on approved levels and limits for such duties.

3. **Calculated Imprest GST R2B and conducted checks for duplicate bills**

The task involved calculating Imprest GST R2B, a form of GST payment where vendors upload their GST received, followed by receiving master data from an online platform. Subsequently, this master sheet needed to be meticulously compared with the GSL GSTR2B sheet to identify variances in bills. Furthermore, thorough checks were conducted to ensure no double payments were made to vendors for the same bill, thereby preventing any instances of duplicate payments. This process is integral to ensuring compliance with tax laws and regulations. A profound understanding of GST legislation, coupled with a keen eye for detail, was essential to detect and rectify any discrepancies effectively.

4. **Updated Provident Fund KYC details of employees**

Updating employee Know Your Customer (KYC) information about their Provident Fund (PF) accounts is the responsibility of this assignment. It necessitates adhering to legal and regulatory regulations, and processing sensitive employee information with accuracy and confidentially.

Updating your Employees' Provident Fund (EPF) KYC online is a straightforward process. To begin, visit the official EPFO website and navigate to the 'Services' tab, selecting 'For Employees'. Then, log in to your UAN Member Portal using your Universal Account Number (UAN) and

password. Once logged in, access the KYC Update Section by finding the 'Manage' tab and selecting 'KYC'. Here, you can update various documents such as PAN, Aadhaar, passport, bank account, etc. Enter the relevant details and save them. The updated KYC details will be sent to your employer for approval. You can check the status of your KYC update by revisiting the 'Manage' tab and selecting 'KYC'. It's crucial to ensure that the details you enter match exactly with your documents and keep scanned copies ready in case of upload requirements. Regularly monitoring the status of your KYC update ensures timely approval by your employer, facilitating seamless transactions and faster claim settlements. This process was undertaken by GSL employees to fulfill the KYC filing requirements.

5. **Assisted employees in applying for the withdrawal of Provident Fund money**

Filling out the EPF withdrawal form, particularly EPF Form 19, involves essential steps to ensure a smooth process for employees, such as those at GSL. Initially, employees need to access the EPFO website, where they login using their UAN, password, and captcha. Then, under the 'Online Services Tab,' they select the option "Claim (Form 31, Form 19, Form 10C and Form 10D)." Upon entering their bank account number linked with their PF account and verifying it, employees encounter a 'Certificate of Undertaking' pop-up, where they confirm their selection to proceed. They then choose 'Only PF Withdrawal (Form – 19)' from the drop-down menu and provide their complete permanent address. After ticking off the disclaimer and verifying their Aadhaar via OTP, employees submit their applications and receive a reference number for successful completion. It's crucial to accurately fill in all required information, verify Aadhaar via OTP, and ensure the provided bank account details match those linked with the PF account to avoid processing delays. This task helped me support and advise employees who want to take money out of their PF accounts is part of this duty. To properly support employees, one has to have strong communication skills and awareness of PF withdrawal processes.

6. **Entered data on the BaaN ERP system regarding the Travel of employees and Festival advance**

   The data entry process involved recording information of employees traveling for official purposes across states, as well as employees undergoing festival advance recovery through their salary. Initially, a ledger code was assigned, followed by the appearance of the respective vendor's name. Subsequently, a new entry was generated, detailing the employee number, amount, reference code, and destination of travel, and saved accordingly. In instances of journal vouchers, the employee number was linked to their advance amount for accurate tracking and recording of festival advance recoveries.

7. **Carried out salary segregation of payslips department-wise, and distributed them to employees of respective departments**

   This Task entails creating pay slips for staff, organizing them by department, and delivering them to the appropriate staff members. To guarantee employee satisfaction, timely delivery, organized segregation, and efficient payroll data processing are necessary.

8. **Recorded tally entries for employees' money transfers to the NPS fund and entered data of the monthly amounts withheld by Goa Shipyard Limited which was received**

   This Task entails keeping track of the monthly amounts deducted by the business and precisely documenting financial transactions about workers' contributions to the National Pension System (NPS) fund. It calls for expertise in accounting software, meticulousness, and adherence to financial rules. During this I had a problem with data loss due to a technical glitch computer froze so it showed me the importance of taking a backup of the data entered every day as systems can break at any time and create a problem.

9. Data Entry and Approval Process for Overtime Hours Calculation in Star ERP

As part of my responsibilities, I managed the entry of overtime hours data into the Star ERP system. This involved cross-referencing the recorded extra hours with software data to ensure accuracy. A crucial aspect of this task was the approval process, where overtime hours were scrutinized closely. Any deviation beyond the established buffer of (+/-) 10 minutes was grounds for non-approval. Notably, it was imperative to maintain fairness in overtime compensation, as workers earned more on overtime than supervisors and officers. This meticulous approach ensured adherence to company policies and equitable treatment of all employees.

10. Creation of a Financial model for their Sundry Expenses

A financial model was created to simplify the administration of miscellaneous costs when it was discovered that the present approach caused problems with data referencing as subcontract workers were using different Excel formats. The recently created model enforces particular formulae and forms to guarantee uniformity and convenience of use in the future. The model facilitates precise and efficient record-keeping by allowing users to input a corresponding number to get the employee's name and the amount, thanks to the utilization of VLOOKUP and SUM formulas.

15. CHAPTER 4: LEARNINGS

Leave Travel Allowance (LTA)

This essential perk is designed to help employees feel refreshed by allowing them to take time off. Different sums are given to employees according to their rank in the company. The yearly allowance for those in grades W1 through W4 is ₹15,000, and for those in grades W5 through W10, it is ₹19,800. W11 through W13 grades receive a greater annual stipend of ₹27,000. In addition, as an extra perk, superiors get a portion of their compensation, just like officers do. The procedure starts when an

employee, who is usually a worker, applies for a Leave Travel Allowance. The application is then examined in the time office to confirm the employee's grade, attendance history, length of service, and anticipated retirement date. After passing through the time office division, an essential component of the human resources department, the application finally reaches the payroll department, which is in charge of paying out the allowance that has been authorized. Getting involved with the Leave Travel Allowance procedure gave me excellent real-world experience. In contrast to what is often believed, the complexities of reviewing applications, making sure that organizational regulations are followed, and working with different divisions brought to light how dynamic payroll operations are. Procedure-streamlining innovations, including digitizing record-keeping or improving payment processes, were crucial in cutting down on time and increasing productivity. I gained an understanding of my skills from this experience, especially in handling complex duties and adjusting to changing demands at work. Comprehending the demands of my supervisor concerning meticulousness, punctuality, and proactive issue resolution emphasized the significance of harmonizing individual aptitudes with occupational obligations.

Leave Encashment

This feature enables workers to profit from the days of leave they have accumulated. For every eleven completed working days, each employee accrues one day of leave. The amount of accrued leave must be more than 10 days but not more than 30 days to be eligible for encashment. The employee's status affects how the encashment amount is calculated. It consists of the dearness allowance in addition to the base wage for regular employees. However, after retirement, it comes with a supplementary part known as personal pay, which is the amount over a particular grade. This happens when a worker gets promoted to a higher grade but has their base pay cut, which results in personal pay. Even if the employee loses out since their base pay is reduced, which impacts perks like Provident Fund, the encashment process follows a set procedure. When employees make requests for encashment, their

reporting officer reviews them, and higher authorities then approve them. Information like grade, leave type, balance, and attendance are confirmed by the time office department. Ultimately, the proposal is approved by HR, pending the head's approval. Subject to quarterly revisions, the dearness allowance is now 43.7%. Interacting with the leave encashment procedure exposed a severe discrepancy between conceptual knowledge and real-world implementation. Although theory describes the processes required in the process, real experience sheds light on the subtle intricacies of determining an employee's eligibility for leave, obtaining permissions from higher up the hierarchy, and balancing their unique situation with company regulations. In this area, innovations have frequently focused on creating efficient approval processes and putting in place mechanisms to guarantee precise leave balance computations. This experience led to the discovery of personal strengths, especially in the areas of stakeholder management, communication, and attention to detail.

Imprest Account

The Imprest account functions as a designated fund under the management of particular designations inside GSL, most often the organization itself. It is an advance of funds given for a specific reason, usually project-related costs. The monthly disbursement amount varies between ₹10,000 and ₹50,000, depending on the project's urgency and the individual's classification. To enable the flow of money for the following period, the account holder must provide all pertinent invoices and receipts at the end of each month, demonstrating the importance of accountability. Any misappropriation of funds for non-official uses is reimbursed out of the employee's pay. The process starts when someone requests an Imprest account, and then GSL sends out a letter approving the account. The person then creates a specified bank account, which grants operational access to disburse and reconcile funds. Accountability and transparency are guaranteed by the passbook and bills being turned in to GSL each month. When a project is over, GSL sends out a closing letter to the account holder, asking them to close the bank account and return any money that is left to GSL. The Imprest holder is subject to

yearly and bank fees, whereas GSL receives interest on the account amount. Handling the Imprest account procedure offered a concrete connection between abstract concepts and practical implementation. The implementation of theoretical ideas about financial accountability and money disbursement exposed the complexities of project finance management within organizational bounds. Advances in this field have frequently focused on maximizing the use of funds by employing careful tracking of expenses and strategic planning. Through this encounter, new perspectives on one's skills surfaced, including proficiency with money management, meticulousness, and following protocol. Accuracy, honesty, and promptness in reporting are critical, and reporting officers' expectations must be understood.

Gratuity Calculation

An important financial perk offered by companies to staff members who have worked for at least five years is a gratuity. It functions as a financial assistance plan and is a crucial component of an employee's compensation package. The retirement form is usually sent by the HR department to start the gratuity procedure. Then, the finance division is in charge of reviewing relevant information, including the length of service, which is determined by deducting the joining date from the retirement date. A one-day grace period is also usually added when doing calculations. Efficient data administration, including updates on employee status, and changes like retirement, death, resignation, or termination, is made easier with the use of Excel templates that have established forms. A formula is used to determine the gratuity amount, which is [(base wage + dearness allowance) * Number of years of service * 15] divided by 26. The computed gratuity is carried over to the following year if it is more than six months. Nonetheless, gratuity payouts are subject to a ceiling of ₹20,00,000. Additionally, if an employee is judged to be an underperformer, their raise is suspended for two years, after which time it will revert to a set rate of 3% annually. While actual exposure revealed the challenges of effectively applying formulas, conforming to legal constraints, and validating service

time, theoretical comprehension clarified the procedural stages and formulaic computations. In this field, innovations have frequently focused on improving computation accuracy, streamlining data management systems, and guaranteeing legal compliance. Through this encounter, new perspectives on one's skills surfaced, especially in the areas of analytical thinking, meticulous attention to detail, and regulatory compliance.

OPEX (Out-of-Pocket Expense)

The compensation that law enforcement officials receive for working overtime is referred to as OPEX. Officers are paid ₹150 per hour for a maximum of 42 hours worked throughout the workday. If they work on holidays, they are paid an extra ₹900. This refund is similar to phone reimbursements and is tax-free. The SBI business portal is used for payment processing. To distribute payments, a text file with officer data is supplied. Streamlining payment procedures, guaranteeing accuracy in reimbursement computations, and maximizing tax advantages for officers were frequently the focus of innovations in this field. Personal skills were honed via this experience, especially in data administration, financial analysis, and regulatory compliance. Comprehending the demands of reporting officers highlighted the need for promptness, precision, and openness in reimbursement processes.

Workshop on ESIC

The Workshop demonstrated how the ESI Scheme is an essential social insurance program designed to protect workers against a range of unforeseen circumstances, including illness, pregnancy, disability, and death from a work-related injury. Additionally, it provides insured individuals and their families with medical treatment. A variety of benefits are available to employees who are covered by the ESI Scheme, including medical, maternity, disability, dependents, and sickness benefits. Employees seldom knew that they may claim funeral expenditures up to Rs. 15,000. It was also

observed that most employees did not do so. In addition, various benefits are offered, including funeral costs, vocational rehabilitation funding, and unemployment compensation. The session enabled a more thorough comprehension of the advantages and complexities of the ESI Scheme. Through an examination of the data's contributing circumstances, length, and benefit scale, participants were able to get a better understanding of the scheme's functioning and the assistance it provides to staff members in times of need. Participants discovered that to get benefits, they must complete certain requirements relating to work and contribute to the fund for a predetermined period. Employees must comprehend these terms to take advantage of the benefits offered by the program.

16. CHAPTER 5: CHALLENGES

- **Data Collection in a Defense Public Sector Undertaking**

  Due to the organization's involvement in the defense industry, data collection proved to be quite difficult. Since this industry often operates under strict security guidelines, gathering the required data was challenging.

- **Limitations on cell phones and computers**

  The inability of cell phones and computers on the organization's property presented me with yet another challenge. This limitation made it more difficult for me to finish projects for my internship report and impeded my advancement. Additionally, the company's stringent policy prohibiting smartphones—except for senior management—made it difficult to upload documentation, such as pictures.

- **Limited Departmental Mobility**

  It was difficult to move between the organization's departments, especially while trying to enter the yard area. A unique mobility pass was needed for this, allowing entry into the yard area. Getting this pass made it more difficult to provide a thorough operational examination of the business.

- **Tally ERP Data Loss**

  During my internship at Goa Shipyard Limited, I was assigned the task of entering data into the Tally ERP software. However, an unexpected technical glitch caused the computer to freeze, resulting in the loss of the entered data. Consequently, I had to re-enter the entire set of data into the system to ensure accuracy and completeness. This experience not only tested my patience but also highlighted the importance of diligence and resilience in overcoming unforeseen challenges in a professional environment.

- **Employee KYC Filing**

  One of the major issues I faced during my internship was the PF KYC filing procedure for staff members. Even with my best efforts, progress was often hampered by technological problems. These disruptions, which were frequently brought on by website or network issues, left workers disgruntled and with unfinished work. The fact that they didn't know what the underlying technical issues were added to their anger. Furthermore, the issue was made worse by the company's policy banning phones. Document uploading was required for KYC processes, and because the company's printers couldn't scan passbooks, this was an impossible operation without a smartphone. As a result, workers encountered difficulties finishing their KYC files, which caused discontent and interrupted production. To bridge the gap between technical limitations and employee expectations, addressing these difficulties requires creative solutions and excellent communication.

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18. APPENDIX I: SAMPLES OF THE WORK DONE

Goa Shipyard Limited strictly prohibits the inclusion of any sample of work in the report due to its confidential nature.

19. APPENDIX II: PHOTOS WHILE YOU ARE AT WORK

As mentioned in the offer letter, the use of phones and laptops is strictly prohibited within the firm, even for employees, owing to security reasons.