Report On

Supply Collaboration with Accounting Management Systems in Toa Corporation, Bangladesh Office

By

ASHRAFI SULTANA SHARNA
19382011

An internship report submitted to the Procurement & Supply Management in partial fulfillment of the requirements for the degree of
Masters in Procurement & Supply Management

Procurement & Supply Management
BRAC University
April 2022

Declaration

It is hereby declared that

1. The internship report submitted is my own original work while completing degree at Brac University.
2. The report does not contain material previously published or written by a third party, except where this is appropriately cited through full and accurate referencing.
3. The report does not contain material which has been accepted, or submitted, for any other degree or diploma at a university or other institution.
4. I have acknowledged all main sources of help.

Student's Full Name & Signature:

Ashrafi Sultana Sharna
19382011

Supervisor's Full Name & Signature:

Md. Zikrul Islam
Faculty, Procurement & Supply Management
BRAC Institute of Governance & Development

Letter of Transmittal

Md. Zikrul Islam

Faculty,
Department of Procurement & Supply Management
BRAC University
66 Mohakhali, Dhaka-1212

Subject: Report submission

Dear Sir / Madam,

This is my pleasure to submit my internship report regarding the masters in Procurement & Supply Management, which I was appointed under your supervision.

I have attempted my best to finish the report with the essential data and recommended proposition in a significant compact and comprehensive manner as possible.

I trust that the report will meet the desires.

Sincerely yours,

____

Ashrafi Sultana Sharna
19382011
BRAC Business School
BRAC University
Date: April 10, 2022

Non-Disclosure Agreement

This agreement is made and entered into by and between Toa Corporation, Bangladesh Office, and the undersigned student at BRAC University.

Acknowledgement

The author is highly excited to give special thanks to the mentor and the report committee for their continued support and encouragement. I heartly appreciate for the assiduous studying and learning connections arranged by the entire BRAC team.

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Executive Summary

The purpose of this report is to explore Toa Corporation’s accounting management systems to better understand the improvement in the collaborative relationships between accounting and supply chain. The contemporary management of Toa Corporation has ended the organization centric view of corporate competition and the current finance and accounting system model to make the previous unimportant in many instances. Today’s culture of business is highly influenced by strife between supply chain partners than enterprise centric policies and decisions. In this consequence, these integrative systems connect supply chain partners in a manner that is closely coupled than consolidated entities. Current technology has accelerated new business structure to appear and grabbing the market, but the accounting management systems has failed to maintain its compatibility and cognizance as this new business forms has arisen. The report reflects how Toa Corporation has changed the accounting management systems by using electronic data interchange and thus achieved the collaboration with supply chain management.

Keywords: Electronic Data Interchange, Economic Zone Authority, Joint Venture, Outsourcing, Consultancy, Civil works & constructions, Straight 2 Bank.

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List of Acronyms

OHSAS	Occupational Health and Safety Assessment Series
ISO	International Organization for Standardization
ESG	Environment, Society & Government
SDG	Sustainable Development Goal
KPI	Key Performance Index
R&D	Research & Development
BEZA	Bangladesh Economic Zone Authority
OTJ	Obayashi Corporation, Toa Corporation & JFE Steel Corporation
ODA	Official Development Assistance
GOB	Government of Bangladesh
JICA	Japan International Cooperation Agency
EDI	Electronic Data Interchange
FDIPP	Foreign Direct Investment Promotion Project
BR	Bangladesh Railway
IGHQ	International General Head Quarter
MCDM	Multi-Criteria Decision-Making
JVA	Joint Venture Agreement
VAT	Value Added Tax

VDS	VAT Deducted at Source
S2B	Straight 2 Bank
BHL	Bangladesh Honda (Pvt.) Limited
ASN	Advanced Shipment Notification
EFT	Electronic Fund Transfer

Chapter 1 Introduction

1.1 Toa Corporation

Since its establishment in 1908, TOA CORPORATION has been engaged in dredging and reclamation for the construction of harbors and their related facilities, design and execution of coastline buildings, construction of airports, marine leisure facilities, warehouses for distribution, factories, harbor, tunnel, dam, railroad, and power plants.

With its state-of-the-art technology, Toa has completed many projects of urban development, commercial buildings, hotels, medical, educational, cultural, and residential facilities, and has gained a high reputation for each and every design, execution of construction and maintenance.

1.2 Overseas Countries Operation

TOA CORPORATION though founded in 1908 in Japan, it started its actual construction journey in 1912 by the establishment work of Tsurumi Umetate Kumiai (Tsurumi Reclamation Association). In 1920 it established Tokyo Bay Marine Works Co., Ltd. In 1928 they Completed Tsurumi-Kawasaki Coastal Industrial Areas. In 1949, they listed themselves stocks on the Tokyo Stock Exchange. In 1962, they built Japan's largest cutter suction dredger, Asia Maru with diesel engine. In 1963, TOA CORPORATION opened International Division and Singapore Office. In 1967, they opened Indonesia Office. In 1995, they opened Philippine Office and in 1996 the Vietnam office as well. In 2006 they opened UAE Office as well as established the Corporate Compliance Rules. They opened Sri Lanka office in 2007. In 2013, Kuwait office has been launched by Toa Corporation. In 2020, it opened Bangladesh Office.

With the establishment of the Overseas Department (now the International Division) in 1963, the Company began looking to expand outside Japan, particularly into Singapore. In 1976, Toa Corporation was awarded a contract worth ¥29.9 billion for construction of Changi

International Airport. At the time, it was the largest overseas project ever undertaken by a Japanese construction company.

In 1972, Toa Corporation set its sights on the Middle East and in 1976, the Company had won a major contract for construction of the industrial port facility at Khor Al-Zubair in Iraq. At ¥33.4 billion, this was the biggest project ever undertaken by the Company. However, the Company was later forced to withdraw from the region following the Iranian revolution and the outbreak of the Iran-Iraq war in September 1980.

1.3 International Certification

In 1999 they got International Division certified under ISO9001 & introduced the executive officer system. In 2002 their operation alliance started with Ando Corporation Co., Ltd. and International Division is certified under ISO14001. In 2003, TOA CORPORATION achieved certification under OHSAS18001 (Occupational Health and Safety Assessment Series) and later got ISO 45001.

1.4 Management of Toa Corporation

Organizations need to place great importance on selecting and retaining quality business partners to ensure stability (Khazanchi and Sutton 2001; Greiger 2003). In the selection process and to integrate between business partners it has become very essential because there is potential high risk in a supply chain for the crucial positioning of them. Because the enterprises implement a variety of strategies for reducing business cycle time including vendor managed inventory (VMI), just-in-time (JIT) manufacturing, and quick response retailing (QR). It is to be noted that enterprise can accept and adopt technologies that will support other homogenized business processes and highly responsive communication with information systems of all other consort across the supply chain. This process can be time consuming, and the expense and complexity of making such linkages will frequently secure business partner relationships and provide strong motivation to maintain stability among the various members in the supply chain (Grover et al. 2002; Shin and Leem 2002)

Toa Construction Corporation is based on the corporate philosophy of "Aiming to develop the company's business with high technology and fulfilling social responsibility through sound management (company motto)", "Supporting society, connecting people and the world, and creating the future." Toa Corporation will promote ESG management based on our long-term vision of “Create (TOA2030)”.

To connect the trading partners with the business by automation, organization depends on manufacturer to supplier and also the tier supplier to minimize the production scheduling and excess inventories in hand. It is very obvious in business that while any organization enters into new environment to maximize efficiencies, they face significant business risks associated with the increased dependence on business partners to shorten cycle times and deliver materials and supplies on increasingly shorter notice. And if the enterprise is unrecognized then the risk not only increases from the tightly coupled inter relationship but also affects the value chain of the total supply chain management.

In Bangladesh office, Toa Corporation usually execute different projects bidding procedure. Thus, the accounting management systems here projects basis. All the expenditure is manipulated and executed by projects. Formerly Toa corporation was enterprise centric business strategy follower. But the management has decided to change the strategy because of rapid growth and broader implementation of Business to Business (B2B) e-commerce establishment. Electronic Data Interchange (EDI) systems has been established for the better & improved management for the office financial management of Toa Corporation which is discussed in the 4-th chapter of this report.

Currently the idea of collaborative commerce (C-commerce) is the talked of the topics in the business area. It is the EDI that has made the transaction very smooth and easy between the buyer and supplier. Not only that, but also a healthy collaborative relationship can be built behind the execution of transactions. The relationships entail knowledge sharing, knowledge creation, and knowledge usage as the partners jointly work toward performing various activities including research, design, production, marketing, and logistics (Hollsopple and Singh, 2000). There are different levels of integration in C-Commerce: at the lowest level companies are exchanging data via traditional means such as fax, phone, and mail; and one level higher they make use of EDI or email for point-to-point data interchange (Chen et al., 2007).

1.5 KPI plan of Toa Corporation

Accounting is the process of recording, analyzing, and reporting financial information of a business which can be used by a variety of stakeholders including regulators, investors, and management [Internet]. In the administration and accounts department of Bangladesh office, Toa Corporation has set has set key performance indicators (KPIs) and achievement targets for initiatives. Toa Corporation Bangladesh Office is a cost center. Considering this matter, the KPI is dependent on accounts payable departments. To maximize the performance of accounting management systems Toa corporation undertook-

Sl.	Particulars	No of days to process	Days need of Payment	Required Manpower	Authority Approval
01	Sourcing	07-08		05	Yes
01	Quotation collection	05-06		05/06	
02	Cash Withdraw	01		02	Yes
03	Check Processing	01		02	
04	Petty cash voucher payables	03		03	
05	Invoice processing by Toa	05-06		03	

06	Invoice payables by Bank	03	Do	03	Yes
07	Work order processing	03		02	
08	Supplies check, receive, store	03		03	Yes (Quality Assurance)

Table 1.1: Accounting Management KPI for Toa Corporation (Payable)

Since Toa Corporation is related to construction works, thus the payables are more critical than receivables. Thus, to increase the KPI of payment payables, the aim is to shorten the durability the payments to the subcontractors and the other sellers. Table 1.2 shows that the receivables from the buyer for Toa Corporation and from borrowings from bank take a long time to proceed the full payments. Actually, most of the buyer is Bangladesh Government and JICA, thus it took high time to receive the payments and the involvement of manpower is also higher than payables.

Sl.	Particulars	No of months to process	Months need of Payment	Required Manpower	Bank Involvement
01	Remittance from IGHQ	0.5-01	01	05	Partial
02	Sales revenue from buyer	08-09	03	09	Partial (3-rd party gateway)
03	Advance on agreement	01	02-03	04-05	Partial
04	Short term loan	0.3-0.5	0.5	03	Yes

Table 1.2: Accounting Management KPI for Toa Corporation (Receivable)

In this report the next discussion will reflect how Toa Corporation improved the KPI in accounting management systems by adopting technology over some years and began to gain benefits and increasing the overall efficiency of the management department by the access of the application programming interface and the electronic data interchange.

Chapter 2 Bangladesh Chapter

2.1 Bangladesh Chapter

TOA CORPORATION has started its journey in Bangladesh in 2020 with 03 years contract with BEZA (Bangladesh Economic Zone Authority) and a OTJ (Obayashi Corporation, Toa Corporation and JFE Steel Corporation). It has launched two projects as below mentioned list-

SL	Buyer/ Employer	Ministry	Development Partner	Developer	Name of the project	Name of Contractor(s)
01	BEZA	Prime Minister Office	GoB &JICA	Sumitomo Corporation	Land development work for Bangladesh Special Economic Zone Development under Foreign Direct Investment Promotion Project (FDIPP).	Toa Corporation

02	Bangladesh Railway (BR)	Ministry of Railways	GoB & JICA		Package WDI-Bangabandhu Sheikh Mujib Railway Bridge Construction Project: Eastern Part of Civil Works.	OTJ Joint Venture (Obayashi Corporation, Toa Corporation, JFE Steel Corporation)
03	Chittagong Port Authority	Ministry of Shipping	GoB & JICA	Penta Ocean Construction Company Limited	Package2: Matarbari Port Development Project	Toa Corporation
04	Abdul Monem Economic Zone: BEZA	Public Works Department (PWD)	GoB & JICA	Honda Motor Co. Ltd	Building & Civil Works under BHL Factory Expansion Project (Step-2)	Toa Corporation

Table 2.1: Ongoing project list of Toa Corporation

The size, duration, budget etc. are prescribed as below:

Sl	Name of the project	Possibility of project completion	Size/ Length of the land & bridge	Estimated cost of the project
01	Land development work for Bangladesh Special Economic Zone Development under Foreign Direct Investment Promotion Project (FDIPP).	2023	1000 acres	BDT 10 billion
02	Package WDI-Bangabandhu Sheikh Mujib Railway Bridge Construction Project: Eastern Part of Civil Works.	2025	4.8 Kilometers	BDT 97 billion
03	Matarbari Port Development Project	2028	6.6 Hectors (Approx.)	BDT 177 billion
04	Building & Civil Works under BHL Factory Expansion Project (Step-2)	2024	20,000 SF	BDT 01 billion

Table 2.2: Projects importance for Toa Corporation

Chapter 3 Supply Chain of Toa Corporation

3.1 Buyer supplier network

Procurement Stage: In Toa Corporation of Bangladesh office, the procurement department is designed, executed, and controlled by International General Headquarter (IGHQ) which is in Tokyo, Japan. However, there is a localized purchase department where the local personnel source and manage the quotations and submit those in accounting department. The process took long time since it was not fully automated. BEZA has chosen the developer like

Sumitomo Corporation and the developer has chosen Toa corporation as contractor and Toa Corporation has contracted over 50 suppliers and tier suppliers.

The following tree diagram shows the detailed layout of Toa Corporation and the other sub-contractors.

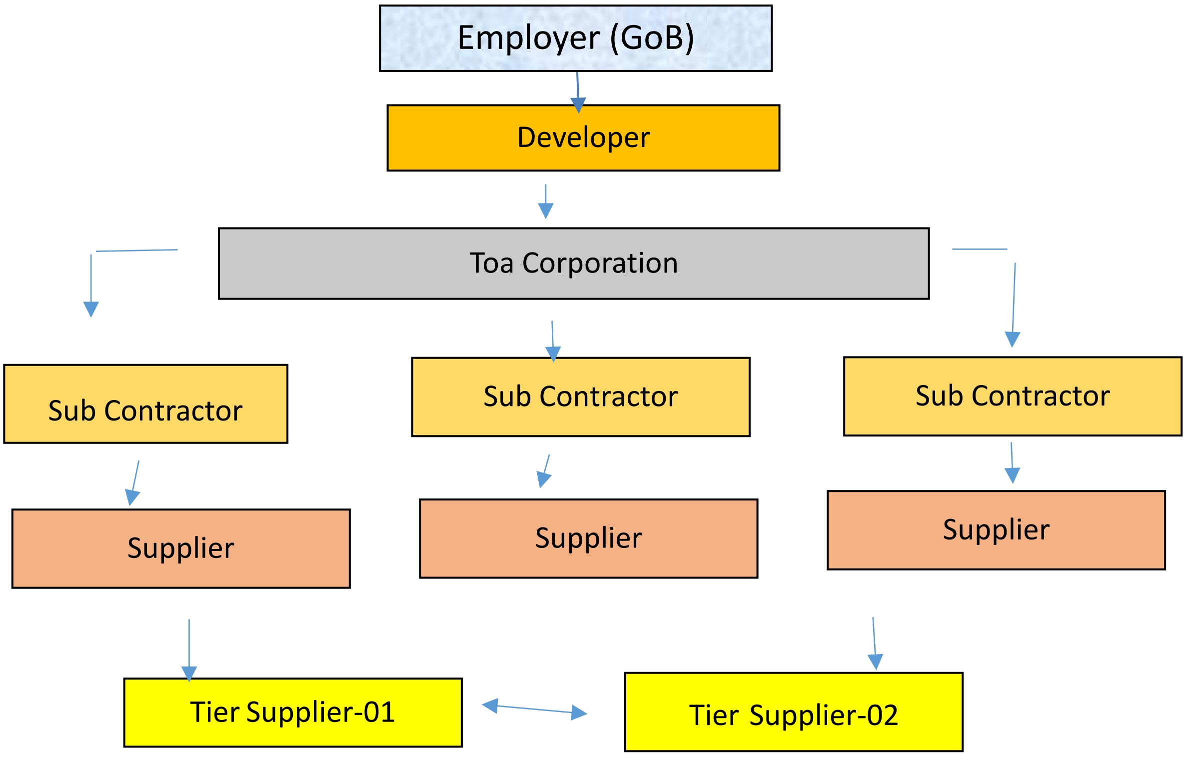

Figure 3.1: Supply Chain Network of Toa Corporation

3.2 The relationship spectrum

As per CIPS, the buyer and the supplier relationship or in the other words supplier management is subjected to the criticality of the goods/services being purchased, determines the type of working relationship that the buyer should look to form with their supplier.

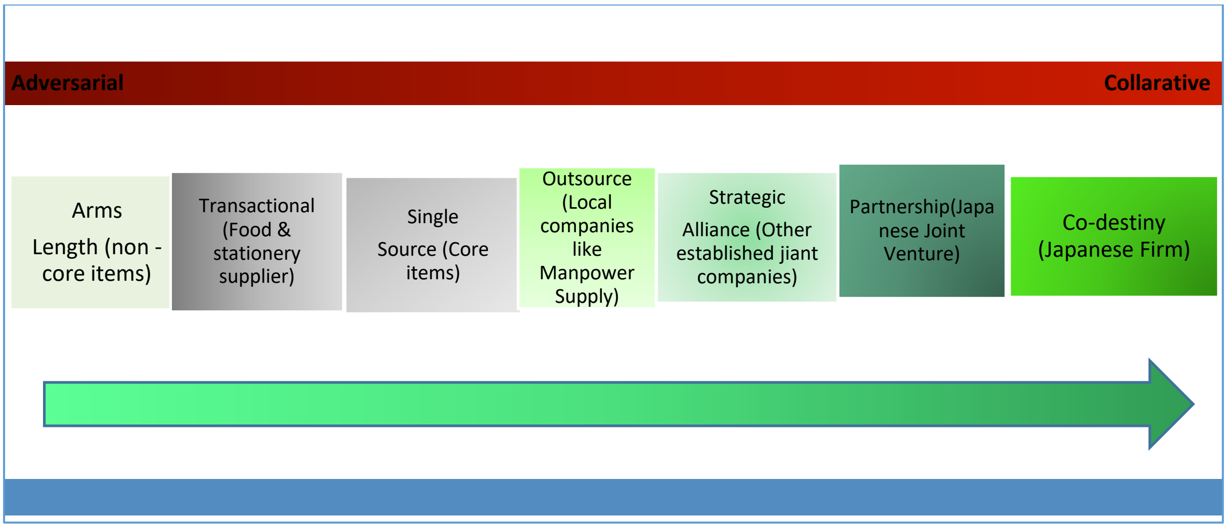

Figure 3.2: Relationship Spectrum

Strategic Alliance: A strategic alliance is an arrangement between two companies to undertake a mutually beneficial project while each retains its independence. The agreement is less complex and less binding than a joint venture, in which two businesses pool resources to create a separate business entity. A company may enter into a strategic alliance to expand into a new market, improve its product line, or develop an edge over a competitor. The arrangement allows two businesses to work toward a common goal that will benefit both. (Investopedia).

Since Toa Corporation is Japan based construction company, they have built a chain relationship like strategic alliance with other Japanese companies that have operation in Bangladesh.

Partnership: According to Wikipedia a partnership is a process of involvement where more than one party agree to cooperate to advance their mutual interests. Generally, these partners are known as business partner. The partners when they are in a partnership may be individuals, businesses, interest-based organizations, schools, governments, or combinations. Organizations may create partner to increase the likelihood of each achieving their mission and to amplify their mission and goals quite quickly than it can be made alone. A partnership may result in issuing and holding equity or may be only governed by a contract. Toa corporation has partnership relation with Sumitomo Corporation & Obayashi Corporation, JFE Steel Corporation.

Outsource: Outsourcing is "the process of contracting with the most suitable expert third party service provider" (CIPS: Outsourcing). In another definition outsourcing can be that process by company which was carried before but now they do not want to invest time here in the non-core business. It is the operational transfer of one or more business processes from an origin company to an external provider who then becomes accountable for the outcome of the agreed tasks (Cooke & Budhwar, 2009). Outsourcing to a foreign country is called 'offshoring' (here the provider can be external or affiliated to the firm) and to nearby countries is known as 'nearshoring'. Transfers to an external, international provider are referred to as 'offshore outsourcing' (Olsen, 2006).

In Toa Corporation, the civil engineers are offshored from different countries like Vietnam, Philippine, Cambodia, China etc. Since the company has not reached in matured level yet, many construction items like generator, excavator etc. are also gone through the outsourcing which is not carried out in Japan headquarter. In Japan, Toa Corporation uses its own construction items where in other countries it is outsourced.

3.3 Procurement Portfolio Matrix

The Kraljic Matrix can be defined as a procurement portfolio classification method whose main objective is to identify the strategic weight of various purchasing families, both internally and externally, to help the business adapt its purchasing strategies. [Internet]

Purchasing strategy of Toa Corporation can be categorized into four different areas like strategic items, leverage items, non-critical or routine items and bottleneck items. The bottleneck items for Toa Corporation are those that can hinder the workflow and may delay the delivery. That's why skilled manpower, knowledgeable personnel, IT software, high compatibility material those are compliance issue can be categorized as bottleneck items.

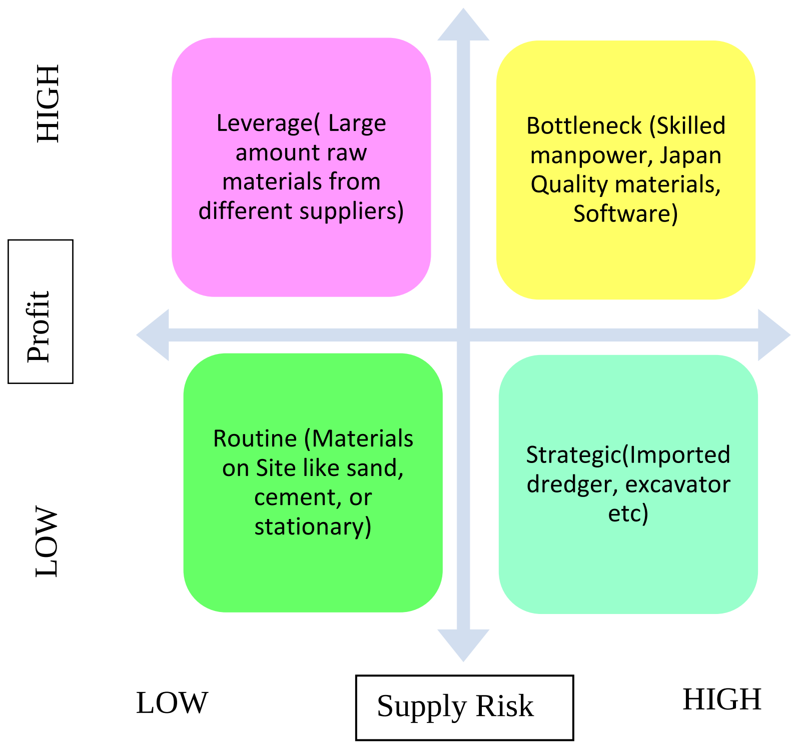

Figure 3.3: Procurement Portfolio Matrix of Toa Corporation

The routine items are those which are purchased and consumed in a periodic manner. In Toa Corporation the routine items are sand, cement, concrete, stationary, foods etc. The purchase strategy is either framework, or direct or single sourced.

The strategic items are those which have high risk and high impact on profitability. Here performance-based partnership with single sources is highly important. In Toa Corporation the strategic items are centrally controlled by the strategic level. Because the items are high value and highly critical to handle, manage and maintenance. The accommodation for Japanese employee, the imported Japanese machines e.g., excavator, dredger, crusher, boom pump, drilling rig, dozers etc. These price, service and maintenance are negotiated by the strategic level because in the construction firm these are the core valued items & services.

The leverage items are those that represent a high percentage of the profit of the buyer and there are many suppliers available. Since Toa Corporation is new in Bangladesh, it uses various consultancy firms for legal, finance, human resource, engineering, medical etc. The prices are very high for this service and there is plenty of supplier for these services.

3.4 Supplier Preferencing Model

Supplier preferencing model is an important segmentation tool which is developed by Steele & Court (1996) that allows a buyer to understand how suppliers view the buying organization and its requirements.

The supplier positioning model is a course of action that businesses tabulate their sources of supplies which is based upon the amount of money spent with the supplier. Not only that, but also on the basis of level of vulnerability a business has if that supplier fails.

The choice of a supplier is directly related to the costs of a business, quality of a product, and customer response time. With continuing manufacturing development, supplier demand is steadily increasing. As a result, the competition between suppliers is becoming increasingly intense. Decision makers often consider various factors, such as cost, product quality, lead time, and risk appetite, when selecting a supplier. Considering these indexes, the problem of supplier selection is a multi-objective and multi-criteria decision-making (MCDM) problem.

As a construction firm, Toa Corporation has versatile number of suppliers who are engaged with and without contractual basis. From accommodation to food supplier and from core engineering to security levels there are numerous numbers of suppliers. It is to be noted here the substitution of suppliers is also very high so that the switching cost is relatively low. So, an exploitable supplier can be a nuisance at any time depending on the availability, quality and many other parameters.

Core Supplier: Core suppliers are those whose business are directly related with the buyer's core business. Based on data of accounting, here the core suppliers are those who can manage the strategic level of Toa Corporation. Sometimes some consultancy firms like Human resource or VAT and Tax related firms are here core suppliers. Because being the nature of foreign country, the human resource and legal affairs for sustainability is highly important for Toa Corporation.

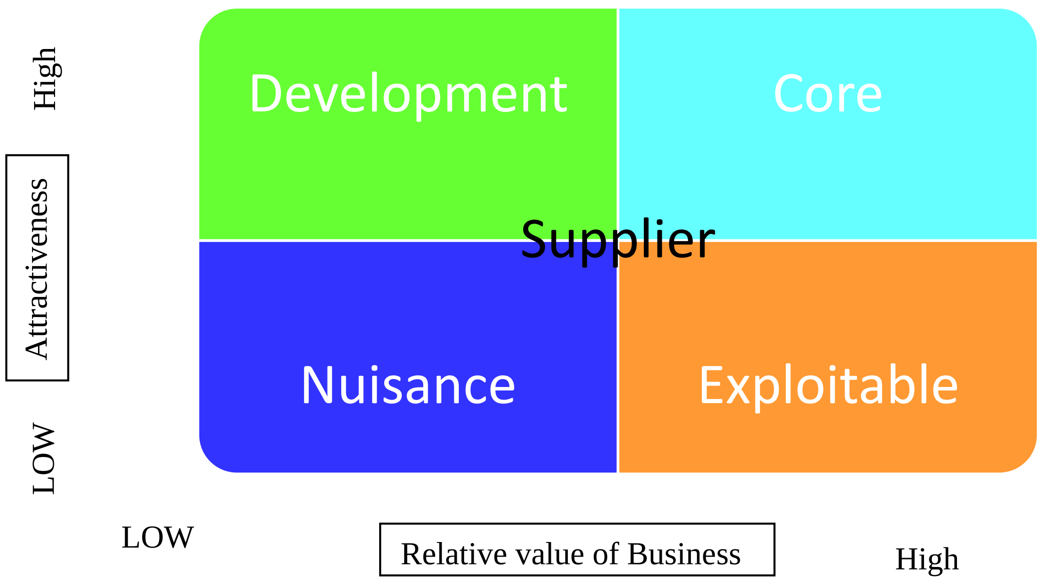

Figure 3.4: Supplier Preferencing Model

Development Supplier: The suppliers who have more valuable business value which can be seen in future and thus be seen as attractive because of possible opportunities, or because the account is a high profile one. For these reasons, the supplier may be willing to meet the agency’s requirements to gain and acquire future business. In such situations there can be many supplier development opportunities, including improving the capacity and performance of these suppliers. For Toa Corporation the development suppliers are construction related companies whose relative business value is low but the attractiveness is high. For example, Shah cement, Mir Akter etc. are their development segment business supplier.

Exploitable Supplier: This supplier does not need to be developed because they are for short term advantages and work for current value. This supplier does not need to show performance reports and customer service meetings. Factors like high distance, inconvenience, low profit may result to take the supplier as exploitable to one-off trade. For Toa Corporation, travel and passage related supplier, fuel & gas expenses etc.

Nuisance Supplier: This may refer to those who business interest is very low to continuity. Buyers don’t want invest time and money on those suppliers. Basically, the stationery, food, entertainments etc. are nuisance supplier whose profit margin is very low compared to other businesses.

3.5 Porter’s five forces Model

When the business requires to analyze the level of existing or the potential competition within a certain industry then Porter’s five forces analysis is used as a framework. In starting a new business or entering a new industry sector, to know the threat opportunity, this tool is highly beneficial for the enterprise. According to this framework, not only the competitors create the rivalry in the industry. Rather, the state of competition in an industry depends on five basic forces: threat of new entrants, bargaining power of suppliers, bargaining power of buyers, threat of substitute products or services, and existing industry rivalry. A business attractiveness is highly depended upon these allied forces strength and the gain loss possibilities can also be determined.

Figure 3.5: Porter's 5 Forces Model

Since Toa Corporation is infant and is not matured enough for Bangladesh that's why the threat of substitutes is high. If Toa Corporation cannot show the quality according to employer's requirements, then new entrants surely grab the market very easily. Surely there is forces in lowering the buyer's bargaining power to enter the new marketplace like Bangladesh. Because there are sufficient number of other Japanese companies who are working here.

Bangladesh is now in a vital position for economic & political reason in the south Asia. Mega projects investments have drawn the notice of various foreign countries. So, thereby, the threat of new entrants is also very high for Toa Corporation. Many other Japanese companies along with Chinese and European and Indian multinationals are highly interested in the investment of Bangladesh.

As our economic activities have increased substantially, market rivalry within the same industry is very much complex now-a-days. The existing local construction company and the company like Toa Corporation has been accounted significantly for market rivalry which means that the internal competition within the industry is increasing day by day a lot.

Chapter 4

Accounting Management Systems

4.1 Electronic Data Interchange (EDI)

Electronic data interchange is now-a-days has adopted by most of the local & international companies for fast, steady & reliable communication gateway media. Electronic data interchange is the concept of businesses electronically communicating information that was traditionally communicated on paper, such as purchase orders and invoices (Wikipedia).

Sometimes EDI can be arduous to implement in reality for few enterprises. One of the important matters is the need to keep pace with shifting government regulations, standards, and updates. Due to its nature of inherent complexity, as it needs to harbor the complexities of global business needs. For example, each trading partner in a B2B network can present individual requirements. Even though two partners may agree on which EDI document to use, each can have unique formatting requirements that need to be supported. These factors, and others, have led many organizations to outsource their EDI solutions.

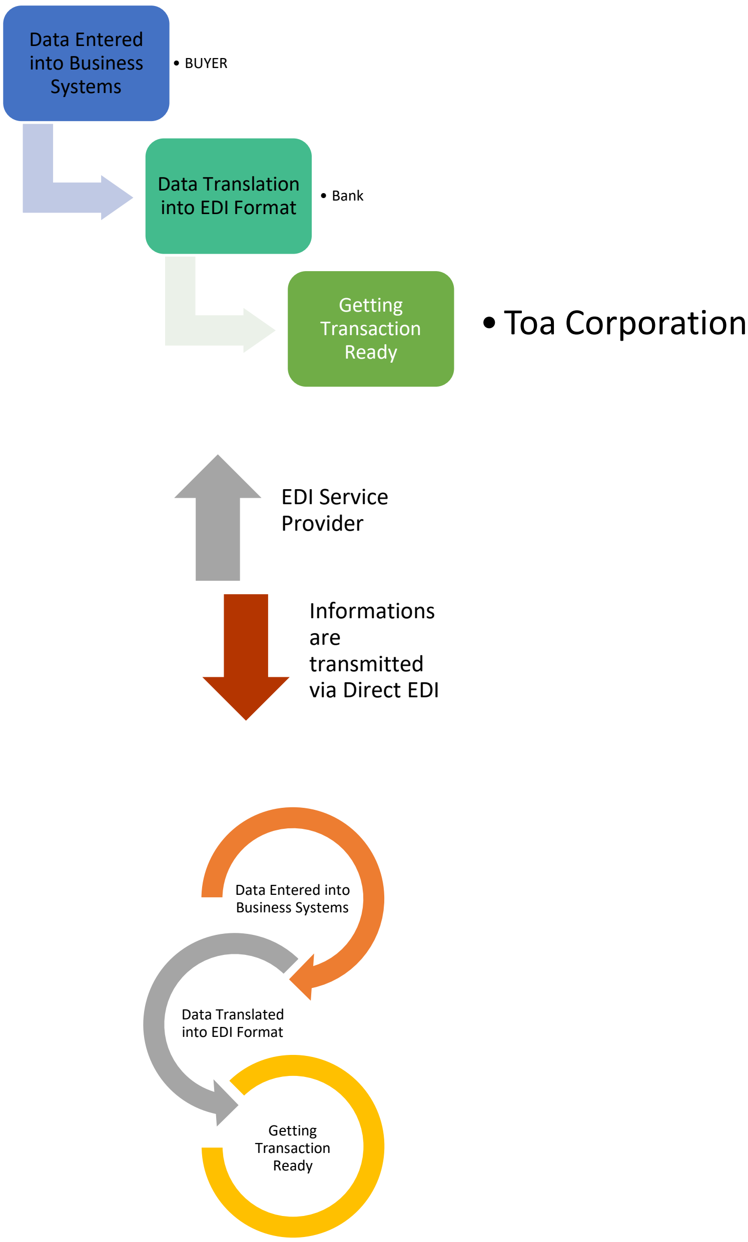

Figure 3.6: EDI Process Model for Straight 2 Bank Accounting Management System

Generally, EDI has replaced the human and laborious involving activities like collecting, processing, distributing, or defusing, reimbursing payments through an electrical channel in the financial sector. In this system there is no requirement of human mediatorship. It provides advantage to the flow of payment between the bank accounts of trading partners. A payee`s bank account is electronically debited and the payer`s account is electronically credited on the scheduled day of payment; such an exchange is known as electronic fund transfer (EFT).

In order to enhance the efficiency, effectiveness and to add value in the supply chain when Toa Corporation adopts the EDI system in accounting management systems the payment systems became faster than before and can be controlled centrally. The network became transparent to all the users and the supplier got motivated to ensure better quality because the commitment can be kept because of the ease of the operation.

In Toa Corporation accounting management system, the Straight2Bank allows direct EDI system through which the team can accelerate fast, secure, reliable payment system. Direct EDI allows for companies to connect to business partners through various communication methods including AS2, Secure Transfer Protocol, Value Added Network, Hypertext Transfer Protocol Systems. Direct EDI is most often seen in large corporations such as retailers, operation managements or hospitals, that have numerous business partners and exchange a high volume of documents.

One of the most vital advantages of this system is electronic data interchange allows to increase the productivity because it is fast, reliable, speedy, and easy to operate. It allows the organization to avoid manual data entry error and thus reduces cycle time of the process. It is very much important just in time (JIT) productivity growing factor. One more important thing is that handling costs of sorting, distributing, organizing, and searching paper documents can be eliminated by this system.

It is a matter of great awareness that, internet-based EDI has no guarantee for security issue and is seriously threatened by online hacking. Thus, it impacts on the EDI business cost. Not only this, but also blocks many potential users who are willing to use Internet-based EDI but are afraid that there will be a lack of confidentiality of information and intellectual properties which may easily be handed over wrong hands. To avoid this circumstances, private networks are encouraged to use and thus the EDI cost become high. Ndubizu and Arinze (2002) demonstrate that, solving the on-line security problem, enforcement of legal rules, creditor rights, shareholder rights and market technology integration will guarantee the on-line business benefit and increase the on-line business amounts. It is high important in order to make internet-based EDI more secure and prosper, international terms and conditions should be developed and enforced globally.

4.2 Data Collection

Since Toa Corporation has started its journey in Bangladesh in the last 2020, so it has not been more than one and a half year for its operation. That is why accounting data had been gathered only for one fiscal year i.e., FY2020-2021. Third party auditor firm named as Acnabin, chartered accountants, the financial audit company has recently prepared Toa corporation's 1st annual financial report.

SL No	General Administrative Expenditure	BDT Amount	Payment Method
01	Rental Expense	2,373,930.00	Bank
02	Fuel & gas	28,110.00	Cash
03	Professional fee	72,286,178.00	Bank
04	Salary & allowance	524,688.00	Bank
05	Telephone & postage	41,201.00	Cash
06	Tools, furniture & fixture	5,241,036.00	Bank
07	Repair & Maintenance	13,075.00	Cash
08	Utilities	38,696.00	Cash
09	Travel & Passage	1,880,707.00	Cash
10	Office supplies	253,306.00	Bank
11	Bank charge	1,150.00	Bank
12	Insurance	35,490,713.00	Bank
13	Entertainment Expense	645,735.00	Cash
14	Food & Welfare	1,468,544.00	Cash
15	Other Payments	357,730.00	Bank
16	Utilities	1,292,061.00	Bank

17	Subscription fee	148,070.00	Bank
18	Legal fee	452,000.00	Bank
19	Safety & Security expenses	68,570.00	Bank
20	Labor Administrative Expense	3,257,487.00	Bank
21	Manpower Supply	4,132,321.00	Bank
22	Miscellaneous Expense	821,384.00	Cash
23	Withholding Tax & VAT	56,286,3740.00	Bank
SL No	Encashment from Japan	BDT Amount	Payment Method
01	Foreign remittance from IGHQ	350,000,000.00	Bank
02	Foreign remittance from IGHQ	200,000,000.00	Bank
03	Foreign remittance from IGHQ	200,000,000.00	Bank
04	Foreign remittance from IGHQ	400,000,000.00	Bank
05	Foreign remittance from IGHQ	200,000,000.00	Bank
SL No	Sales	BDT Amount	Payment Method
01	Progress payment from BEZA	4,736,340.00	Bank
02	Progress payment from BEZA	119,343,385.00	Bank
03	Progress payment from BEZA	285,147,425.00	Bank

Table 4.1: General & Administrative Expenditure of Toa Corporation

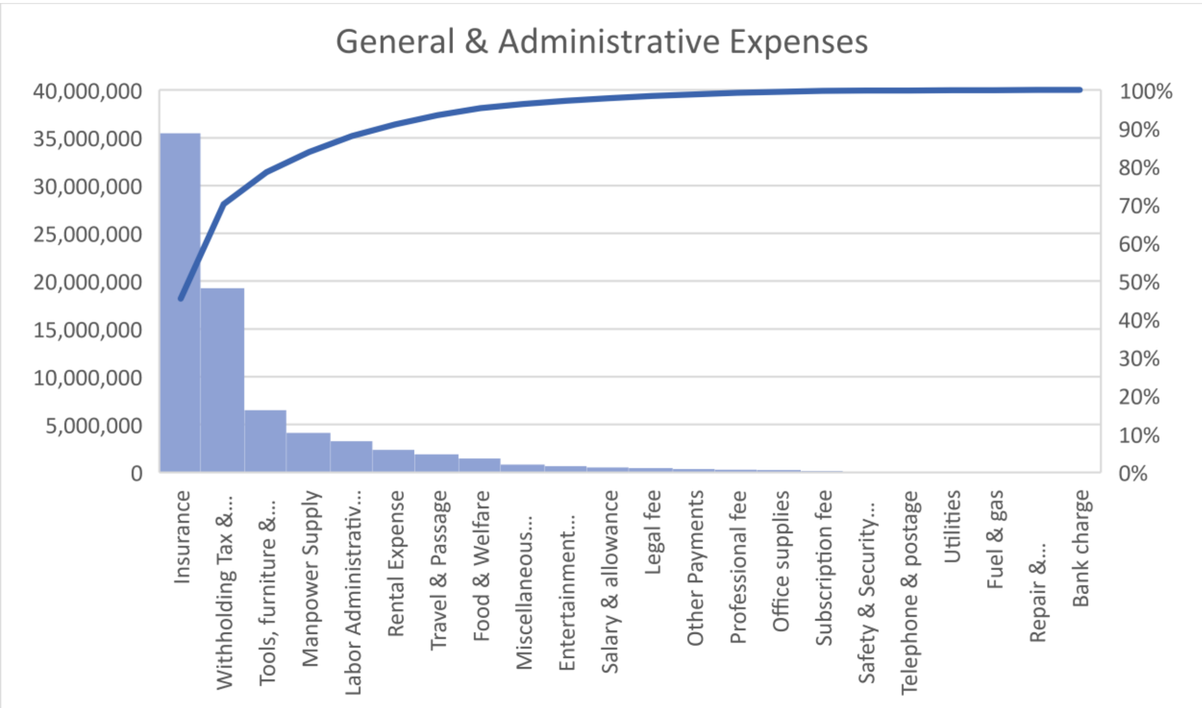

Figure 4.1: Chart of General & Administrative Expenses

4.3 Payment System through EDI

EDI can be used to create a new business information flow. This is the case in the Advanced Shipment Notification (ASN) which was designed to inform the receiver of a shipment, the goods to be received and how the goods are packaged. This is further complemented with the shipment's use of the shipping labels containing a GS1-128 barcode referencing the shipment's tracking number. [Wikipedia]

Formerly Toa Corporation paid all amounts in cash due to the lack of expert and software and other information technology regarding tools. But after implementation of EDI, now the efficiency, work speed and man

In the accounts section there are basically 03 (two) types of payments system. Like-

1. Bank Payments
2. Cash payments
3. Cheque Payments

The bank payments are done when the billing amount is above fifteen thousand. For bank payments the Standard Chartered Banking software named as Straight2Bank (S2B) is used. The Deduction of Income Tax at Source (TDS) and Vat Deduction at Source (VDS) are paid by cheque and deposited in government treasury. There is no expert vat/tax consultants or employee in Toa Corporation basically.

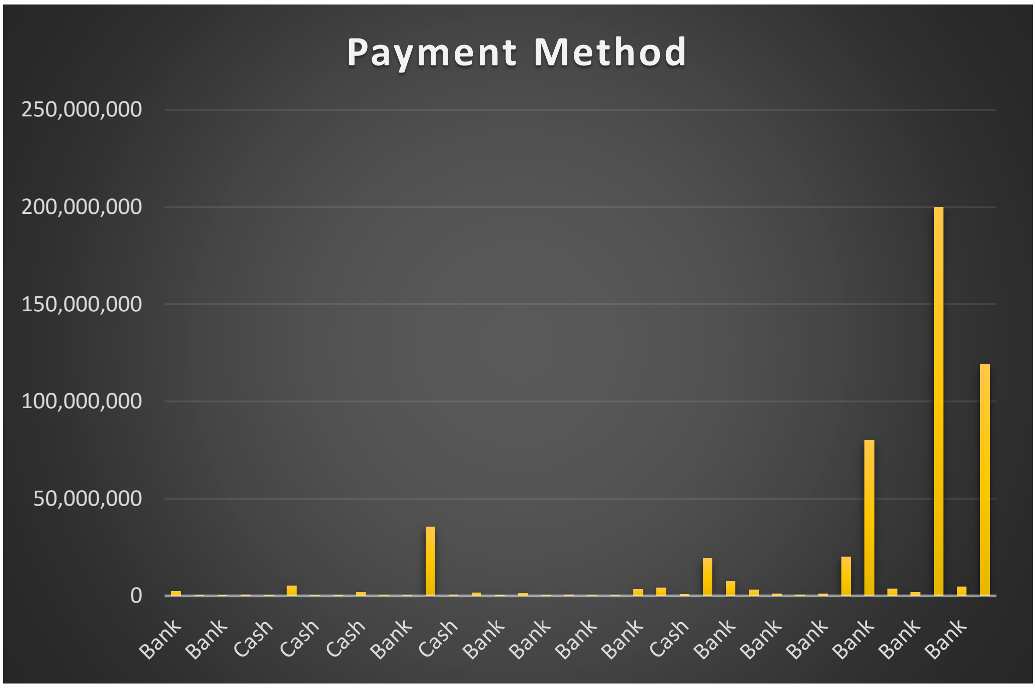

Figure 4.2: Chart of Bank payment & cash payments Vs. Expenses

SL No	Capital Expenditure	BDT Amount	Payment Method
01	Motor Vehicle	7,520,000.00	Bank
02	Temporary Building	3,000,000.00	Bank
03	Office equipment	1,100,000.00	Bank
04	Survey equipment	530,000.00	Bank
05	OTJ Payment	1,000,000.00	Bank

Table 4.2: Capital Expenditure of Toa Corporation

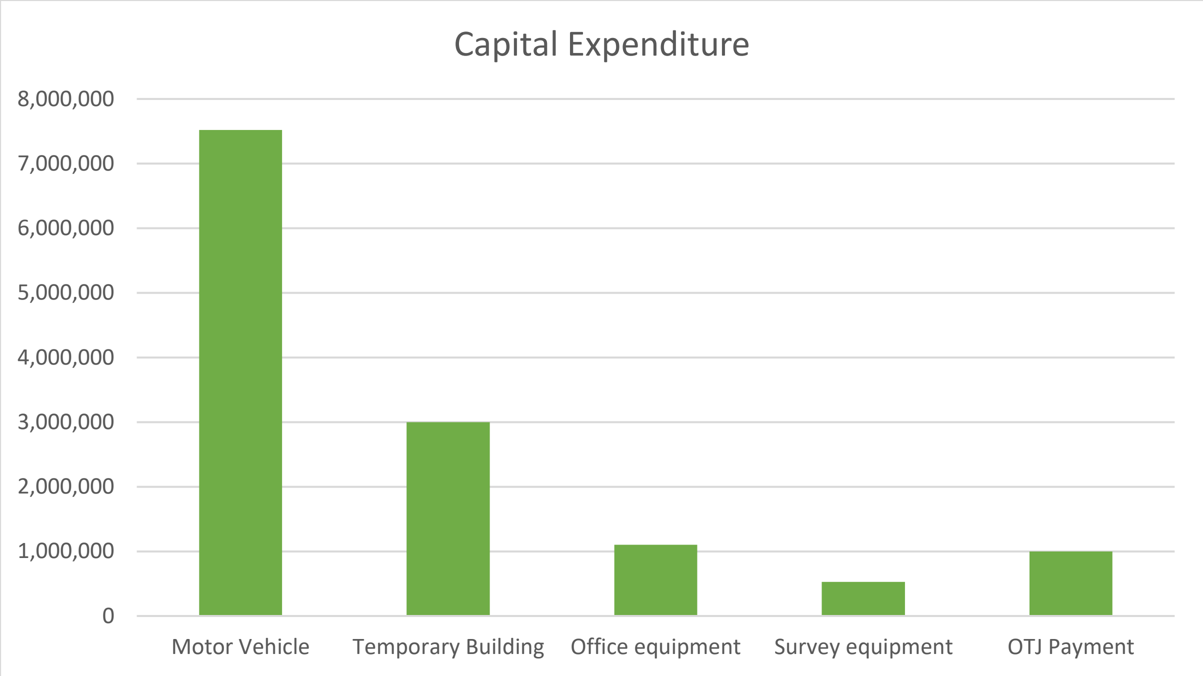

Figure 4.3: Chart of Capital Expenditure

SL No	Operating Expenditure	BDT Amount	Payment Method
01	Material	20,000,000.00	Cash & Bank
02	Subcontractor	80,000,000.00	Bank
03	Rental of Machine	3,500,000.00	Bank
04	Equipment	1,800,000.00	Bank

Table 4.3: Operating Expenditure of Toa Corporation

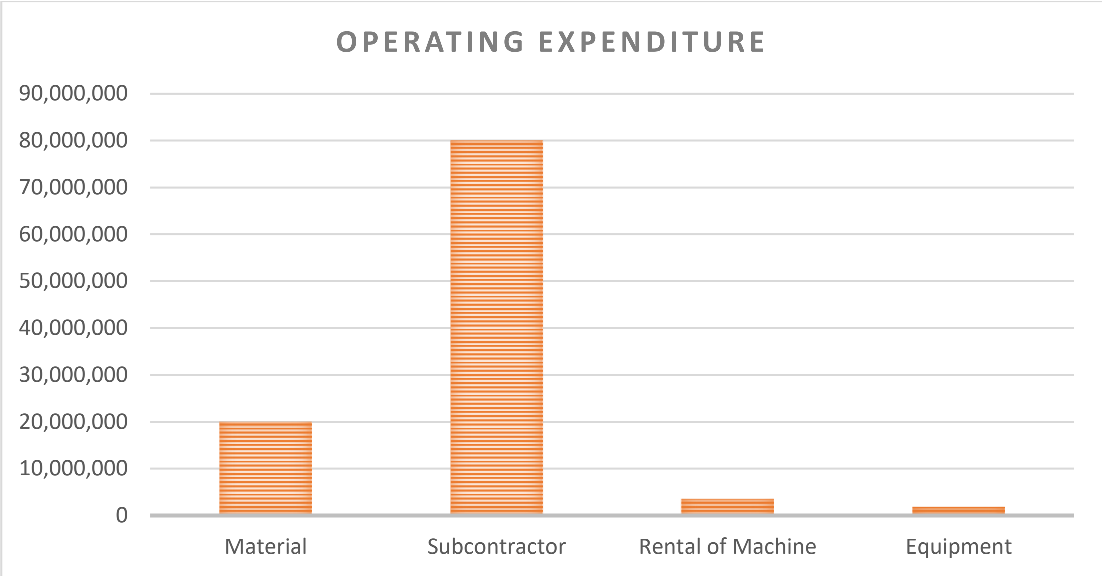

Figure 4.4: Chart of Operating Expenditure

The typical procurement cycle is done by two stages-

1. Work order
2. Purchase order

The work order is carried out by the strategic level and the subcontractors are selected by the strategic departments for core items. After finalization the work order is forwarded to operational level for scrutiny and if no error found the payments are done and next forwarded to tactical level. The procurement officer than liable to deliver the goods or services. If there are any disputes or any unwanted occurrence, that is solved by the functional and operational level.

4.4 Data Analysis

After launching EDI systems in accounting management systems, Toa Corporation is now paying more payments using online gateway rather than cash. The efficiency of the department has increased more than 30% than before. The cost is also minimized.

From the above Table 4.1 and Figure 4.1, it is vivid that Toa Corporation pays very high for the insurance and following in VAT and Tax sectors. Being a construction company by nature Toa depends highly in the insurance to minimize the risks. Secondly from figure 4.1 it is very much understood clearly that Toa Corporation intends to pay more in Bank than cash.

Thirdly from figure 4.2 Toa pays high in motor vehicle. Its maximum expenditure is car and vehicle centric. A foreign country cannot buy permanent land. Their fixed assets are considered to be the car & vehicle and such kind of things.

Finally, we see from figure 4.4 that Toa Corporation is highly interested to maintain the cost of subcontractor. Since Toa's business is now in infant stage, they are partially dependent upon the other contractors and subcontractors. Table 4.4 reflects that after the implementation of automated EDI systems, Toa Corporation's payable accounting systems efficiency has changed substantially than it was before. The payment process has become more shorter and quality can be authorized electronically and the manpower requirement is also become lesser than it was formerly.

Sl.	**Particulars**	**No of days to process**	**Days need of Payment**	**Required Manpower**	**Authority Approval**
01	Sourcing	02-03		02	Yes
01	Quotation collection	01		02	
02	Cash Withdraw	01		01	Yes
03	Check Processing	01		01	
04	Petty cash voucher payables	01		01	
05	Invoice processing by Toa	01-02		02	
06	Invoice payables by Bank	01	Do	02	Yes
07	Work order processing	01		01	
08	Supplies check, receive, store	01		01	Yes (Quality Assurance)

09	Information Technology	01		01	Yes
10	Software entry for payments	01		02	
11	Withholding AIT & VAT Processing	01-02	01	01	Yes
12	Electronic Invoice Payments	01	01	01	Yes

Table 4.4: Advanced Accounting Management KPI for Toa Corporation (Payable)

5. Conclusion

Outsourcing of low strategic importance resources like goods or labor has become tremendous important to small companies compared to giant companies. Outsourcing can save cost, time and also sometimes quality. It is one of the best benefits of outsourcing. Toa Corporation can offer high cost-effective policy due to its scale and establishment effects. To save time and activities and to minimize unnecessary movements, successful companies has trained labor resources, machine, materials, and high flexible information management systems. Established companies, with the help of its strong market position, can provide high quality products and services. Since this is the era of fourth industrial revolution, it drives to companies increasing the capacity for more goods or technologies to equip itself.

Toa Corporation pays maximum payments by bank system. At least 80% payments are transacted by banking systems. The entertainment, welfare etc. are paid cash. In cash payment there is very small number that are found defective and the product or services are refunded or returned.

These systems have made the processes very easier for tracking and defending the fraudulent or any corruption. VAT and Tax are also can be ensured fully by online banking payment systems. Here some problems create like the amount of salary tax and the service and goods taxes are quite difficult to determine according to its clause of section.

There is no doubt that Electronic Data Interchange (EDI), is one of the most powerful access tools for communicating between trading partners. EDI can provide high speed in terms of this competitive market where financial and strategic advancements of new business is in high demand. It permits to enter into new and advance level services. It will not be enough if we consider this tool as smart tools and techniques for modern supply chain management. There is high evidence that have supported the claim that the expected tangible advantages prove to be valid: EDI helps indeed to accelerate communications, allows for better control over information flows and quality, decreases the volume of paper, and reduces costs, thus obtaining a higher service level. Thus, EDI adopted companies gain efficiency through lower costs and improve external aspects like client's factors, better relations with partners etc. In spite of these perceived advantages, EDI in the maritime transport sector is still in the stage of introduction, compared to the airline and airport industries.

This report describes about various aspects of EDI in the business world, and more specifically how EDI has changed from its original concept. The use of EDI has enabled Toa Corporation to function as an additional booster to enhance performance with efficiency and effectiveness. Payments through EDI is the safest and fastest ever. The mentioned data shows this claims evidence that installation of EDI has increased the efficiency of management around 60% than it was before.

For the first two years, it was very high challenging for Toa Corporation to adopt the EDI and maintenance and operate friendly among the management of different levels. There was suspense about the transaction security issues and the responsibility to share the risk and loss due to any kind of failure of the system. But day by day Toa Corporation has overcome all the pros and cons; enable itself for better performance with speed, quality, assurance, reliability, responsiveness and taking competitive advantage with the other subcontractors and existing buyer.

We all know that the use of EDI was slowed down due to high software investments, now, internet-based EDI is a dominant position over dedicated software implementations. Those company who have implemented EDI in the very first earlier are often the big winner of EDI investment. Small entrepreneurs can also take benefits from installing in small range EDI so that they are benefited indirectly. Now-a-days business trends like f-commerce, outsourcing, e-commerce, and the business-to-business (B2B) marketplace are all steps into collaborative commerce, where the integration of information technology and effective electronic communication is the topmost priority. Though there is a high burning question to slackening the growth rate of business about EDI incompatibility, adoptability, security, company size and type, internationals and cultural differences, still there exists a pragmatic vibe for EDI and a blessing for Toa Corporation.

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