International Journal of Scientific Research in Engineering and Management (IJSREM)
Volume: 06 Issue: 05 | May - 2022 Impact Factor: 7.185 ISSN: 2582-3930

A Study of Supply Chain Management in Foundry Industry with Special Reference to Kolhapur District

Mayuri L.Kulkarni
Research Student
Bharati Vidyapeeth (Deemed to be University):
Institute of Management, Kolhapur
Dr. R.U. Kanthe
Director
Bharati Vidyapeeth (Deemed to be University):
Institute of Management, Kolhapur
Dr. B.R.Patil
Associate Professor
Bharati Vidyapeeth (Deemed to be University):
Institute of Management, Kolhapur

Abstract
To Survive and thrive within an increasingly competitive market place and to succeed on sustainable basis, organization must adopt the new techniques and business models like supply chain management. A supply chain management consists of all the stages involved directly or indirectly in fulfilling the customer request. The supply chain not only includes the manufacturers & supplies, but also transporters, warehouse, retailers & customers themselves. Kolhapur is a leading foundry cluster, in providing quality castings to its customers majority of the foundry units in the cluster cater to the automotive sector along with other sectors such as pumps/valves, sugar, textiles, etc. Productivity is reduced due to the occurrence of defects in the foundry. These defects occur in various processes of manufacturing. The rejection percentage is not within the company
standards in some places. The purpose of any business is to reduce supply risk at lower cost, provide timely delivery, increase customer service, the proper managing the flow of information and product with compressed cycle time and reducing overall operational cost.
.

Keywords: *Supply chain, foundry ,process, defect free, procedure,policies*

1. Introduction

- **Supply chain Management:**

Supply chain management is a systematic approach to managing the distribution of goods from producers of raw materials, through manufacturers and eventually down to end users. Supply chain management affects manufacturing companies in a variety of ways, including the availability of inputs needed for production processes, costs and profitability of manufactured items, company infrastructure and ways in which companies interact with their suppliers and customers.

Supply chain management in foundries manages Issues related to production management such as Quality, Material planning, Inventory, Technology, Waste, Rejection, Quantity, Productivity, ISO, Modern Production management Techniques, Poka Yoke, Safety stock, Raw Material Procurement, Raw material testing, Control, etc.

- **Foundry and its processes:**

Foundry is the most basic industry and it is the feeder industry for many manufacturing industries. Foundry is a workshop where the castings are manufactured. Casting is the process of creating a shape for iron by melting it. The iron will be melted and made in liquid form and it is poured in the hollow cavity of the desired shape called mold. The core made of sand will be used to create the desired shape. Once the metal gets cool, the iron casting will be ready with some geometrically complex shape. Other metals like magnesium, aluminum, zinc, steel, and copper-based alloys can also be used to make castings. These all castings will be majorly used in cars, trucks, planes, trains, mining and construction equipment, oil wells, pipes, toys, space shuttles, wind turbines, and nuclear plants, etc. The minor changes in the process will happen from company to company. Different stages in the manufacturing of casting include the following:

1) Preparation of molds and charge material. This involves the preparation of (i) Molding sand,
(ii) Casting molds, and (iii) Charge (metals and alloys).

Kolhapur foundry cluster if one of the famous and important foundry clusters in India, it is especially known for automotive castings. Kolhapur is a leading foundry cluster, in providing quality castings to its customers. There are many industrial estates viz: Kolhapur city Shiroli MIDC, Gokul Shirgaon MIDC, Kagal 5-star MIDC, Ichalkaranji industrial estate, Jaisingpur industrial area, Laxmi industrial area, Hatkanagale industrial area are established over a period of time.

The main aim of the foundry industry is to make safer components for automobiles by making defect-free and duly tested components as per the customer expectations. Foundries are implementing and using process

quality assurance techniques right from procurement of raw material, storage, production, packing, and dispatch till receipt of final casting in the hands of customers and that too in good condition. Many foundries are associating with clients from the conceptualization and development stage of the product to fulfill the expectations of customers.

2. Significance of the study

This study will be a significant endeavour in analysis of supply chain in the foundry industry. This study will also be beneficial in supply chain management, corporate strategies with respect to the operations management. It is beneficial to understand the process planning and simulations. By understanding the needs of the simulations and implementations of supply chain management, improvisations and optimization in process time and flexibility. This research will assure about quality improvement and more productivity.

3. Scope of the study

Scope of the study is material flow management and supply chain analysis. The areas of analysis are Foundry and its current function with respective to Kolhapur district. Supply chain management Planning process and its simulation and further implementation. Utilizing manufacturing plants to optimum level of foundry processes.

4. Objectives of the study

1) To examine the significance of Supply Chain management and its implementation of Foundry industry of Kolhapur district.
2) To study the scope of functional areas of Supply Chain Management.
3) To study the impact of Supply Chain Management on profit of the foundry industry for Kolhapur district.

5. Limitations of the study

This research is Secondary research. Therefore, data collection from the employees who are regularly experiencing the problems about the supply chain will not be analysed in this research. Analysis of secondary data is only performed.

6. Background of the study

Kolhapur Foundries are majorly contributing towards the end-user markets like the Automobile sector, Oil engines, Pump and Valves, Electric Motors, agriculture equipment, Food processing industry, Machine tools, Sugar industry, Textile Machinery, etc. But there is a strong need to develop and establish innovative and self-sustained foundry clusters, which can respond to the global demand.

India has its own opportunities and challenges in the foundry industry. But there is a need of developing more competitive strategies to make India number one in the world foundry industry, and that can be possible when the foundries will implement best management practices.

Foundry is indeed the foundation of many industries. To make all processes and working of foundry industries more efficiently and effectively, lean manufacturing process is useful.it eliminates the waste from processes and it improves processes effectively. As the processes are more efficient than productivity of company will increase .it results too more beneficial for the more upcoming foundry projects of Kolhapur region.

7. Research methodology

a. Secondary data has been collected of from research papers and PhD theses related foundry industry situated near Kolhapur district. Analysis of 530 foundry units is selected and 15 foundry industry Sample size tentatively considered.

b. **Secondary** analysis involves the **use** of existing **data** collected for the purposes of a prior study This research is Secondary research. Secondary data is collected from sources. and this data is studied and analysed. In this research, Supply chain process and its simulations are analysed and studied from research paper which is based on the topic foundry industry related and its functioning data related Kolhapur district which are provided in this research papers.

c. paper-based sources journals, abstracts, research reports, conference papers, market reports, annual reports, internal records of organizations, newspapers and magazines electronic sources online databases, Internet, videos and broadcasts.

d. PhD theses are referred which are the analytical studies of the foundry industries, Kolhapur for recent years. Secondary data was gathered through, the information received from the magazines like outlook, Business world, Business Today, journals and online sources. Shodhaganga theses were the proper resource for the data interpretations.

8. Data analysis and interpretations:

The major findings emerging from this research work regarding prevailing supply chain management practice of surveyed foundry industry of Kolhapur district. Findings are analysed based on the supply chain management practices survey

I. **General information regarding Foundry industry from analysis:**

As per the 2020 research data analysis, in foundry industries 3(30%) having the annual sales turnover between 5001-10000 lakhs followed by 2(20%) each 3000-3500 lakh, 10001-20000 lakhs and 1(10%) each, 3501-5000 lakhs, 20001-30000 lakhs and above 30001 lakhs. foundry industries have got the different capacity of melting the material which varies from up to 250 tons to above 3001 Tons per months (P.M.) This depends on production schedule in hand, availability of raw material, break down time of the plant and its capacity etc. The majority of surveyed units have adopted the modern production processes with the aim of producing the desired and specified product, for smooth production processes and minimizing the waste.

II. **Inventory Management and Inventory Control**

In all the surveyed units only selected inventory control technique are used which are common and very popular like ABC Analysis, XYZ Analysis, MIL / ROL, FSN and HML analysis etc. Various types of updated MIL/ROL systems like value-based MIL/ROL, D-class based system (4 bin system), various types of matrixes like ABC V/S XYZ ANALYSIS (useful for inventory in store) and XYZ V/S FSNOD ANALYSIS (useful for inventory in WIP) are not at all used by all the surveyed units. Therefore, it is necessary to implement such new system and matrix for better inventory control. It is also observed that a big amount is blocked in inventory in ―work in process Inventory ―(WIP) and also inventory in ―stores of all the surveyed units. A proper analysis of such inventory is not done in all the surveyed units. The procedural steps of ―core process for forming the inventory polices‖ are not properly followed in all the Surveyed organizations. It is very much necessary to follow it seriously for having better inventory management and control system.

III. **Effective implementation of Supply Chain Management Practices** the Supply chain executives of the majority 15(75%) surveyed units have shown the satisfaction about the supply chain management practices followed in their organizations.

1. **Stores Management-** All the Surveyed Units are following two methods for stock checking i.e Annual Stock (A.S) verification and perpetual inventory checking. However, the activity of perpetual inventory checking is not at all followed properly and seriously in all Foundry industries.

2. **Reverse Logistic-** Surveyed Units are receiving the goods back which are sold to the customers through the system of reverse logistic. The various reasons for reverse logistic in all the Surveyed Unit are common. It is also observed that this activity is not properly followed in all surveyed units
3. **Procurement Management** The corrective action to meet the shortages of material the purchase department of all the surveyed units is purchasing the material by paying the premium rate.

This has resulted into higher purchasing cost of the material. It is noted that some of foundry units are units having a separate Inventory Control Department.

4. **Material Planning-** It is observed by the researcher that all the 20(100%) surveyed units are doing the materials planning well by performing various functions and following systems of the supply chain management.

5. **Delivery Schedule-** The 100% surveyed units are following the practice of preparing and circulating the delivery schedule throughout in the organization which is a good practice. There is a production review system for monitoring the status of achievement of delivery schedule in all the surveyed units. Through this system the production target v/s the production done v/s. delivery (sales made), all these figures are weekly very well communicated in all the surveyed organizations through e393 mail. This is a very good practice and a system which gives an idea / to know the exact status of delivery schedule achieved (against target) and actual sales turnover done.

9. Suggestions:

I. the management of all the surveyed units must have a strong & thorough grounding of the principles, practises, procedures & various strategies of supply chain management system.

II. Proper execution of supply chain management system has definitely resulted in the increase of profitability & growth of all the surveyed organizations

III. Updating the knowledge of supply chain management professionals by giving them frequent training on supply chain.

IV. Constant review of performances of the present supply chain management systems.

V. Moral support to motivate the supply chain management professional for smooth execution of supply chain management system.

10. CONCLUSIONS:

If the recommended suggestions are executed then it will definitely support to strengthen and to improve the existing supply chain management system of the surveyed units. If the recommended suggestions are executed then it will definitely support to strengthen and to improve the existing supply chain management system of the surveyed units. These suggestions can be implemented by utilizing the presently available infrastructure with all the surveyed units and will result into increase the productivity, profitability and growth of all the surveyed units.

11. References and Bibliography

1) https://shodhganga.inflibnet.ac.in/bitstream/10603/332201/7/07%20chapter%201.pdf
2) https://smallbusiness.chron.com/supply-chain-management-affect-manufacturing-companies-75841.html
3) **Details of journal with ISSN/ISBN**

ISSN (Online) : 2319 – 8753 ISSN (Print) : 2347 – 6710 International Journal of Innovative Research in Science, Engineering and Technology Volume 3, Special Issue 3, March 2014 2014 International Conference on Innovations in Engineering and Technology (ICIET'14) On 21st & 22nd March Organized by K.L.N. College of Engineering and Technology, Madurai, Tamil Nadu, India

https://www.slideshare.net/KarenMartinGroup/value-stream-mapping-in-office-service-setttings/63-Eight_Questions_forFuture_State_VSM1

3. International Journal of Modern Engineering Research (IJMER) www.ijmer.com Vol.2, Issue.5, Sep-Oct. 2012 pp-3482-3496 ISSN: 2249-6645.

4. IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE) ISSN: 2278-1684, PP: 07-12 www.iosrjournals.org.

International Journal of Research and Scientific Innovation (IJRSI) | Volume IV, Issue VIS, June 2017 | ISSN 2321–2705

Citation: Salwin, M.; Jacyna-Gołda, I.; Ba´ nka, M.; Varanchuk, D.; Gavina, A. Using Value Stream Mapping to Eliminate Waste: A Case Study of a Steel Pipe
Manufacturer. Energies 2021, 14, 3527. https://doi.org/10.3390/en14123527 Academic Editor: Valentina Colla Received: 19 May 2021 Accepted: 11 June 2021Published: 14 June 2021
Publisher's Note: MDPI stays neutralwith regard to jurisdictional claims in published maps and institutional affiliations.
IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE) ISSN: 2278-1684, PP: 07-12 www.iosrjournals.org

IIMB Management Review (2015) 27, 92e104 "International Journal of Operations & Production Management, Vol. 17 No. 1, 1997, pp. 46-64. © MCB University Press, 0144-3577"

"International Journal of Mechanical and Production Engineering Research and Development (IJMPERD)

ISSN (P): 2249-6890; ISSN (E): 2249-8001 Vol. 7, Issue 3, Jun 2017, 283-300

© TJPRC Pvt. Ltd" "International Journal of Supply and Operations Management IJSOM February 2015 , Volume 1, I ssue 4 , pp. 392 406 ISSN Print: 2383 1359 ISSN Online: 2383 2525 www.ijsom.com"

"American Journal of Software Engineering and Applications 2020; 9(1): 19-34http://www.sciencepublishinggroup.com/j/ajsea doi: 10.11648/j.ajsea.20200901.12

ISSN: 2327-2473 (Print); ISSN: 2327-249X (Online)"

"International Business Research; Vol. 12, No. 8; 2019 ISSN 1913-9004 E-ISSN 1913-9012

Published by Canadian Center of Science and Education" "Proceedings of the 2nd European International Conference on Industrial Engineering and Operations Management, Paris, France, July 26-27, 2018"

"IRC'S INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH IN SOCIAL & MANAGEMENT SCIENCES VOL.3 ISSUE 1 ISSN: 2320-8236 JANUARY-MARCH 2015"

ISSN: 1984-3046 • Journal of Operations and Supply Chain Management Volume 7 Number 2 p 01-25

"International Journal of Operations & Production Management

Vol. 26 No. 7, 2006 pp. 703-729 q Emerald Group Publishing Limited

0144-3577 DOI 10.1108/01443570610672202" International Journal of Managing Value and Supply Chains (IJMVSC) Vol. 6, No. 2, June 2015

"ScienceDirect

2nd International Materials, Industrial, and Manufacturing Engineering Conference, MIMEC2015,

4-6 February 2015, Bali Indonesia"

"International Journal of Engineering Research in Africa Vol. 20 (2016) pp 248-258 Submitted: 2015-09 22 © (2016) Trans Tech Publications, Switzerland Revised: 2015-10-02

doi:10.4028/www.scientific.net/JERA.20.248 Accepted: 2015-10-05"

"Boppana V. Chowdary Damian George, (2011),""Improvement of manufacturing operations at a pharmaceutical company"", Journal of Manufacturing Technology Management, Vol. 23 Iss 1 pp. 56 - 75

Permanent link to this document: http://dx.doi.org/10.1108/17410381211196285"

"© 2017 IJSRST | Volume 3 | Issue 3 | Print ISSN: 2395-6011 | Online ISSN: 2395-602X

Themed Section: Science and Technology" "International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, Volume-1, Issue-6, August 2012" "Journal of Production Research & Management ISSN: 2249-4766 Volume 4, Issue 1

www.stmjournals.com" "SSRG International Journal of Mechanical Engineering Volume 7 Issue 11, 1-12, November 2020 ISSN: 2348 – 8360 /doi:10.14445/23488360/IJME-V7I11P101 © 2020 Seventh Sense Research Group" "Contents lists available at ScienceDirect

Cleaner Engineering and Technology journal homepage: www.sciencedirect.com/journal/cleaner-engineering-and-technology"

"2212-8271 © 2020 The Authors. Published by Elsevier B.V.

Peer-review under responsibility of the scientific committee of the 53rd CIRP Conference on Manufacturing Systems

10.1016/j.procir.2020.04.084"

This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/)

Peer-review under responsibility of the scientific committee of the 53rd CIRP Conference on Manufacturing Systems

10.1016/j.procir.2020.04.019"

Peer-review under responsibility of the scientific committee of the 11th CIRP Conference on Intelligent Computation in Manufacturing Engineering

doi: 10.1016/j.procir.2017.12.171"

Peer-review under responsibility of the scientific committee of the FAIM 2021."

Peer-review under responsibility of the scientific committee of the 51st CIRP Conference on Manufacturing Systems.

10.1016/j.procir.2018.03.21"

Selection and peer review under responsibility of the Gokaraju Rangaraju Institute of Engineering and Technology (GRIET)

doi: 10.1016/j.mspro.2014.07.192"

"Available online 10 September 2021 2666-7908/©https://doi.org/10.1016/j.clet.2021.100270

Received 4 May 2021; Received in revised form 13 August 2021; Accepted 2 September 2021"

Selection and peer-review under responsibility of DAAAM International"

"Int. J. Radiation Oncology Biol. Phys., Vol. 71, No. 1, Supplement, pp. S187–S190, 2008

Printed in the USA. All rights reserved 0360-3016/08/$–see front matter"

"Received 24 August 2021; Received in revised form 18 October 2021; Accepted 16 November 2021 Available online 23 November 2021

0303-2434/© 2021 The Authors. Published by Elsevier B.V."

"7th IFAC Conference on Manufacturing Modelling, Management, and Control

International Federation of Automatic Control June 19-21, 2013. Saint Petersburg, Russia"

"12th Global Conference on Sustainable Manufacturing
2212-8271 © 2015 Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/3.0/).

Peer-review under responsibility of Assembly Technology and Factory Management/Technische Universität Berlin.

doi: 10.1016/j.procir.2014.07.075"

"51st CIRP Conference on Manufacturing Systems 2212-8271 © 2017 The Authors. Published by Elsevier B.V.

Peer-review under responsibility of the scientific committee of the 28th CIRP Design Conference 20"

"M. R. Jajja, D. Maxwell, S. S. Hashmi, A. E. Eckhoff,

R. S. Meltzer, R. Medbery, E. Lin, J. F. Sweeney and

J. M. Sarmiento

*Corresponding author. Mohammad Raheel Jajja, Emory

University, USA 2214-7853/ 2019 Elsevier Ltd. Selection and Peer-review ." " 2019 Elsevier Ltd.

Selection and Peer-review under responsibility of the scientific committee of the International Mechanical Engineering Congress 2019: Materials Science." "unit delivery fulfilment.

© 2020 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (https://creativecommons.org/licenses/by-nc-nd/4.0/) Peer-review under responsibility of the scientific committee of the 8th Manufacturing Engineering Society International Conference"

"IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE)

e-ISSN: 2278-1684,p-ISSN: 2320-334X, Volume 14, Issue 2 Ver. I (Mar. - Apr. 2017), PP 09-13

www.iosrjournals.org"

"June 2015, Volume 2, Issue 6 JETIR (ISSN-2349-5162)

JETIR1506064 Journal of Emerging Technologies and Innovative Research (JETIR) www.jetir.org 2051"

"International Journal of Research and Scientific Innovation (IJRSI) | Volume IV, Issue VIS, June 2017 | ISSN 2321–2705

www.rsisinternational." "Mariusz Salwin 1,* , Ilona Jacyna-Gołda 1 , Michał Ba´nka 1, Dari Varanchuk 2 and Anna Gavina 2

Citation: Salwin, M.; Jacyna-Gołda, I.; Ba´ nka, M.; Varanchuk, D.; Gavina, A. Using Value Stream Mapping to Eliminate Waste: A Case Study of a Steel Pipe Manufacturer. Energies 2021, 14, 3527https://doi.org/10.3390/en14123527 Academic Editor: Valentina Colla Received: 19 May 2021Accepted: 11 June 2021 Published: 14 June 2021 Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.

1 Faculty of Production Engineering, Warsaw University of Technology, 00-662 Warsaw, Poland;

ilona.golda@pw.edu.pl (I.J.-G.); michal.banka@pw.edu.pl (M.B.)

2 Grenoble Institute of Technology, 46 Avenue Félix Viallet, 38031 Grenoble, France;

varanchuk@gmail.com (D.V.); aniagavina@gmail.com (A.G.)

* Correspondence: mariusz.salwin@onet.pl"

"International Journal of Applied Engineering Research ISSN 0973-4562 Volume 12, Number 23 (2017) pp. 13295-13302

© Research India Publications. http://www.ripublication.com"

"International Journal of Modern Engineering Research (IJMER)

www.ijmer.com Vol.2, Issue.5, Sep-Oct. 2012 pp-3482-3496 ISSN: 2249-6645"

"International Journal of Engineering Research and General Science Volume 5, Issue 3, May-June, 2017

ISSN 2091-2730"

"IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE)

ISSN: 2278-1684, PP: 07-12

www.iosrjournals.org"

"nature of components. This fact impedes an efficient comparison and choice of appropriate product family combinations for the production

system. A new methodology is proposed to analyze existing products in view of their functional and physical architecture."

"ScienceDirect Available online at www.sciencedirect.com Procedia Manufacturing 51 (2020) 1379–1386

2351-9789 © 2020 The Authors. Published by Elsevier Ltd.

This is an open access article under the CC BY-NC-ND license (https://creativecommons.org/licenses/by-nc-nd/4.0/)

Peer-review under responsibility of the scientific committee of the FAIM 2021. 10.1016/j.promfg.2020.10.192

© 2020 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (https://creativecommons.org/licenses/by-nc-nd/4.0/) Peer-review under responsibility of the scientific committee of the FAIM 2021. Available online at www.sciencedirect.com

ScienceDirect

Procedia Manufacturing 00 (2019) 000–000

www.elsevier.com/locate/procedia

2351-9789 © 2020 The Authors. Published by Elsevier Ltd.

This is an open access article under the CC BY-NC-ND license https://creativecommons.org/licenses/by-nc-nd/4.0/)

Peer-review under responsibility of the scientific committee of the FAIM 2021.

30th International Conference on Flexible Automation and Intelligent Manufacturing (FAIM2021)

15-18 June 2021, Athens, Greece."

"© 2017 The Authors. Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Peer-review under responsibility of the scientifi c committee of the 11th CIRP Conference on Intelligent Computation in Manufacturing Engineering"

"2212-8271 © 2020 The Authors. Published by Elsevier B.V.

This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/)

Peer-review under responsibility of the scientific committee of the 53rd CIRP Conference on Manufacturing Systems

10.1016/j.procir.2020.04.019"

"2212-8271 © 2017 Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Peer-review under responsibility of the scientific committee of the 10th CIRP Conference on Intelligent Computation in Manufacturing Engineering

doi: 10.1016/j.procir.2016.06.038" "Int. J. Radiation Oncology Biol. Phys., Vol. 71, No. 1, Supplement, pp. S187–S190, 2008

Copyright 2008 Elsevier Inc. Printed in the USA. All rights reserved 0360-3016/08/$–see front matter

doi:10.1016/j.ijrobp.2007.07.2385" "7th IFAC Conference on Manufacturing Modelling, Management, and Control International Federation of Automatic Control June 19-21, 2013. Saint Petersburg, Russia"

Phd Thesis Citation:

1) http://hdl.handle.net/10603/331577

Title of Thesis : A study of Management Practices in Foundry Industry with special Reference to Kolhapur District

Name of the Researcher : Swami V S

Name of the Guide : Gurav A M

Completed Year : 2020

Abstract : newline

Name of the Department : Department of Commerce & Management

Name of the University : Shivaji University.

Title: An Analytical Study of Supply Chain Management System in Selected Engineering Units in Kolhapur Researcher: Remane G NGuide(s): Deshmukh U M Keywords: Economics and Business Management
Social Sciences

University: Shivaji University CompletedDate: 2019Abstract: newlinePagination: 543URI: http://hdl.handle.net/10603/332201Appears in Departments :Department of Commerce & Management

2) http://hdl.handle.net/10603/332201

Title of Thesis : An Analytical Study of Supply Chain Management System in Selected Engineering Units in Kolhapur

Name of the Researcher : Remane G N

Name of the Guide : Deshmukh U M

Completed Year : 2019