

Benefits of ERP : Business Analysis

Company : **JQR Sports(India) Private Limited**

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JQR Sports(India) Private Limited

JQR Sports(India) Private Limited formerly known as Luxmi Shoes Private limited is a private company incorporated in 26 Dec , 2011 and it's operation is in Bahadurgarh(Haryana).

The company manufactures footwear.It offers sports, leather and canvas shoes for men, women and kids.

The companies estimated turnover is 50 Cr. for one financial year , with a manpower of 500-600 employees across different departments such as Sales, Production, Distribution, Finance and Accounting.

Why ERP System for JQR?

1 ERP System Solves IT Multi-Platform Issues

JQR finds themselves running different softwares for different departments in the company, these are incompatible, expensive and outdated to serve the purpose. With a common IT platform in place—the hallmark of an ERP system—IT operational costs are drastically reduced, as they help automate processes, increase productivity, reduce/re-purpose headcount and retire costly legacy systems

Why ERP System for JQR?

2

Streamline their Communication

With ERP application, business activities and company performance can be better monitored and controlled.

With the Real-time information being available, JQR could make better educated decisions, based on real time data.

Faster response times and increased interaction across the organization as a result of streamlining processes

Why ERP System for JQR?

3

Data mining and Analytics

ERP can help the business to extract more value out of their data. Advanced Machine learning models can be easily implemented on well structured data presented by ERP. This in turn can help JQR in making better decision related to operation, finance, asset management and human capital



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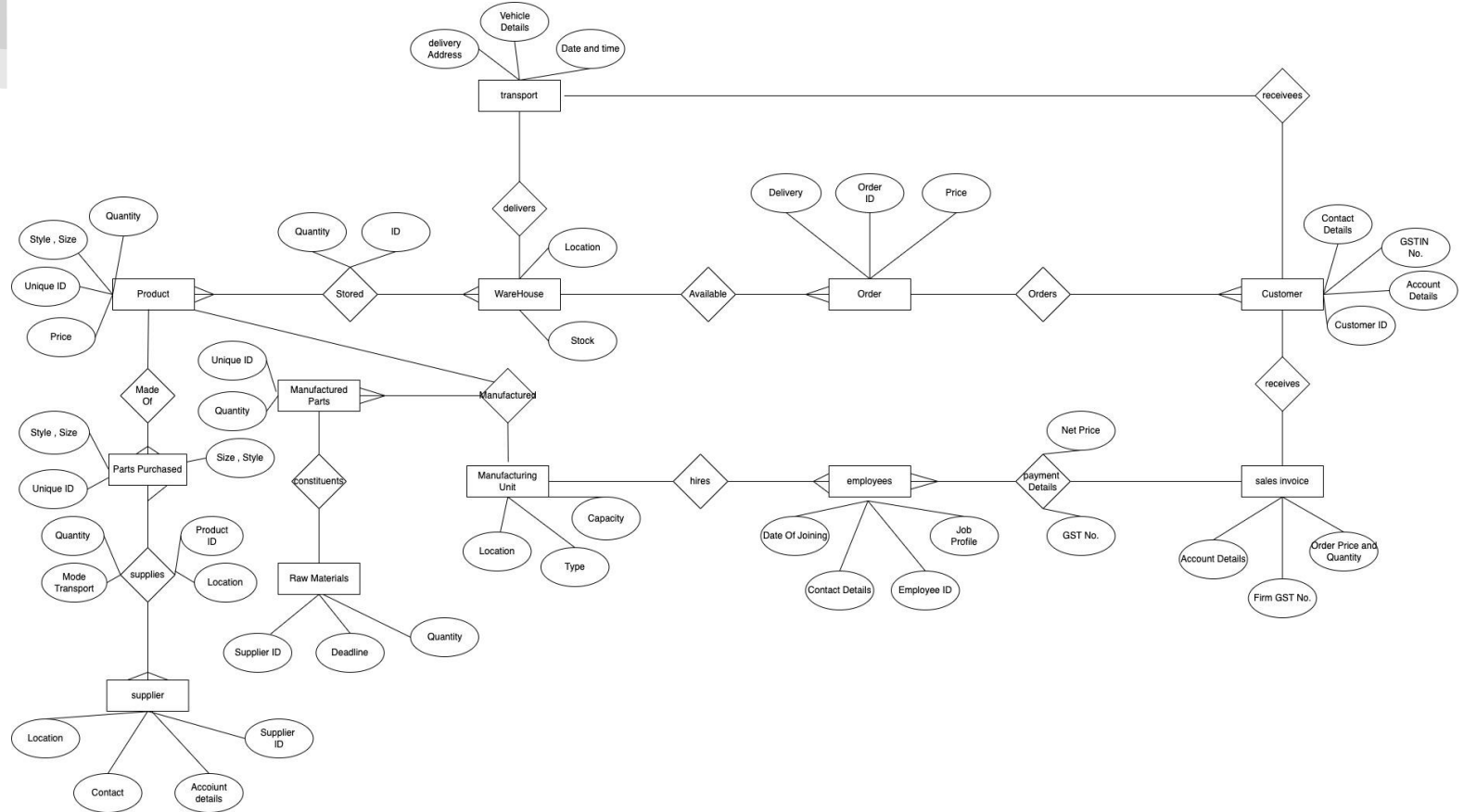
4. Production Management

Currently the company manages the raw material requirement based on the human guesses which sometime results in ordering material more than its requirement. ERP will help in planning , capacity management , maintenance to get the maximum efficiency in the manufacturing processes.

5. Customer Relationship Management

Customer information, sales history and getting and capitalizing on the new customer leads will help increase their revenues manyfolds.

ER Diagram





RDBMS Selection : PostgreSQL

Due to complicated queries and a wide choice of custom interfaces accomplished with predefined functions, PostgreSQL is a perfect match for ERP Database. It has strong analytical capabilities, ACID compliance, and powerful SQL engine. All in one, it significantly accelerates the processing of vast amounts of data.

Since PostgreSQL is open source, it has better integration with other third party tools. This leads to significant improvement in usefulness of our data.



Cost Analysis Of RDBMS

Postgres is completely open-source and supported by its community, which strengthens it as a complete ecosystem. Additionally, developers can always expect free and prompt community assistance.

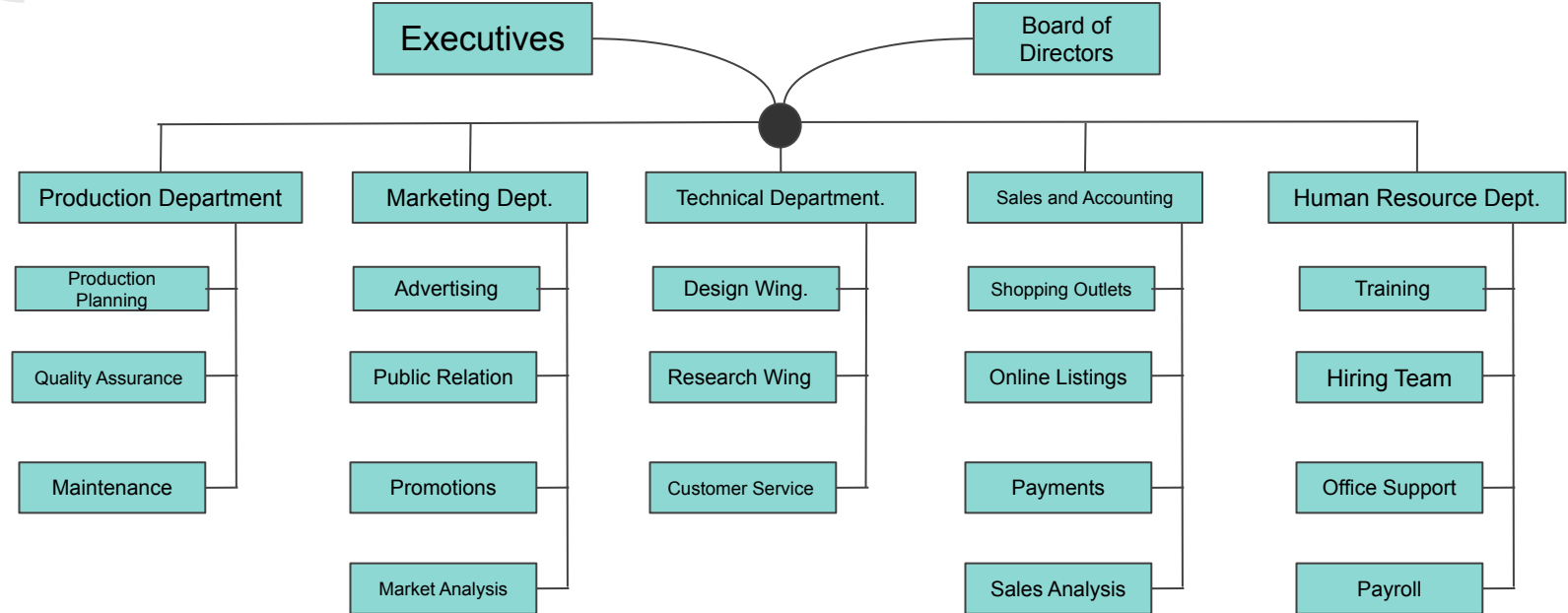
However the enterprise might need some expert to setup the system initially which may incur some charges. The company might also need some training session in order to train the employees.

Questions Answered Using ER



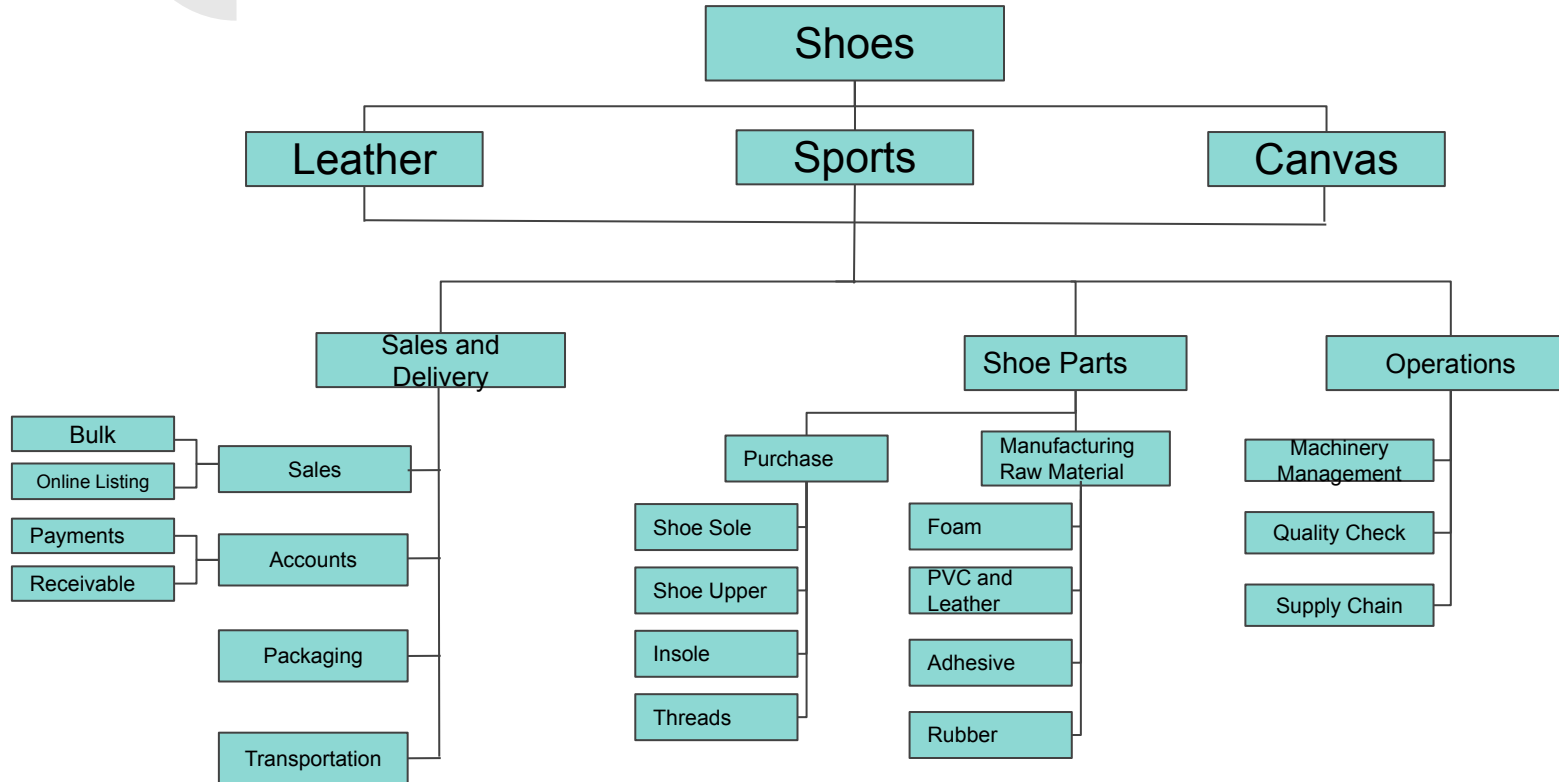
1. Current Stock of a different Shoes , Shoe upper , insole , sole etc.
2. Sales information of different Shoes
3. Production Management based on previous sales
4. Quantity of “Product Parts” that need to be purchased or manufactured
5. Vendors(Who , when , where , price) to purchase raw materials for manufacturing
6. Get information about the suppliers of manufactured product parts according to complex production requirement(Shoe upper , soles , insoles)
7. Customer Relationship Management - Customer info, sales history, credit limit etc.
8. Finance and Accounting - Sale , purchases and profits of the company to take educated decisions
9. Distribution and logistics , warehouse management
10. Info about pending payments to suppliers and customers

Organizational Model



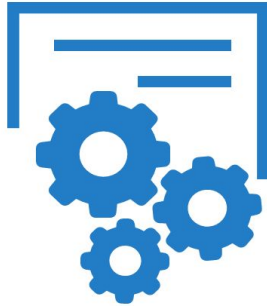


Component Model





The Two key processes in our organisation



PROCUREMENT

Procurement is seen as a strategic function in our industry that works to increase an organization's profitability. It is a tool for lowering the cost and price of raw materials, and helping to lower the "bottom line," in essence

ASSEMBLING

Assembling is the most important process in our organisation. More than just connecting parts together it is the final step in manufacturing , to develop an object that serves a purpose, it combines all the upstream processes of design, engineering, manufacturing, and logistics.



Procurement

A shoe is made up of about 70% elements that come from different vendors and manufacturers. Standards determination, specification development, supplier research and selection, price negotiation, inventory control & storage, and other factors are examined before procurement. The insole, shoe upper, sole, and numerous raw materials like threads, polyester, foam, and adhesives are purchased from a variety of local and national suppliers. Some of the vendors include **Satnam Footcare's DAXOR shoes**, located in Bahadurgarh itself, and **Footlite Footwear Industries** situated in Bhiwani (a 1.5-hour drive away), a few manufacturers include **Kumar Footwear Machinery (KFM)**, situated in Bahadurgarh itself, and **Shree Kanshi Shoe Components**.located in Karnal(2 hour drive away)



Assembling

The most labor-intensive element of our organisation, which includes the manufacturing and procurement procedures, employs about 300 individuals.

Cutting machines, lasting machines, stitching machines for shoes, closing machines (upper assembly), finishing machines, and other heavy machinery are used to carry out various tasks. In many of the assembling processes, supervisors and mechanical engineers are also actively employed.



ERP parameters important for organization

- Cost
- Functionality
- User Interface
- Time
- Vendor
- Reliability
- Flexibility
- Scalability



This Table is created by **Yash Goel**.
Table on the next page is created by
Vaidik Sharma.

	Functionality	Cost	User Interface	Time	Vendor	Reliability	Flexibility	Scalability
Functional ity	1	4	3	4	5	3	4	4
Cost	1/4	1	2	3	2	4	4	3
User Interface	1/3	1/2	1	1/3	2	1/2	3	1/2
Time	1/4	1/3	3	1	1/2	2	3	2
Vendor	1/5	1/2	1/2	2	1	3	2	1
Reliability	1/3	1/4	2	1/2	1/3	1	3	3
Flexibility	1/4	1/4	1/3	1/3	1/2	1/3	1	1/4
Scalability	1/4	1/3	2	1/2	1	1/3	4	1

Few points of conflicts are mentioned:

Yash thinks that if greater functionality and user-interface are attained, the cost factor could be reduced. Vaidik, however, contends that a lower cost must be demonstrated in order to persuade a company to deploy ERP.

Vaidik has preferred Scalability and Reliability over flexibility since a scalable and reliable product is much better with any less flexible system.

	Functionality	Cost	User Interface	Time	Vendor	Reliability	Flexibility	Scalability
Functionality	1	4	3	5	5	4	3	2
Cost	1/4	1	1/2	3	2	4	4	3
User Interface	1/3	2	1	1/3	2	1/2	3	1/2
Time	1/5	1/3	3	1	1/2	2	3	2
Vendor	1/5	1/2	1/2	2	1	3	2	1
Reliability	1/4	1/4	2	1/2	1/3	1	3	3
Flexibility	1/3	1/4	1/3	1/3	1/2	1/3	1	1/4
Scalability	1/2	1/3	2	1/2	1	1/3	4	1



Our Market Research on ERP Solutions

Numerous ERP alternatives are available. SAP and Oracle are the first to come to mind when we think about the most popular solutions because they are the market leaders and have a history of successful implementations.

As it is evident from our AHP that we are looking at functional options that are within the established price range and have a user-friendly interface, as a result, we looked into Microsoft Dynamics and JD Edwards EnterpriseOne, which are known for their cost efficiency and functionality .

We also searched for vendors with prior experience in the industry (in our case, manufacturing), and we discovered Oracle, JD Edwards and BatchMaster.

Finally three solutions were decided, shown ahead.



Oracle

- Experience in implementing ERP for Indian Manufacturing companies
- High-level scalability and performance through RAC and portability features
- Oracle's Modules and SubModules of Manufacturing, Financials, Distribution, and Management fully fulfil our requirements.
- It provides almost similar functionality as that of SAP, but an average Oracle ERP implementation requires a budget of 1.7%-2% of annual revenue, while SAP requires 3.5%-4%.



Microsoft Dynamics 365

- Robust, adaptable and scalable ERP solution that looks and works like other Microsoft products
- Familiar environment means less training and development and a faster return on investment (ROI)
- Tailored to support the specific needs of manufacturing businesses while delivering a low total cost of ownership (TCO)
- Supports Make-to-Stock(MTS) Supply Chain Model important for Forecasting, Market Demand, Seasonality, Warehouse Space
- Price Range: \$70K-\$150K , Monthly Subscription:\$100



JD Edwards

- JD Edwards permits choice of databases, operating systems, and hardware to build and expand IT solution to meet business requirements
- Comprehensive, well-defined product road map, backed with Oracle's lifetime Support and Applications Unlimited program
- It is rated 8.3/10 in Ease of Use and Quality of Support at [G2.com](https://www.g2.com)
- Price Range: \$50K-\$100K



Project Management Team

1. **Executive or Upper Management Leader**

- Sign off on and approve key decisions without having to return to the board room for further advice or approval.
- Provide a figurehead for the project, demonstrating to team members at all levels that upper management is fully behind the project.
- Report back to other members of upper management or the executive board on the progress of the project, as well as learning more about the benefits of ERP implementation.

2. **Project Manager**

- Provide direct leadership and support to the implementation team.
- Keep track of the cost and resource allocation during the project.
- Report on the progress of the project to other departments.



3.Functional Team Members

Selected from the core functions of the company such as finance, manufacturing, sales, logistics.

- Responsible for defining the needs of the department to the project manager
- Responsible for explaining the processes and future requirements to the implementation team, and to future end-users.
- Work within their separate departments to ensure practical implementation success on an individual scale.
- Making sure the project goes as planned and executing tasks from the project manager.

4. Change Management Team

- Prepare an impact statement to give other team members an idea of what they can expect during the project.
- Work closely with members of staff to achieve a smooth transition.
- Keep the project on track so that a return on investment can be achieved sooner rather than later.



Budget & ROI

Consultancy: INR 25lacs

Hardware: INR 20Lacs

Software and Training: INR 30lacs

Project Team: INR 15lacs

Other: INR 10lacs

One of the many local shoe manufacturers, JQR is implementing ERP for the first time at this scale, a consultant must be hired. Hardware includes computers, server, and other connected devices. Many computers and other associated devices, in addition to additional accessories, are needed. Specialist trainers will be training our employees. The project team is made up of the company's 30-40 employees as well as the owner and consultant. Others include miscellaneous expenditure.

Expected increase in warehouse efficiency = 20% Expected increase in efficiency in production= 10% Expected increase in labour work distribution= 25% Expected increase in sales and distribution = 10% Net ROI Expected 17.5%

Project Plan Of ERP-

<https://drive.google.com/file/d/1q4SzE0R1fBwu8Z4bYW8P6Hc4EZphhoyQ/view?usp=sharing>



Request For Proposal

Link to RFP -

https://docs.google.com/document/d/1zly4SjR_3PKWoV_l66hZBGkLvy4P3FwqeMScQ6qTpE/edit?usp=sharing



Thank You !