BRASS Consulting Report

Business Process Understanding & Readiness assessment for ERP

18th December 2014

Affordable Business Solutions

Submitted to:

VINYAS INNOVATIVE TECHNOLIGIES Pvt. Ltd.

Plot No: 19, 3rd Phase,  
Koorgalli Industrial Area,  
Mysuru – 570 018.  
Karnataka, India.

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## VISIT LOG:

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# Brief about Vinyas Innovative Technologies Private Limited

Established in 2001, Vinyas Innovative Technologies Pvt. Ltd (Vinyas) is an emerging player in Electronic Manufacturing Services Industry catering to global Original Equipment Manufacturers and Original Design Manufacturers in Electronic Industry.

Vinyas is a leading provider of complete manufacturing services ranging from Printed Circuit Assembly to Complete System Integration and Box Build.

Vinyas is identified as a game changer in the Electronic Manufacturing Services segment for its innovative and in-house path breaking solutions to complex manufacturing issues of the OEMs and ODMs. Vinyas is identified as key player in supply chain of these OEMs& ODMs. Vinyas ability to create customer specific solutions to meet the specific business needs has been made them to be seen as customers’ key partner.  In the process, Vinyas establishes Global Network of Suppliers of Components in Electronic Industry creating an advantage to the OEMs to outsource the entire inventory and play a role to facilitate major global suppliers to serve Indian market on the other.

Vinyas has two manufacturing units, both located in Mysore, Industrial area. One is 100 % EOU (Export Oriented Unit) but belongs to the same legal entity.

The entity has four divisions in operations:

1. 100 % EOU - Contributing nearly 70% of the turnover.
2. Job work / Sub-contracting – Contributing 10 % of the turnover.
3. High Level Bye (Bulk Manufacturing) – Contributing to 20 % of the turnover.
4. Trading – Contributing nearly 1 % of the turnover.

All financial reporting should be done as per the above stated divisions separately.

The Turnover achieved last year (2013-14) was – Rs. 108 Crores and the projection for next two financial years are Rs. 174 Crores and Rs. 198 Crores respectively.

The company has a workforce of around 900 well trained employees to produce quality products for it’s’ customers.

Customers belonging to the following segments use the services of Vinyas:

Aerospace, Automotive, Consumer goods manufacturers, Defense & Military, Medical, Embedded, Power, Telecommunication

## Department-wise Number of personnel (Permanent):

|  |  |  |
| --- | --- | --- |
| **S. No.** | **Department** | **Manpower Strength** |
| 1 | Production | 754 |
| 2 | Quality | 60 |
| 3 | Stores | 25 |
| 4 | Accounts | 14 |
| 5 | SCM | 10 |
| 6 | Maintenance | 10 |
| 7 | Marketing | 4 |
| 8 | HR & Admin | 6 |
| 9 | Transport | 6 |

# Readiness Index

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No** | **Parameters** | **Weightage** | **Rating %** | **Weighted Score** |
| 1 | Master Data Management | 30 | 56 | 17 |
| 2 | [I.T. Infrastructure](file:///D:\srini\ABS\VinyasIT\Digital_Assessment.xls#IT!A1) | 5 | 75 | 4 |
| 3 | [Employee Skill Inventory](file:///D:\srini\ABS\VinyasIT\Digital_Assessment.xls#ESI!A1) | 15 | 82 | 12 |
| 4 | [Change Management](file:///D:\srini\ABS\VinyasIT\Digital_Assessment.xls#CM!A1) | 30 | 86 | 26 |
| 5 | [Business Analytics](file:///D:\srini\ABS\VinyasIT\Digital_Assessment.xls#BA!A1) | 5 | 43 | 2 |
| 6 | [Business Process Discovery](file:///D:\srini\ABS\VinyasIT\Digital_Assessment.xls#BPD!A1) | 15 | 92 | 14 |
|  |  |  |  |  |
|  | **Overall %** | **100** |  | [**74.4**](mailto:=@sum(C3:C8)/600) |

# Overview on Business Process / Understanding

## Key Business Functions

* Supply Chain Management (SCM)
* Stores and Inventory
* Manufacturing and Quality
* Finance and Accounts

## Current systems in Operation

* Supply Chain Management (SCM) – Navision, Excel
  + Sales Quote to Sales Order - Excel
  + Item and BOM preparation - Excel
  + Purchase – Navision
  + Sales - Excel
  + Manufacturing (Status updating) - Excel
* Stores and Inventory – Navision, Excel
* Finance and Accounts – Tally, Excel
* Human Resources - Excel

## Operations

‘Make-To-Order’ Industry’s framework:



# Department wise Process Analysis

## Supply Chain Management (SCM)

Contributors: Mr. Shiva, Mr. Anand

The Sales Order types are of the following:

1. Prototype making
2. Bulk manufacturing
3. Sub-Contracting / Job Order
4. Trading

As in other EMS companies, at Vinyas too the department SCM plays a pivotal role in carrying out the following activities:

* Pre-Order cycle
  + Receipt of Customer Enquiry
  + Quote preparation
  + Negotiation with the Customer on Prices and delivery dates
  + Order Acceptance
* Procurement cycle
  + Vendor selection and Purchase rate negotiation
  + Purchase Order release
  + Status monitoring till the Items reaches the factory.
  + Payables position monitoring
* Manufacturing status monitoring and informing the Customer on the same.
* Payment follow-up with Customer

The following systems are being used:

* Pre-Order cycle - Excel
* Procurement cycle
  + Purchase Order release - Navision
  + Status monitoring till the Items reaches the factory. - Excel
  + Payables position monitoring – Excel
* Manufacturing status monitoring and informing the Customer on the same - Excel
* Payment follow-up with Customer – Excel.

Item code and BOM (Bill Of Materials) creation happens in SCM after the receipt of confirmed Sales Order from Customer.

In most of the cases, Customer Part Number is used as internal item code.

Because of the volume of the Items in BOM, the Sales Quote functionality of Navision is not being used; when the Customer confirms the order – at the Sales Order stage – Items and BOM gets created in Navision.

### ERP not covered areas / Requirements

* Enquiry / Sales Quote to Order cycle
* Status reports / views – Project-wise Purchase, Manufacturing, Receivables, Payables
* Sales Order - Production Order status
* Sales Analysis – Customer segment-wise / Period-wise, Part-wise – Qty. and Value
* Exceptional reporting / Trend Analysis
* Customer-wise / Project-wise - Contribution / Gross Profit analysis
* Sales Dashboards / Sales MIS

### Recommendations

It is recommended to use Navision’s Sales Quote in order to make Quote Analysis reports and Quote to Order conversion analysis from authentic source data.

Sales Quotes to have Financial approval before the same being submitted to the Customer and the Order Acceptance / contract also to have the approval of Finance; a cross functional team consisting members from Finance, Production and Quality can review the Quote before being sent to the Customer; this will promote sense of ownership across various functional departments.

On receiving the confirmed Purchase Order from the Customer, SCM needs to enter the same as Sales Order / convert the Sales quote into a Sales Order and create a Production Order in the system for further processing, reporting and tracking.

### Pre-Sales Flow (As-Is)



**SCM – has capable Sales and Technical personnel who perform the required tasks.**

### Pre-Sales Flow (To-Be)



**Bid Cell / Cross functional Team – consists of members from Sales, Production, Quality and Finance**

Sales Quotes to have Financial approval before the same being submitted to the Customer and the Order Acceptance / contract also to have the approval of Finance; a cross functional team consisting members from Finance, Production and Quality can review the Quote before being sent to the Customer; this will promote sense of ownership across various functional departments.

### Sales Order to Production Order Flow (To-Be)



**Two conditions are to be passed in order to release, print and send Production Orders:**

1. All the Raw materials (BOM Items) required for at least one batch of Production should be available.
2. Engineering Readiness / Technical readiness should be approved by Production.

Engineering Readiness – Any technical settings / specific tools that are required for production. These pre-requisites have to be ready in production floor before production starts.

These conditions ensure a. Eliminating needless loading the production with Production Orders and b. smooth passage of Production Orders through all the steps of production.

### Production Order Flow (To-Be)



Tracking Rejection and Re-work with each Production Order and entering production quantities ensures complete traceability and accountability.

## Stores and Inventory

Contributor : Mr. Nagaraj, Mr. Vishwanath

Receipt of Items from Vendors (against Purchase Orders) and Customers (against Job Work orders) are done.

Internal Quality Check (IQC) is done and storage is done in Bins.

Kitting is done – as per the production schedule - and the Kits are issued to production - against Material Request from Production. (Kit – A set of components (BOM) – required making one FG)

GRN is done in Navision.

### New functionality requirements (To be covered in ERP)- Stores:

* Visibility of stock – across the department should be made possible.
* Item Tracking based on expiry date of Items; a report showing the Items that are going-to-be expired in next ‘N’ number of days. (for Items having shelf life)
* Usage of Bin location / Bin No. to be made possible in ERP.
* Sticker Printing after IQC to place the Items in Bin.
* Usage of safety stock level; alert report to list Items which are below / nearing safety stock level.
* Outstanding Purchase Order view / report to be made available.
* Provision to record Lot Number / Batch Number, Manufactured Date, Expiry period with Items (wherever applicable).
* MRN (Material Requisition Slip) from production and other departments is to be made from ERP
* Searching for Items – to be made easy by having Location Tag / Bin Number against the Item.
* Month-End reporting of stock at Sub-Contractor’s location has to be accurate to arrive at stock value.
* Provision to enter data on physical verification, pass positive and negative entries to tally the system stock with physical stock should be available.

## Accounting & Finance

Contributor: Mr. Dutt, Mr. Rajneesh

Presently, all the accounting transactions are covered in Tally ERP 9 system.

### Activities covered in Tally

* Cash and Bank transactions with Bank Reconciliation
* Accounting department handles all statutory reporting, and accounting activities. (Excepting PF and ESI – this is handled by HR)
* Statutory Reporting covered are – Excise, TDS, Sales Tax (VAT & CST) and Service Tax.
* Sales and Purchase Invoice accounting done.
* Statement of Accounts to Vendors, Customers taken from Tally and mailed.
* Receivables and Payables – Aged Accounting reports are being taken from Tally.
* BRS for Bank Accounts are handled in Tally.
* Monthly Books of accounts – P & L is taken.
* Purchase Invoice accounting, Payable reporting with Vendor Ageing
* Sales Invoice accounting, Receivable reporting with Customer Ageing
* Accounting of Debit Notes and Credit Notes
* General Journal accounting
* Statutory Reporting covered are – Excise, TDS, Sales Tax (KSGST & CST) and Service Tax.
* Monthly Books of accounts – Trial Balance, P & L is taken.

### ERP requirement

* All the activities listed above – covered in Tally – have to be covered in ERP.
* Division-wise P & L
* Project-wise P & L
* Budget vs Actual reporting
* Proper Inventory cost accounting with ability to arrive at landed cost of Items accurately. (with 70 % of Purchase items are imports, this is essential)
* Inventory of WIP stock should be made available
* Fixed Assets – Not computerized; required to be integrated with Accounting in ERP.
* In case of exports, Sales Invoice-wise expenses incurred have to be allocated properly to get the exact cost incurred for each consignment to arrive at near accurate customer-wise / product-wise profit.
* Stock valuation Report is essential – RM, WIP, FG – Month-end valuation is necessary.
* Expense Budgets – Department-wise – Not in use as of now but required in new ERP.
* Item category-wise Purchase Accounts are needed as follows:
* Import Purchases – Capital Goods, Parts & Accessories, Raw Materials, Chemicals, Inks, Packing Materials
* Local Purchases – Capital Goods, Parts & Accessories, Raw Materials, Chemicals, Inks, Consumables, Packing Material.
* Import Purchase Costing – To consider related expenses to allot to Items to arrive at exact landed cost.
* Amount of Duty outflow – Summary and detailed listing report is required once PO gets released; this will enable Finance to arrange finance in time.
* C-Form – Pending from Customers report is needed and provision to update the same against Sales Invoice is needed.
* C-Form – Issued to Vendors and pending to be issued – report is needed.
* Bank L/C Tracking has to be made possible in ERP.
* In order to track and avail Export incentive from Govt., a report that links Sales Invoice data with Shipping Bill data and Incentive availed or not has to be provided.

# MIS / Reports

## Marketing reports

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Department** | **MIS - Statistics** | **MIS - Exceptional Reporting** |
| 1 | Sales & Marketing | Target VS Actuals: Zone-wise, FG-Type-wise Qty. and Value - Month-wise | Enquiries NOT converted into Orders and reason thereof. |
| 2 | Sales & Marketing | On-line status of Orders VS Delivery - Zone-wise, FG-Type-wise, Month-wise-Qty. and value | On-Line status of Delayed Orders |
| 3 | Sales & Marketing |  | List of Items / FG's non-moving for more than ‘N’ Months. |
| 4 | Sales & Marketing | Zone-wise / Product Type-wise / Customer Segment-wise - Monthly - Quote vs. Orders Materialized, % of Success, Reason-wise % of Unsuccessful Quotes |  |
| 5 | Sales & Marketing | Overall / Zone-wise / Customer-wise / Product Type-wise / Application-wise - Monthly - Price Point analysis |  |
| 6 | Sales & Marketing | Overall / Zone-wise / Product Type-wise / Application-wise - Period-wise (M, Q, HY, Y) - Top 20 Customers |  |
| 7 | Sales & Marketing | Overall / Zone-wise / Product Type-wise / Application-wise - Period-wise (M, Q, HY, Y) - Bottom 20 Customers |  |
| 8 | Sales & Marketing | Overall / Zone-wise / Product type-wise / Application-wise, Period-wise (M, Q, HY, Y) - % of Repeat Orders, New Products |  |
| 9 | Sales & Marketing | Segment-wise, Customer-wise – Forecast vs Actual of Order Status |  |
| 10 | Sales & Marketing | Zone-wise, Customer-wise, Previous Year(s) Sales vs Current Year Sales – Qty., Average Price, Average Lead Time, # of Orders below MOQ |  |

## PPC (SCM) Reports

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Department** | **MIS - Statistics** | **MIS - Exceptional Reporting** |
| 1 | Production Planning | On-line status tracking of Jobs | Jobs not moving for last 24 Hours, Jobs with Re-work, Jobs with Rejection |
| 2 | Production Planning |  | Jobs likely to be delayed |
| 3 | Production Planning |  | Process where Load is more than the capacity |
| 4 | Production Planning | Overall / Zone-wise / Customer-wise / Product Type-wise / Monthly - % of Orders delivered On-Time, 1-10 Days Delay, 11-30 Days Delay, Above-30 Days Delay |  |
| 5 | Production Planning | Overall / Zone-wise / Customer-wise, Order-wise - Going to be delayed Production Orders. |  |
| 6 | Production Planning | Overall / Zone-wise / Customer-wise, Order-wise-Processing Completed & last 3 processes are pending. |  |
| 7 | Production Planning | No Movement Orders - No output recorded past 24 Hours. |  |
| 8 | Production Planning | List of Re-work Production Orders & list of Re-work Orders s NOT executed ffor past 24 Hours. |  |

## Manufacturing Reports

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Department** | **MIS – Statistics** | **MIS - Exceptional Reporting** |
| 1 | Manufacturing |  | Visibility of Process-wise list of Jobs pending |
| 2 | Manufacturing |  | Re-Work Job Cards NOT closed within 24 Hours with process name. |
| 4 | Manufacturing | Current Day, 3 + Days (Next 3 Days) - On-Line Load Monitor View - for every Process |  |
| 5 | Manufacturing | Period-wise, Process-wise - Rejection, Re-work distribution on reason. |  |
| 5 | Manufacturing | On-line status of Sales Orders Released but Production Orders NOT yet released. |  |

## accounting Reports

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Department** | **MIS – Statistics** | **MIS - Exceptional Reporting** |
| 1 | Accounting |  | On-line list of Items waiting for Inspection be available. |
| 2 | Accounting |  | Zone-wise / Product Type-wise / Segment-wise / Project-wise /Period-wise - Cost vs Sales Value - GP |
| 5 | Accounting |  | Zone-wise / Product Type-wise / Application-wise - Period-wise – Project-wise - GP (In Descending Order of GP) |

## Purchase (SCM) Reports

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S. No.** | **Department** | **New functionalities / features required** | **MIS - Statistics** | **MIS - Exceptional Reporting** |
| 1 | Purchase |  | Visibility of stock, Average consumption of 3 Months, Minimum Stock Level - To be available on-line and be made available to all Dept. Heads |  |
| 2 | Purchase |  | On-line View / Report | List of Items due for Ordering |
| 3 | Purchase |  | On-line View / Report | List of Items delayed. |
| 4 | Purchase | Data Analysis | Purchase cost movement report - Period-wise Cost of Items - Category-wise (RM, PM, Chemicals, etc.) |  |
| 5 | Purchase | Data Analysis | Vendor evaluation based on Delivery, Quality and Cost. |  |
| 6 | Purchase | Report |  | List of Items short supplied. |
| 7 | Purchase | Report |  | Purchase Type-wise, Item Classification-wise – Period-wise Purchase Value & differences between past period. |

## Stores Reports

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Department** | **MIS - Statistics** | **MIS - Exceptional Reporting** |
| 1 | Stores |  | On-line list Items with Batch No / Lot Number that are going to be expired in next 30 Days be made available. |
| 2 | Stores | Period-wise-Item Category-wise Stock Value |  |
| 3 | Stores | Item Category-wise - ABC Analysis reporting |  |
| 4 | Stores |  | Based on movement and safety stock level, Items going out of stock status. |