

32558 Business Intelligence

Assignment 1: BI Analysis

Task 1: Industry and Why? (word limit range/guideline: 50 - 100)

The industry that I have chosen is Supply Chain Management because recently I was working in an electrical manufacturing company named Rojone Private Limited, Ingleburn as an Inventory management assistant and I am keen to research how Business Intelligence plays a role in supply chain management.

Firstly, definition of Supply Chain Management is integration, process-oriented design, planning and control of goods, information, and cash flows across the entire value chain from raw-material suppliers to end-users with the aim of (Kurbel 2016):

- Customer orientation improvement
- Synchronizing supply with demand
- Making the production more flexible and responsive to the demand
- Inventory downsizing along the value chain

Task 2: Scope and Boundary (word limit range/guideline: 50 - 100)

The scope of this Business Intelligence analysis report is to focus on the business intelligence applied in the field of supply chain management. Supply chain management is a vast topic but this report will dig in deep for the tools and techniques applied in the five business functions mentioned in the next section.

Task 3: Elaborate business functions (word limit range/guideline: 150 - 200)

A broad overview of business functions in supply chain management is depicted in the following figure 1:

A MODEL OF SUPPLY CHAIN MANAGEMENT

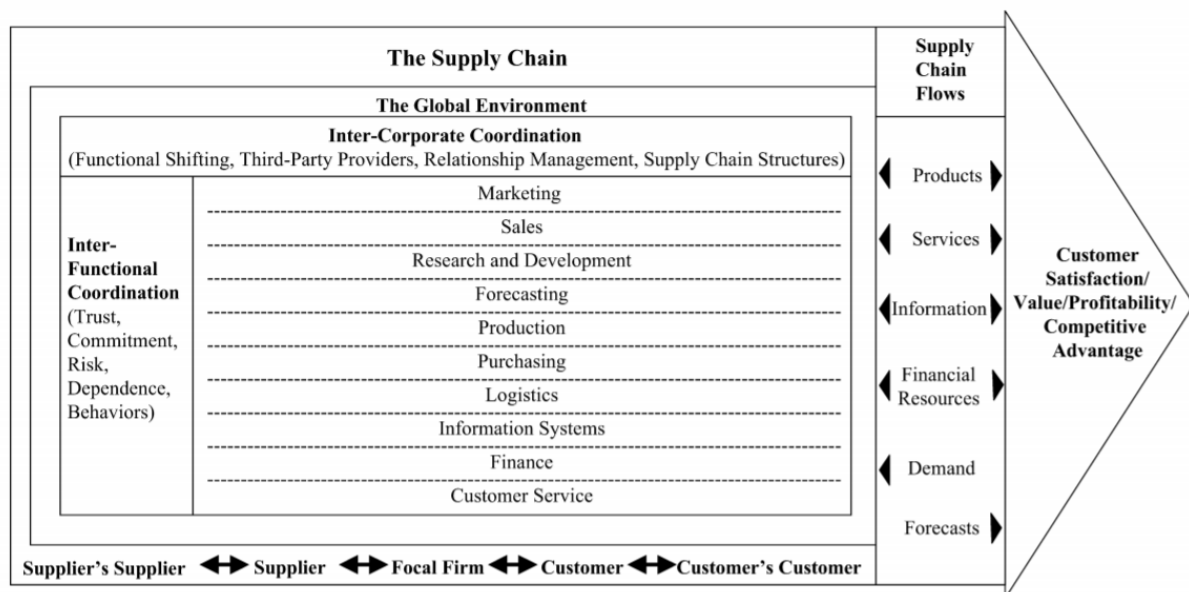


Figure 1(Mentzer et al. 2001)

But, the global supply chain management constitutes five primary functions:

1. Purchasing

It consists procuring raw materials and other resources required to manufacture goods which requires coordination with suppliers to deliver the materials without any delays(Team 2018).

2. Operations

Operations plays a critical role in supply chain management. It takes care of demand planning and forecasting. It directly affects the business finance(Team 2018).

3. Logistics

Logistics requires tremendous coordination. Suppose the manufacturing of products has started and requires space until shipment. This needs local warehouse arrangements. Now let's say we want to deliver products outside the city, state or country limits. Hence, we need transportation and outstation warehouses. Therefore, Logistics ensures that products reach the end-point delivery without any glitches(Team 2018).

4. Resource Management

Production resources comprises of raw materials, technology, time and labour. Allocation of resources in the right activity at the right time to optimize the production at reduced costs is managed by resource management team. (Team 2018).

5. Information Workflow

'Information sharing, and distribution is what really keeps all other functions of supply chain management on track. If the information workflow and communication are poor, it could break apart the entire chain and lead to mismanagement'(Team 2018).

Task 4: Possible scenarios from those business functions that BI can be helpful (word limit range/guideline: 200 - 300)

BI can be used in all the above-mentioned business functions.

Companies like Boeing Aircraft, EMC Corp., Intel and Dell faced problem in inventory management due to not having correct prediction and analysis of demand and supply in place.

Let's dig in deep by knowing the scenario of EMC Corp which is the now known as Dell EMC. 'EMC Corp. missed its revenue guidance of \$2.66 billion for the second quarter of 2006 by around \$100 million, and said the discrepancy was due to higher than expected orders for the new DMX-3 systems over the DMX-2, which resulted in an inventory snafu'(Sell 1999). This example involves business functions:

1. Purchasing: Issue for not purchasing raw material and resources. Also, missing the revenue guidance.
2. Logistics: Issue for not delivering the finished products.
3. Operational: Not analysing demands properly and performing poor predictions.
4. Resource management: Not managing raw materials, technology, time and labour to deliver product orders. A good resource management can handle unpredictable orders if in place.
5. Information workflow: Issue in information flow as change occurrence in the demand and supply was not alerted to the workforce of the company.

To solve this problem BI can be used by addressing all the mentioned business functions.

Task 5 & 6: Existing use of Business Intelligence and How it is helping for the topic (word limit range/guideline: 400-600)

Following are the examples of existing Business Intelligence used to solve the issues relating to the business function involved in supply chain management:

1. 'Analytical Customer Relationship Management (CRM) consolidates the data from operational CRM and uses analytical techniques to examine customer behavior; identify buying patterns; create segments for targeted marketing; identify opportunities for cross selling, upselling, and bundling; and separate profitable and unprofitable customers. This is done with business intelligence techniques such as OLAP (online analytical processing) and data mining, based on a data warehouse' (Howson 2007)

2. SAP ERP is an enterprise resource planning software developed by SAP SE, a German company. It provides financial, operational and workforce analytical business intelligence solutions which can highly benefit the supply chain management. The following are the explanation of the analytical abilities SAP ERP offers:

i. Financial analytics helps increase in the sales and revenue along with decreasing capital investment and operational cost and improving business processes. This is done with the help of financial analytics for analyzing financial processes, financial and managerial reports and financial budgets to generate forecasts (Kurbel 2016).

ii. Operational analytics is the most vital and large from the three analytics. It takes the authority for analyzing and enhancing the business processes and firm's current operations. Available analytics capabilities include inventory and warehouse management analytics, procurement analytics, manufacturing analytics, sales analytics, customer service analytics, transportation analytics, program and project management analytics, performance and quality management analytics and enterprise asset analytics (Kurbel 2016).

iii. Workforce analytics is responsible for aligning company's strategic direction into activities of all the employees and organizational units of the firm. To fulfill this purpose, a range of abilities for workforce planning, analyzing workforce processes (e.g. payroll), cost planning, simulation, benchmarking is offered (Kurbel 2016).

3. Real time business intelligence

Real time business intelligence (RTBI) is a term defining the process of delivering information or business intelligence (BI) about business operations with zero latency which means delivering information in a range from a few seconds to milliseconds after the business event (contributors 2018). 'Real time BI compares current business events with historical patterns to detect problems or opportunities automatically. This automated analysis capability enables corrective actions to be initiated and or business rules to be adjusted to optimize business processes' (B.S. & Jayanthi 2008). Real time BI helps in shaping the important business decisions in an operational business function of a firm and provide prompt alerts and actions to provide information to the workflow of a company for change required by future predictions important for supply chain management.

Example, World's leading companies, small companies and even supply chain companies like FleetEffect, Glen Cameron uses real time BI dashboards to effectively and efficiently run the supply chain management of the company.

Task 7: Other possible use of BI and outcomes in the topic (word limit range/guideline: 150 - 200)

Business Intelligence in supply chain management helps to optimize supply chain by drawing

out actionable information from a heap of data and provide the right information in the hands of right people at the right time in the right form which is extremely important in this ever-changing world. Future Business Intelligence should improve more upon making complex predictions which works like human-mind but is out of reach of a simple human prediction. For example, as the climate keeps changing and, in the future, it is said it will change rapidly. Hence, climate change prediction for supply chain logistics should be created. Even, digitalizing inventory, supplier engagement and assessment can be done for the future (BSR 2017). Additionally, IOT should also come in practice to change the future of supply chain management. Hence, ERP and CRM integration with BI has improved operational business function of supply chain and real-time dashboards have also improved in information workflow but there is a future development needed in the logistic business function in supply chain management.

References

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