

Databases and the edge for FreshDirect

Case duration (Min): **45-60**

Management Information Systems (MIS)

Databases and data warehouses**Electronic Commerce****Worldwide****Case summary:**

This case may be approached from either a general business perspective (the user) or from the technical perspective (the database developer/ information manager).

The case film clips are not technical but present the context for more technical discussion if required.

This case focuses on the use (importance) of corporate databases (and their data/information), particularly in support of primary activities, the organizational goals and generating revenue/advantage.

Learning objectives:

Explain the main advantages of the database approach to business - discuss why databases are valuable assets for the organization - especially in support of e-commerce and e-business

Case problem:

Through the case of a large online grocer, explores how the business plan is enabled through database technologies.

Grocery Stores

Company

FreshDirect

<http://www.freshdirect.com/about/index.jsp>

Founded in 1999, FreshDirect, an online grocer offering next-day delivery, sell fresh food, plus popular grocery brands for up to 25% less than supermarket prices and deliver right to customer doors. The edge for FreshDirect, says CEO Braddock, is its extensive database where it can gather more information about shopping patterns and behaviour than a traditional bricks-and-mortar grocery store. Introduced to the New York market in 2002, FreshDirect became popular for its convenience, fresh food and prices which were lower than many Manhattan supermarkets. With over 2000 employees, the company custom-prepares groceries and meals for its customers, a manufacturing practice called 'Just in Time' that reduces waste and improves quality and freshness. Food comes directly from farms, dairies and fisheries (not middlemen), so it is several days fresher and a lot less expensive. FreshDirect uses SAP software to process thousands of orders placed on its website every night. Orders are dispatched to the kitchen, bakery, deli as well as fresh storage rooms, produce ripening rooms and production areas within the company's refrigerated facility. The company's core mission is to change customers' lives by giving them a superior on-line shopping experience. This is enabled through a customer database - the company records details each time a customer shops on their site, such as every unit bought during those visits, and all service interactions. Along with the corporate culture, this leads to a strong customer focus. Additional customer focus is achieved through frequent customer surveys. Information is at the core of their operations. This is enabled through investment in technology infrastructure. FreshDirect replaced legacy systems with Oracle Database and Oracle Real Application Clusters, running on servers to support mission-critical applications, including customer relationship management, delivery administration, store-front, payment processing, and business intelligence. This has enabled several customer relationship initiatives such as: (1) Favourites - FreshDirect have in their database each customer's entire shopping history. As the customer completes an online visit, several additional selected items are suggested, which are items the customer bought frequently in the past but not on this visit. 20% of customers are influenced by this and buy two more items, which is a 10% increase in their average order size. (2) FreshDirect also have, "You Might Also Like" (YMAL) otherwise known as cross-selling, where FreshDirect suggest various items customers might like to order to accompany an item in their cart. FreshDirect use their database to suggest six items that customers have purchased alongside the featured item - such as steak with steak sauce and potatoes. This feature, in addition to favourites, contributes 5% of total revenue. These are examples of using rich customer data, real-time, to enhance the customer experience. Through this and similar steps, FreshDirect have driven the percentage of business done by loyal customers from approximately 25% to approximately 60% of total sales. The result of this is a satisfied customer and, more revenue for FreshDirect. FreshDirect recognise that it is cheaper and more effective to make current customers more loyal than to spend money attracting new customers. The company is expanding rapidly.

Pre class activities...

1 FreshDirect

45-60

Students should briefly investigate the case company (products, business model, operations, advantages) through the website <http://www.freshdirect.com/about/index.jsp>

Bring research (and possibly a brief presentation) to class

First, if you are taking a taught management course then consult with your tutor and ensure that the case has not been scheduled into a teaching class or tutorial. If it has not:

1. Play/ read the media associated with the case. You may need to access the Internet and enter a URL to locate any video clips.

2. Attempt the Case study questions.

Consider attempting the case study as a group exercise; you could form a study group with fellow students.

3. Check the suggested answers - remember these are suggestions only and there are often many possible answers.

Discuss questions and answers with other students.

4. If you feel your answer(s) were weak then consider reading the relevant suggested readings again (also see the case study suggested references).

Title/
Media type

URL/ Media description

FreshDirect's Game Plan

http://feedroom.businessweek.com/?fr_story=9e3d9c4baa4c87ab447d195fe019602addde1523&rf=bm

Film

FreshDirect CEO Richard Braddock discusses the online grocer, outlining the business plan and how it is enabled through database technologies.

An Appetizing Plan?

http://feedroom.businessweek.com/?fr_story=defe6098c59957094ad6713fc809d50c26c2bf5a&rf=bm

Film

Stern School of Business Professor Russ Winer offers insights into FreshDirect's business plan. He acknowledges sources of success such as the consumer database which enables the company to understand customer needs and stimulate sales.

NOTES:

Case study questions...

Action	Pre/During/After class
1 COMPETITIVE ENVIRONMENT From a strategic perspective, how would you classify the competitive environment and strategies of FreshDirect – how important is cost/price, differentiation etc?	During
2 USING DATABASE TECHNOLOGIES How is FreshDirect using database technologies to differentiate itself and be innovative? The CEO states the company wants to be “innovative not simply duplicative”. Critically assess the degree to which the company is exercising innovation. Can FreshDirect get a competitive advantage from the use of database technologies?	During
3 DATABASE TECHNOLOGIES TO SUPPORT E-COMMERCE Describe how FreshDirect is using database technologies to give direct support to its e-commerce business model.	During
4 BENEFITING CUSTOMERS Consider matters from the customer perspective. What benefits do they receive as a result of the way FreshDirect uses database technologies? How does FreshDirect utilise its information resources to benefit customers?	During
5 OPPORTUNITIES FOR FRESHDIRECT TO CONSIDER Building upon your answer to the previous question, synthesise further suggestions/ opportunities for FreshDirect to consider i.e. what else could they be doing/ how might they use the technologies to add more value?	During
6 ENABLE FRESHDIRECT OPTIONAL – discuss how (from a technical perspective) you might enable FreshDirect to meet such challenges	During
7 FRESHDIRECT A SUCCESS? Brainstorm and summarise the factors making FreshDirect a success	During
8 CHALLENGES FOR FRESHDIRECT Ross Winer identifies challenges for FreshDirect: keeping costs down and sales up – discuss how database technologies are helping with such challenges	During

Answers...

DATABASE

A database can be defined as a collection of related information. The information held in the database is stored in an organized way so that specific items can be selected and retrieved quickly. See database management system.

DATA

Stored representations of objects and events that have meaning and importance in the user's environment.

INFORMATION

Data that have been shaped into a form that is meaningful and useful to human beings.

DATABASE MANAGEMENT APPROACH

An approach to the storage and processing of data in which independent files are consolidated into a common pool or database of records available to different application programs and end users for processing and data retrieval.

RELATIONAL DATABASE

A database that represents data as a collection of tables in which all data relationships are represented by common values in related tables.

DATA WAREHOUSE

A database, with reporting and query tools, that stores current and historical data extracted from various operational systems and consolidated for management reporting and analysis.

DATABASE MANAGEMENT SYSTEM

a suite of computer software providing the interface between users and a database for databases

Question/ Answer

1 Competitive environment

From a strategic perspective, how would you classify the competitive environment and strategies of FreshDirect – how important is cost/price, differentiation etc?

Whilst there may be some price sensitivity in the marketplace, FreshDirect focus on the customer who needs convenience and is prepared to pay a premium for it. They may, through their use of technology, be described as differentiated without premium price.

This is important as it helps target the utilisation of technologies to achieve their goals.

2 Using database technologies

How is FreshDirect using database technologies to differentiate itself and be innovative? The CEO states the company wants to be “innovative not simply duplicative”. Critically assess the degree to which the company is exercising innovation. Can FreshDirect get a competitive advantage from the use of database technologies?

FreshDirect is using database technologies to make its operations more cost effective and responsive and to improve marketing and sales through stimulating repeat purchases and cross selling. Whilst FreshDirect's database technology use may be innovative within their market, the company is not doing anything particularly new. Drawing on the arguments associated with sustainable competitive advantage and the resource based view, we could argue that FreshDirect's use of databases alone, would not provide them with a sustainable advantage as it would be relatively easy for a competitor to duplicate their initiative – FreshDirect systems are ‘open’ and acquired off-the-shelf. However, the knowledge from the data in their systems does become an asset which cannot be duplicated and may lock-in customers. Furthermore, the integration of technologies with structure and culture may make them harder to copy.

3 Database technologies to support e-commerce

Describe how FreshDirect is using database technologies to give direct support to its e-commerce business model.

Students may reference the value chain/ system/ configuration to structure answers. Discuss online order-taking (data collection); systems integration – enterprise systems that facilitate operations i.e. the data is available to all roles involved in primary activities (procurement, order picking, packaging, delivery etc) and marketing/sales (reminders and cross-selling).

4 Benefiting customers

Consider matters from the customer perspective. What benefits do they receive as a result of the way FreshDirect uses database technologies?

How does FreshDirect utilise its information resources to benefit customers?

Benefits: responsiveness, convenience, cost and differentiation through suggested meals ('assembled' products) and reminders/ suggestions

5 Opportunities for FreshDirect to consider

Building upon your answer to the previous question, synthesise further suggestions/ opportunities for FreshDirect to consider i.e. what else could they be doing/ how might they use the technologies to add more value?

consider loyalty programmes, data mining, supply chain integration etc

6 Enable FreshDirect

OPTIONAL – discuss how (from a technical perspective) you might enable FreshDirect to meet such challenges

7 FreshDirect a success?

Brainstorm and summarise the factors making FreshDirect a success

this acts as a stepping stone to the second film clip which can be used to explore possible answers: business model, senior manager knowledge, customer population density and delivery costs, product differentiation, operations, marketing

Challenges for FreshDirect

Ross Winer identifies challenges for FreshDirect: keeping costs down and sales up – discuss how database technologies are helping with such challenges

Costs down through supply chain integration and disintermediation, less waste through JIT, low transaction costs through the internet; low data entry costs, less costs associated with data duplication, reminders, cross selling etc

Case study references

Cole, G A. and Kelly, P P. (2011) 'Management Theory and Practice', Ed. 7. Cengage EMEA.

Kahan, R. (1998) 'Using database marketing techniques to enhance your one-to-one marketing initiatives', The Journal of Consumer Marketing Santa Barbara, 15 (5), p. 491 - 493.

Kelly, P P. (2009) 'International Business and Management', Cengage Learning EMEA.

Porter, M E. and Millar, V E. (1985) 'How information gives you a competitive advantage.', Harvard Business Review, July-August 63, p. 149 - 174.

Rob, P. and Coronel, C. (2007) 'Database Systems', Ed. 7. Thomson.

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