

Business Intelligence Modeling for Increasing Company Value and Competitive Advantage in Franchise Business

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Abstract

The impacts of franchise business to the economic are proven globally. In order to increase the company value the company value and to keep competitive, companies need to understand the customers and its business environment. The impact of information system is proven that give positive impact to companies. Business intelligence in franchise companies is not a new issue, but mostly the application relate to the business as a unit of the whole company not the whole company itself. There are franchisors and franchisees should be considerate in designing franchise business intelligence model.

Keywords: Business Intelligence, Data Mining, Franchise Business

1. Introduction

The impacts of franchise business to the economic are proven globally. Both franchisor and franchisee have to increase their company value to the customers which at the end will give the automatic-impact to the company itself. In order to increase the company value the company value and to keep competitive, companies need to understand the customers and its business environment.

The using of business intelligence in franchise companies are also gives positive impacts to both franchisor and franchisee.

Table 1: Franchise Business Economic Outlook, 2013. December 2012 Forecast [1]

	Establishments		Employment		Output (\$Billions)	
	Amount	Percent Change Over Previous Year	Amount	Percent Change Over Previous Year	Amount	Percent Change Over Previous Year
Automotive	30,526	0.7%	182,541	1.0%	38.23	1.9%
Business Services	93,581	1.9%	932,972	2.6%	148.88	3.9%
Commercial & Residential Serv.	91,925	1.8%	356,533	2.8%	53.37	6.5%
Lodging	25,911	1.5%	706,430	0.9%	79.76	4.2%
Personal Services	109,079	1.5%	662,284	2.0%	87.90	3.0%
Quick Service Restaurants	153,425	1.7%	3,693,134	2.2%	298.59	8.2%
Real Estate	87,691	1.6%	392,371	2.0%	49.47	6.3%
Retail Food	61,262	0.8%	490,515	1.5%	36.89	3.5%
Retail Products & Service	97,398	0.4%	498,370	1.2%	39.65	3.7%
Table/Full Service Restaurants	36,436	1.0%	1,056,908	2.2%	59.93	4.5%
Total	757,055	1.4%	8,282,658	2.0%	802	4.3%

Table 1. Shows the amount (in \$ Billions) of output generated by franchise from food and beverages (quick service restaurants, retail food and table/service restaurants) is the major contributor to franchise business in The United States (December 2012). It can be conclude that F&B sector in franchise industry are significant sector for franchise industry.

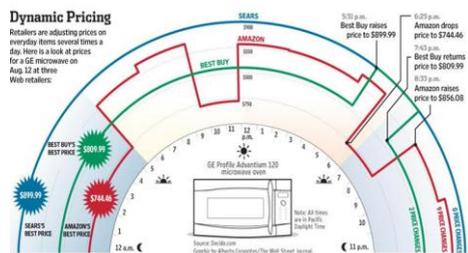


Fig. 1: Intra-day price Changes [2].

The “Franchise industry” means that franchise is not only as a business strategy or marketing channel, but the mature is the franchise the business not only selling the products or services, so the franchisor’s business is selling business not the products or services itself.

Global changes effect local changes and some time vice versa. Like or dislike the global changes in some other countries will effects in local environment. On the new information era, the using of internet cannot be ignored. For example, figure 1 shows dynamic pricing for a GE microwave on Augustus 2012 at three web retailers: Sears, Best Buy and Amazon. The price changes relate to time on those three webs shows that a real-time analysis of price will give significant decisions. The optimum collection of information will help company to be benefited from the analytic information.

2. Literature Review

In the 1960s Lane Furniture Company [3] used a unique analytical CRM (Customer Relationship Management) system to predict future sales of furniture. Lane's goal was to predict the overall level of sales of furniture in the U.S. market 6 months in advance. Through data mining on many industries that it purchased and obtained from publicly available sources, the company's statisticians (the data miners of their day) figured out that the strongest predictor of furniture sales 6 months in the future was the current month's national, regional, and local new car sales figures. The relationship was a negative one (i.e., the lower the car sales were for the current month, the higher furniture sales would be in 6 months). Armed with this analysis, Lane consistently made the right decisions on their furniture inventory and when to advertise to a receptive market. Lane used data from their CRM system, broadly defined,

as a predictive tool that gave it an "insight advantage" over their competitors.

Watson [4] define Business intelligence (BI) as a broad category of applications, technologies, and processes for gathering, storing, accessing, and analyzing data to help business users make better decisions. Not all BI initiatives are the same. For example, some focus on a single or a few applications, while others are designed to provide enterprise-wide BI.

BI refers to the process of extracting, transforming, managing and analyzing business data, in order to support decision making. This process is mainly based on large data sets, particularly data warehouse, with the mission of disseminating intelligence or knowledge across the whole organization, from strategic level to tactical and operational level. A typical BI process consists of five key stages [5]: (1) Data Sourcing, (2) Data Analysis (3) Situation Awareness, (4) Risk Assessment, and (5) Decision Support.

According to Watson [6], there are three BI targets can be identified: (1) The development of a single or few related BI applications. (2) The creation of infrastructure that supports current and future BI needs, and (3) organizational transformation where BI is used to fundamentally change how a company competes in the marketplace. They differ in terms of their focus; scope; level of sponsorship, commitment, and required resources; technical architecture; impact on personnel and business processes; and benefits.

The analytics are the core part of a BI system. Evelson et al [5] summarized BI analytics into eight categories based on a lab-based evaluation of popular BI tools on the market.

- Production/operational reporting for pixel-perfect mass report distribution.
- Ad hoc query tools provide a quick answer to a business question.

- OLAP tools, when business questions are more about “whys” than “whats”.
- Dashboards as an interactive, visual UI — not a reporting or analytical tool by itself.
- BAM will report on real-time data and process information streams.
- Predictive modeling answers questions about what’s likely to happen next.
- BI workspaces enable true end user self-service.
- Guided BI search tools support free form ad hoc queries and analysis.

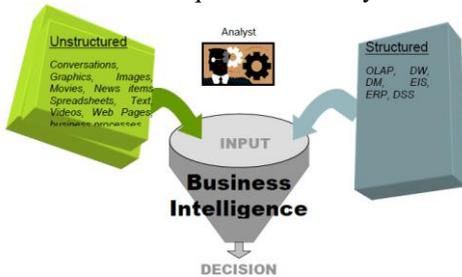


Fig. 2: Inputs to Business Intelligence Systems [7].

OLAP = On-Line Analytic Processing, DW=Data Warehouse, DM=Data Mining, EIS =Executive Information Systems, and ERP = Enterprise Requirement Planning.

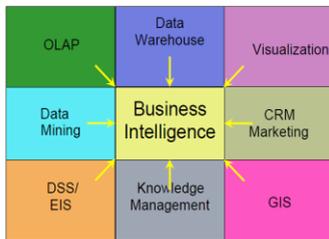


Fig. 3: BI Relation to Other Information Systems [7].

OLAP = On-Line Analytic Processing, DW=Data Warehouse, DM=Data Mining, EIS =Executive Information Systems, ERP = Enterprise Requirement Planning, CRM=customer relationship management, DSS= decision support systems, and GIS = geographic information systems

Figure 2 shows the sources of input data from structured and an unstructured data to be used in business intelligence.

Mostly structured data are easy to get and to process, but unstructured data nowadays are challenging to be collected, processed and used in data mining for business intelligence modeling. Both sources are important, but it depends on the objective of the companies of the analytic goals.

Figure 3 shows business intelligence relation to other information systems. It describes that business intelligence is composed by some systems depend on the needs of the model.

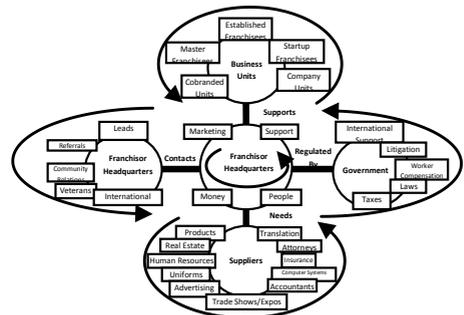


Fig. 4: Understanding how the franchisor works [8].

Figure 4 describe the relation among franchisor headquarters, business units, suppliers, prospective franchisee and governments. This relation is unique compare to a non-franchise business format. It is possible for franchisor to understand the franchisee because mostly franchisors have some business units. There are also franchisees who own the business units. From this figure we can see that franchisors have direct relation with government, suppliers, and customers as well as franchisee.

Compare to figure 4, figure 5 also shows the franchisee relation among Franchisor headquarters, suppliers, customers and government. There is some same link relation, but franchisors have key function to control all the business. The franchisees are really depending on franchisors.

According Hanuman [9], one effective way of gaining sustainable competitive advantage today is through maintaining close relationships with your customers, a process known as Customer Relationship Management (CRM). The closer you are with your customer, the better you understand his/ her needs and wants, the better you can plan how to satisfy them most efficiently. There is one basic rule not to forget: *“Without customers there is no business”*. CRM is a long term process guiding companies towards achieving high customer satisfaction, reduce customer complaints and increase sales per customer. CRM is linked to a wide range of stakeholders.

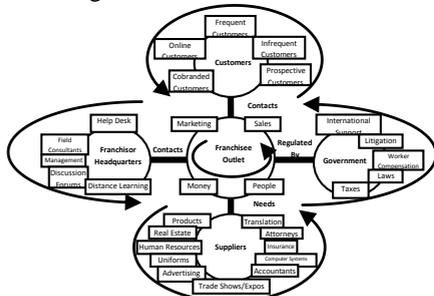


Fig. 5: Understanding how the franchisee works [8].

3. Method

Data mining is one part Business Intelligence whole processes.. The data mining process is driven by experimentation and experiences depend on the problem situation and the knowledge of the analyst. Business understanding is the key element of data mining process. If we want to make data mining a franchise business, it means that we have to understand the franchise business and the data created from both franchisees and franchisors.

4. Discussions

Franchisor will select and contact the prospective partners (prospective franchisees) to expand its business. The partner selection process is crucial to the success of franchising and requires exceptional attention. According Chen [8] the prospective franchisees can be contacted through: (1) leads from marketing channels; (2) referrals, such as satisfied customers; (3) consumers who feel affection to the product/service and would like to be in possession of the business; (4) community and media relationships; (5) public services, like recruiting veterans; and (6) international contacts generated from master franchisees. Furthermore, the franchisee selections relate to perspective franchisee profile.

Franchise suppliers can be anywhere from products and goods distributors up to business service providers, such as real estate agents, human resources providers, uniform vendors, marketing and advertising agents, trade show and exposition organizers, accountants, information systems vendors, insurance providers, attorneys, translators, and many others. Franchisors also need to comply with regulations that govern the sales of the franchises and business transactions in the places where the business located.

Same as the franchisor, the franchisee outlets work together with four entities: customers, franchisor headquarters, suppliers and government. According Chen [8], the franchisee customers are divided into five categories and consist of potential, infrequent, frequent, online, and co-branded. Supports from the franchisor headquarter may include demonstrations from field representatives, employee recruitments, training and continued education from the management groups, in addition to discussion forums and distance learning.

Suppliers of the franchisee are similar to those of the franchisor. They include

both products and goods distributors, business service providers such as real estate agents, human resources providers, uniform vendors, marketing and advertising agents, trade shows and exposition organizers, accountants, information systems vendors, insurance providers, attorneys, translators, and others. The franchisee is regulated by the franchising laws at local, state, and federal level. At this point, franchisee should not directly contact the suppliers, vendors marketing and advertising agents and others, franchisee should order everything through franchisor. It is not only about trade secret of the franchisor but also uniformity of the product or services and the bargaining power of buying.

Figure 6 shows a proposed generic business intelligence model for franchise companies. Legal and registration activity based on perspective franchisee that becomes franchisee. So, actually this part is marketing division of selling business unit/ outlet. Mostly this division is collaboration between marketing department and legal department.

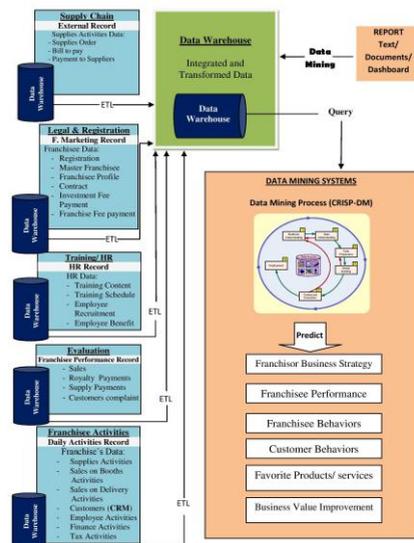


Fig. 6: Proposed Generic Business Intelligence Model for Franchise Companies.

The Human Resources Management (HRM) of franchisor mostly is the core HRM of all business units including the franchisee HRM. Franchisors have some criteria and Standard Operation Procedure (SOP) of recruiting procedure, training content, compensation/ employee benefit, payroll system and training scheduling. Beginner franchisee has no experiences and ability to recruit and train new employee. Furthermore, it should be understand that the employee of franchisee is the employee of franchisors. It will be the obligation of franchisee to following the franchisor regulation including the franchisee's employee. Franchisor should make evaluation of the franchisee performance, it relate to franchisee amount of Sales, royalty payments, supplies and customers complaints. From the performance evaluation, franchisor can detect the problem faced by the franchisees and help the franchisees. A good franchisee will cooperate with the franchisor to increase the company value that delivered to the customers.

The activities of franchisee actually are activities of franchisor business units/ outlets. So the daily activities are some kind like: supplies activities, sales on booths activities, sales on delivery activities, customers (CRM), employee activities, finance activities, tax activities. These activities will produce a large amount of data. These data can be data mined and analyzed to make prediction of problem and solution of daily activities.

After the ETL process, the data goes to system the data ware house where the process of data integration and transformation begin. Then, from the data warehouse, data goes to the data mining systems and the data mining process begin followed with the predictions of Franchisor Business Strategy, Franchisee Performance, Franchisee Behaviors, Customer Behaviors, Favorite Products/ services, and Business Value Improvement.

Sacu and Sprui [10] proposed business intelligence maturity stages and its characteristics were derived should be considered when evaluate business intelligence model. They decided that the business intelligence development model should comprise maturity stages: predefined reporting, data marts, enterprise-wide data warehouse, predictive analytics, operational business intelligence and business performance management (BPM). Further, after the implementation of business intelligence, there are should be a continuous improvement of the model.

5. Conclusion

As we discuss earlier, the business intelligence of franchise business is unique. "Unique" means that in franchise, by doing business intelligence for franchisor means that it also for the franchisee which is the business' owners are different but franchisees' business are also franchisor's business. It is significant different compare to non-franchise business.

The business intelligence is not only for the franchisor but also the franchisee. There are strong relation between franchisor and franchisee. The franchisee is depending on franchisor. Franchisees depend on the franchisor on doing business because the franchisor is the party who run the business at the beginning and sold the right of doing business using its intellectual property and know-how of doing business. The franchisor is the party who determine the main strategy and the direction of the business, so the franchisee is really depend on the franchisor. Business intelligence can be used to increase company value and company competitive advantage for the franchisor as well as the franchisee.

Business intelligence is bridging up the gap between the business objective and reality activities. Furthermore, business intelligence can be used to predict

franchisor business strategy, franchisee performance, franchisee behaviors, customer behaviors, favorite products/ services, and business value improvement.

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