

## DESIGNING THE SALES PROCESS IN RETAIL SHOPS BY AXIOMATIC DESIGN PRINCIPLES

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### ABSTRACT

Any successful business understands the importance of process. Successful sales processes will be designed and applied to each aspect of a business. With the ever competitive world of retail getting increasingly aggressive in an economy heading downward, attention to every detail is a must in an attempt to get an edge on the opposition.

Axiomatic design is a scientifically based design theory that guides designers through the process of first mapping customer needs into functional requirements, then mapping these requirements into design parameters, and then finally figuring out processes to provide those design parameters. We use these principles to design Sales Processes in retail stores, and claim that this methodology will improve sales operations. We provide a detailed description of the methodology applied to Sales Process design. Our findings indicate that the methodology works well in improving Sales Process because it eliminates many non-value-added activities.

**Keywords:** Axiomatic Design, sales process, retail shop.

### 1 INTRODUCTION

During the last few years, there has been growing interest in the way that firms design and implement their marketing organization. All recent management hits - like total quality management, business process re-engineering, customer relationship management, etc - put marketing organization in the spotlight by emphasizing how improvements in the efficiency and effectiveness of marketing processes are necessary in order to increase organizational performance [e.g., Day, 1994; Krohmer *et al.*, 2002].

Extant research also argues that, among other functions, the Sales unit plays a fundamental role in influencing market-related decisions [Troilo *et al.*, 2009]. Investigators believe that a capable sales department, therefore, can be one source of competitive advantage [Dubinsky *et al.*, 1986; Singh, 1998; Weitz and Bradford, 1999]. Sales has actually more influence than Marketing itself on decisions like pricing, designing customer service and support, expanding into new geographic markets, and developing distribution strategy [Krohmer *et al.*, 2002; Workman Jr. *et al.*, 1998]. Vadi and Suuroja [2006] argue that the changing economic paradigm called for a new, market-oriented model of the sales process.

Several aspects have been addressed within the behavioral framework, including the view introduced by Evans [1963], that the content of selling is a dyadic relationship leading to the adaptation of knowledge about the communication process and its specific features in buyer-seller relationships.

For example, Wilson [1976] presents a dyadic sales process model comprised of the following five steps:

- 1-Source legitimization
- 2-Information exchange, problem identification
- 3-Attribute delineation
- 4-Attribute value negotiation
- 5-Relationship maintenance

Dubinsky [1986] distinguishes seven steps in the personal selling process:

- 1-Locating and prospecting for customers
- 2-Pre-approach
- 3-Approach
- 4-Sales presentation
- 5-Handling objectives/sales resistance
- 6-Close
- 7-Post-sales follow-up, and examining the importance of selling techniques for different steps in the process.

In reality, consumers have to make comparisons of their shopping alternatives on a daily basis. Not only do they compare products, they also compare stores and sales channels [McGaughey and Mason, 1998]. Finell [2007] mentions in his book that an estimated 85 percent of new shops close within five years. That means only 15 percent will be successful. The 85 percent of hardworking people who didn't make it have experienced incalculable disappointment, frustration, bankruptcy, and in some cases a loss of life savings or marriages. The ideas that work for one shop owner don't necessarily work for another. But it seems there are some fixed and secure ways that make shop-owners successful.

Axiomatic design (AD) is a tool that is particularly suited to the design problem because it addresses how to handle cross-functional issues in designing Sales Processes. Many AD applications in designing products, systems, organizations, and software have appeared in the literature in the last decade.

This study develops a road map using Axiomatic Design in order to design the Sales Process in a retail store effectively. The road map provides a decomposition of broad design objectives into smaller supporting objectives that are then linked to specific design parameters for framing Sales Processes. In other words, this methodology creates a

decomposition process that enables a clear formulation of design objectives.

## 2 LITERATURE REVIEW

### 2.1 RETAILING

Retailing consists of the sale of goods or merchandise from a fixed location, such as a department store, boutique or kiosk, or by mail, in small or individual lots for direct consumption by the purchaser. Retailing may include subordinated services, such as delivery. Purchasers may be individuals or businesses. In commerce, a "retailer" buys goods or products in large quantities from manufacturers or importers, either directly or through a wholesaler, and then sells smaller quantities to the end-user. Retail establishments are often called shops or stores. Retailers are at the end of the supply chain. Manufacturing marketers see the process of retailing as a necessary part of their overall distribution strategy. The term "retailer" is also applied where a service provider services the needs of a large number of individuals.

Shops may be on residential streets, shopping streets with few or no houses or in a shopping mall. Shopping streets may be for pedestrians only. Online retailing, a type of electronic commerce used for business-to-consumer (B2C) transactions and mail order, are forms of non-shop retailing.

Shopping generally refers to the act of buying products. Sometimes this is done to obtain necessities such as food and clothing; sometimes it is done as a recreational activity. Recreational shopping often involves window shopping (just looking, not buying) and browsing and does not always result in a purchase.

It should always be remembered that nothing can replace retail entrepreneurship and attention being paid to the total shopping experience. Creating an enjoyable shopping experience requires categories to be defined in a more interesting manner than is the case in an average store, because today's stores are often organized around the way retailers buy and manufacturers sell, but not the way consumers think [Schroder, 1997].

### 2.2 WHAT MAKES A SUCCESSFUL RETAILER?

This question could be debated by retailers and other business managers for ever with wide ranging and diverse answers being offered. Schroder [1997] provides some of the secrets of successful retailing include:

- Attention to detail(s) - hundreds of them
- Position and passing trade
- Knowing the customer
- Providing appropriate levels of customer service - a perennial problem!
- Knowing what the customer wants
- Knowing how to reach the customer
- The ability to broaden your customer base
- The ability to attract more shoppers, more often
- The ability to get customers to spend more money each time they shop
- The ability to create excitement in and around your retail store
- The ability to run sales targeted at special events

- The ability to be able to identify those events
- The ability to liaise with other stores and suppliers
- The ability to develop community involvement
- The ability to attract media publicity
- An awareness of the strengths and weaknesses of your competitors
- The ability to create an impression with your premises, inside and out
- The ability to meet seasonal demands
- The ability to work and perform under extreme pressure

It is the unique individuality of the decor, displays, merchandise, personnel, and, of course, longevity - the complete combination - that rates a shop as extraordinary [Finell, 2007]. Finell [2007] suggests that underlying all planning is The Golden Rule: The Right Item, at the Right Time, in the Right Place, at the Right Price. The Golden Rule is the first rule, the cardinal rule - the foundation, in fact, of good retailing.

The aim of this work is to achieve a tight relation between the Sales Process characteristics (functional requirements in the design language) and Sales Process strategies (design parameters) on how to fulfill these characteristics.

### 2.3 AXIOMATIC DESIGN AND MARKETING

Different articles shows how design tasks from different fields can be described in terms of the four design domains. Since all designs fit into these four domains, all design activities can be generalized in terms of the same principals. Thus, generalized design principles can be applied to all design applications and the design issues that arise in these four domains can be considered systematically and, if necessary, concurrently [Suh, 2001]. Nordlund [1996] used the AD approach for business planning and proved that AD is applicable in non-engineering disciplines too. In business planning the AD terminology is changed to discipline specific terms: FRs were renamed to Goals, DPs became Strategies and PVs were changed to Activities.

Some other limited experiments were also conducted applying the AD framework to marketing problems (both academic examples conducted on Harvard business school cases and industry problems conducted with AGA AB). The results from these experiments indicate that the AD framework is also applicable in designing marketing strategies [Nordlund, 1996].

Martin and Kar [2002] used axiomatic design to provide a framework for the e-commerce applications in electronic retailing. The high level goals and strategies form the roots of the decomposition tree for the e-commerce strategy, and the process continues to zigzag back and forth between the goal domain and the strategy domain until the design is completely decomposed. The structured design and decomposition method assures that the decisions made in the strategy development are made in proper sequence.

## 3 DESIGN OF SALES PROCESS USING AD PRINCIPLES

### 3.1 DECOMPOSITION LEVEL 1

A successful design approach should begin with a definition of what we want to achieve and end with a clear description of how we will achieve them. From an FR in the functional domain, we go to the physical domain to conceptualize a design and determine its corresponding DP at the highest level.

For the preliminary stage of design, the principles of AD are applied. The first step is to define the FRs of the system at the highest level of its hierarchy in the functional domain. In this work, the following has been selected as the highest FR:

**FR<sub>0</sub> = to organize a retail shop sales process**

The following DP has been selected to satisfy the FR provided above:

**DP<sub>0</sub> = a retail shop sales process strategy**

If the DPs proposed for satisfying those FRs defined in the steps above cannot be implemented without further clarification, AD principles recommend returning to the functional domain for decomposing the FRs into their lower FRs set. The following lower FRs set is defined for decomposing the FR determined in Step 1:

**FR<sub>1</sub> = to sell the products to customers inside the shop**

**FR<sub>2</sub> = to sell the products without coming customers to the shop**

The following DPs are in response to the FRs listed above:

**DP<sub>1</sub> = the system of managing customers**

**DP<sub>2</sub> = e-commerce system**

The corresponding Design Matrix provides the relationships between the FR and DP elements (Figure 1). These FR and DP yield the design matrix for this level as:

	DP 1	DP 2
FR 1	X	0
FR 2	0	X

Figure 1. Decomposition Level 1.

The design given in Figure 1 is an uncoupled design and satisfies the Independence Axiom completely. It shows that attracting customers to the shop can be done in two independent ways.

### 3.2 DECOMPOSITION LEVEL 2

Level 2 includes decomposition of the system of managing customers and e-commerce system. The customers who enter the shop are new or old. Regarding this matter we can decompose FR<sub>1</sub> into two sections as FR<sub>11</sub> and FR<sub>12</sub>:

**FR<sub>11</sub> = to acquire new customers**

**FR<sub>12</sub> = to retain old customers**

In satisfying the four FRs defined above, we move from the functional domain to the physical domain. The following DPs are in response to the FRs listed above:

**DP<sub>11</sub> = Direct marketing**

**DP<sub>12</sub> = Customized Marketing**

The design matrix for this level is:

	DP 11	DP 12
FR 11	X	0
FR 12	0	X

Figure 2. Decomposition Level 2, FR1-DP1.

The design (Figure 2) at this level is also an uncoupled design. Marketing on the basis of relationships concentrates attention on building customer value in order to retain customers

Nowadays websites have an important role in sales process and many customers prefer to buy their needs by website. Customers can browse and shop online, request and obtain product information, and check the status of their orders. The decomposition of FR<sub>2</sub> is described below:

**FR<sub>21</sub> = to sell without an intermediate person**

**FR<sub>22</sub> = to sell with an intermediate person**

The corresponding DPs may be stated as follows:

**DP<sub>21</sub> = website development**

**DP<sub>22</sub> = call center and online chat**

According to Figure 3, the website enables companies to provide current and potential customers with a wealth of information about their products and services. On the other hand call centers and online chat technology, for example, allows companies such as Direct Line insurance to create value for customers by dealing with them directly. Although communication and transactions can be conducted via the web site, customers still demand the option to speak with a human representative for technical and process assistance [Payne, 2005]. And the design matrix is:

	DP 21	DP 22
FR 21	X	0
FR 22	0	X

Figure 3. Decomposition Level 2, FR2-DP2.

### 3.3 DECOMPOSITION LEVEL 3

At this stage, the FRs in level 2 include requirements to: acquire new customers, to retain old customers, to sell without an intermediate person, and to sell with an intermediate person. The corresponding DPs will be decomposed in order to obtain low-level FRs and DPs. The decomposition of FR<sub>11</sub> is described below:

**FR<sub>111</sub> = to present suitable prices**

**FR<sub>112</sub> = to prepare easy delivery**

**FR<sub>113</sub> = to access the shop comfortably**

**FR<sub>114</sub> = to attract the customers inside the shop**

**FR<sub>115</sub> = to provide after sales service**

**FR<sub>116</sub> = to buy comfortably**

**FR<sub>117</sub> = to acquaint the customers with the shop**

The corresponding DPs are:

**DP<sub>111</sub> = pricing system**

**DP<sub>112</sub> = delivery system**

**DP<sub>113</sub> = suitable place for the shop**

**DP<sub>114</sub> = methods for attracting customers**

**DP<sub>115</sub> = customer support system**

**DP<sub>116</sub>**= product diversity  
**DP<sub>117</sub>**= different advertising

We obtain the design matrix as:

	DP 111	DP 112	DP 113	DP114	DP 115	DP 116	DP 117
FR 111	X	0	0	0	0	0	0
FR 112	0	X	0	0	0	0	0
FR 113	0	0	X	0	0	0	0
FR 114	0	0	0	X	0	0	0
FR 115	0	X	0	0	X	0	0
FR 116	0	X	X	0	0	X	0
FR 117	0	0	X	X	0	0	X

**Figure 4. Decomposition Level 3, FR11-DP11.**

The design at this level is a decoupled design. This matrix (Figure 4) shows that delivery system and suitable place for the shop are the most important factors in acquiring new customers. In other words, customers pay attention to these two factors in choosing a new shop at first stage. It is necessary to know that price is not one of the top five concerns of customers [Jones, 2005]. Pricing should reflect competition and customer buying criteria. However, we don't forget the importance of advertising in attracting customers.

Customer intimacy requires a continuing focus on the means whereby the relationship with customers can be made more personalized and customized. In effect, the shop must be able to 'replicate the mind of the customer' if it is to provide the kind of individual or customized service that will attract, retain and grow profitable customer relationships. According to above sentences, the decomposition of FR<sub>12</sub> (to retain old customers) and DP<sub>12</sub> (Customized Marketing) is shown as:

**FR<sub>121</sub>**= to persuade the customers to repurchase from the shop

**FR<sub>122</sub>**= to understand the needs of old customers

**DP<sub>121</sub>**= persuasive plans

**DP<sub>122</sub>**= customer identity system

The design matrix is:

	DP 121	DP 122
FR 121	X	0
FR 122	0	X

**Figure 5. Decomposition Level 3, FR12-DP12.**

The design (Figure 5) at this level is an uncoupled design. The shop has to know the identity, profile, history, requirements, expectations and preferences of the customers. With persuasive plans, sales people try to retain the old customers. For instance, discounts can be a good offer for them or gifts for the family of the customer.

Experience suggests that most companies direct the greater part of their marketing activity at winning new customers. But while businesses need new customers, they must also ensure that they are directing enough of their effort at existing customers.

Several approaches have been applied to studying consumer behavior in the e-market. Others investigated individual characteristics of consumers that affect online purchasing decisions [Finell, 2007; Donthu and Garcia, 1999]. Potential customers around the world can find the shop with just a click of a button. Advanced web services and Internet enable the customer to browse web pages together from different locations. But website should have some characteristics and features to be useful. The decomposition of FR<sub>21</sub> shows some of these features shown below:

**FR<sub>211</sub>**= to persuade the customers to use the website

**FR<sub>212</sub>**= to purchase safely and comfortably in website by customers

**FR<sub>213</sub>**= to have after sales service

The corresponding DPs are stated as follows:

**DP<sub>211</sub>**= internet marketing

**DP<sub>212</sub>**= an applicable and secure site

**DP<sub>213</sub>**= customer support system

The design matrix is shown as:

	DP 211	DP 212	DP 213
FR 211	X	X	0
FR 212	0	X	0
FR 213	0	0	X

**Figure 6. Decomposition Level 3, FR21-DP21.**

The design (Figure 6) at this level is an uncoupled design. This shows that a secure and applicable website can persuade customers to use it in purchasing however, customers must know the website. One of the real-time target marketing solutions figures heavily in the Internet marketing initiative.

Call centers and especially online chat have escalated in importance over the last decade as many companies have reduced their high street presence and launched Internet channels. The telephone is both a channel in its own right and an important form of support for other channels. As telephone and data technologies converge, the role of the call centre will continue to expand, both as a customer interface and as an internal information resource. The decomposition of FR<sub>22</sub> (to sell with an intermediate person) according to its corresponding DP that is DP<sub>22</sub> (Call center and online chat) is:

**FR<sub>221</sub>**= to access easily to call center

**FR<sub>222</sub>**= to purchase safely

**FR<sub>223</sub>**= to order easily and rapidly

The following DPs are in response to the FRs listed above:

**DP<sub>221</sub>**= 24-hour responder

**DP<sub>222</sub>**= order tracking system

**DP<sub>223</sub>**= enough phone line

The design (Figure 7) at this level is a decoupled design. Call-centre operatives already handle telephone calls, faxes and e-mail messages. Increasingly, they will also interact with the customer via shared web pages and Internet telephony. Registered web site users can log into an account management section with their email address and password to manage the following areas:

- ‘My profile’ – allows users to keep their contact and account information such as payment method and delivery address.
- Account history – where users can view all orders made through the web site, checking each order and its details in full at any time.
- Order tracking – once an order has been placed, users can log into their account management section and view the progress of their order

We obtain the design matrix as:

	DP 221	DP 222	DP 223
FR 221	X	0	0
FR 222	0	X	0
FR 223	X	0	X

Figure 7. Decomposition Level 3, FR22-DP22.

### 3.4 DECOMPOSITION LEVEL 4

There are several ways to attract the customers inside the shop. If the customers can't find what they're looking for in the shop, they are unlikely to stay long. A proper retail store design is the key to attracting new customers, but can also play an important role in retaining the customers. We can show the suitable features to attracting the customers inside the shop by decomposition of FR<sub>114</sub> (to attract the customers inside the shop) as shown below:

- FR<sub>1141</sub> = to pay easily**
- FR<sub>1142</sub> = to sell side products**
- FR<sub>1143</sub> = to attract the customers by salespeople**
- FR<sub>1144</sub> = to attract the customers by the appearance of the shop**
- FR<sub>1145</sub> = to access easily and rapidly to the products**

The following DPs have been selected to satisfy the FRs provided above:

- DP<sub>1141</sub> = different ways of paying**
- DP<sub>1142</sub> = the side products shelves**
- DP<sub>1143</sub> = good behavior and appearance of salespeople**
- DP<sub>1144</sub> = suitable display window and interior decoration**
- DP<sub>1145</sub> = suitable layout of products and guide**

The design (Figure 8) at this level is an uncoupled design. According to the independence axiom, the four functions of this level can be provided independently. Therefore, DPs at this level can be adjusted to satisfy their corresponding FRs without affecting the others. It is vital for your shop to be welcoming and user-friendly. Items should be divided into appropriate categories, making it as easy as possible for people to find what they are looking for. Avoid ambiguity in the categories and if necessary, use text descriptions to explain what is in a category. The shop should allow the customers to use a variety of payment methods, including: credit cards, debit cards, payment processors (for example, WorldPay and PayPal), multi-currencies, and cheques. Customer satisfaction with the salesperson reflects an emotional state that occurs in

response to an evaluation of the interaction experience that the customer has with the salesperson [Crosby et al., 1990] The design matrix for this level is:

	DP 1141	DP 1142	DP 1143	DP 1144	DP 1145
FR 1141	X	0	0	0	0
FR 1142	0	X	0	0	0
FR 1143	0	0	X	0	0
FR 1144	0	0	0	X	0
FR 1145	0	0	0	0	X

Figure 8. Decomposition Level 4, FR114-DP114.

The decomposition of FR<sub>115</sub> (to have after sales service) and corresponding DPs is:

- FR<sub>1151</sub> = to support the customers during all steps of purchasing**
- FR<sub>1152</sub> = to respond rapidly to the customers**
- DP<sub>1151</sub> = integrated support service**
- DP<sub>1152</sub> = multiple channels of communication between shop and customers**

The design matrix for this level is:

	DP 1151	DP 1152
FR 1151	X	X
FR 1152	0	X

Figure 9. Decomposition Level 4, FR115-DP115.

The design (Figure 9) at this level is a decoupled design. Many shops use a combination of direct and indirect channels especially for sales and service functions. Future growth is expected to come from a renewed focus on customer service automation across multiple channels. Multichannel technology is necessary to deliver to the customer a feeling of recognition, and consistency of service over all stages of the communication process.

Turning to Web-based service strategies seems to be a necessary alternative. In fact, the average consumer now visits more than half a dozen Web sites during the buying process, gathering information and impressions at each stop [Brock, 2003]. Regarding these matters the decomposition of FR<sub>211</sub> (to persuade the customers to use the website) is described below:

- FR<sub>2111</sub> = to attract the customers in the website**
- FR<sub>2112</sub> = to present lower prices in comparison with prices in the shop**

The following DPs are in response to the FRs listed above:

- DP<sub>2111</sub> = attractive and useful content in the website**
- DP<sub>2112</sub> = pricing system**

We obtain the design matrix as:

	DP 2111	DP 2112
FR 2111	X	0
FR 2112	0	X

Figure 10. Decomposition Level 4, FR211-DP211.

The design (Figure 10) at this level is a uncoupled design. Customers expect the information they find on the Web will be timely, up-to-date, and relevant to their immediate needs. If it isn't, they will develop a bad impression of the company. It is also important not to try to force things to the Web if there is a simpler solution.

An applicable website has to have different characteristics that are shown in the decomposition of FR<sub>212</sub> (to purchase safely and comfortably in website by customers):

- FR<sub>2121</sub> = to pay comfortably**
- FR<sub>2122</sub> = to select the products easily**
- FR<sub>2123</sub> = to purchase safely**

And the corresponding DPs are:

- DP<sub>2121</sub> = different ways of paying**
- DP<sub>2122</sub> = complete information about all products**
- DP<sub>2123</sub> = update information**

We obtain the design matrix as:

	DP 2121	DP 2122	DP 2123
FR 2121	X	0	0
FR 2122	0	X	X
FR 2123	0	0	X

**Figure 11. Decomposition Level 4, FR<sub>212</sub>-DP<sub>212</sub>.**

The design (Figure 11) at this level is a decoupled design. Web-based services will be a necessary alternative with e-service that is fast, meaningful, compelling, and customer-driven. Web requests, just like contact center interactions, require immediate responses. The customer can access product specifications, and alternative and complimentary items that then may be stored in a personal Web account.

The decomposition of FR<sub>213</sub> (to have after sales service) and corresponding DPs is:

- FR<sub>2131</sub> = to support the customers during all steps of purchasing**
- FR<sub>2132</sub> = to respond rapidly to the customers**
- DP<sub>2131</sub> = integrated support service**
- DP<sub>2132</sub> = multiple channels of communication between shop and customers**

The design matrix is shown as:

	DP 2131	DP 2132
FR 2131	X	X
FR 2132	0	X

**Figure 12. Decomposition Level 4, FR<sub>213</sub>-DP<sub>213</sub>.**

The design (Figure 12) at this level is a decoupled design. Customer expectations of service are on the rise. When companies get this kind of feedback they are often surprised at how much money they were wasting by providing services some customers found to be of no value. Sixty-six percent of multichannel shoppers browse in one channel but purchase in another. And multichannel shoppers spend more. Consumers that either browsed or purchased in all three channels—on the Internet, through catalogs, and in retail stores—spent \$995 on holiday shopping in 2001, compared with shoppers who

browsed or purchased in two channels (\$894) and consumers who used only one channel (\$591) [Newell, 2003].

The design of Sales Process in a Retail shop is completed (see Figure 13 and Figure 14).

## 4 DISCUSSION & CONCLUSION

There are lots of factors influencing a retail shop. These factors can be divided into three sections, including before purchase, during purchase, and after purchase. Many retailers ignore these steps. They think they only have to sell their merchandises, whereas identifying the factors which persuade the customers to buy for the first time or buy repeatedly, is extremely important. The retailers aren't able to distinguish all of these factors because many of them are hidden or influence other factors.

This paper presents a systematic road map for designing Sales Processes using axiomatic design principles. An application of the independence axiom was proposed throughout the design process to develop a road map for Sales Processes. Axiomatic Design gives us this ability to identify the most detailed factors and their relationships by independence axiom and decomposition. As Figure 15 shows, the sales process has been decomposed to four levels. Customers, sales people, delivery, appearance of shop, and many other factors have been regarded in the decomposition process. On the other hand, regarding Figure 15, several DPs affect FR<sub>121</sub> (to persuade the customers to repurchase from the shop). This means that the strategy of retaining customers has a great importance. Nowadays, many retailers have found the importance of this strategy. If you look carefully at complete matrix, you will find it coupled. This reveals that "call centers" and "after sales services" are parallel functions or cross-functions and this is a weak point that has to be solved.

This is a new approach to development and formulation in Sales Processes, with the decomposition of Functional Requirements and Design Parameters using Axiomatic Design. This structured design and decomposition method assures that the decisions made in the design are made in proper sequence. It assures that "What to do" is answered before "How to do it".

Functional requirement and design parameter sets in Sales process design might change according to the designer. Future research could involve a different design developed by another designer that would be compared to the presented road map using the information axiom. Research for generating the information content of design matrices is in progress.

We present some suggestions to be done by other researchers in the future:

- 1-To implement this model in a real retail shop and compare the results of before and after implementation.
- 2-To promote this model to more levels and complete FRs and DPs.
- 3-To try to make the matrix decoupled and then uncoupled.
- 4- To use Axiomatic Design in other fields of Marketing.

- DP<sub>0</sub> = a retail shop sales process strategy
- DP<sub>1</sub> = the system of managing customers
- DP<sub>11</sub> = Direct marketing
    - DP<sub>111</sub> = pricing system
    - DP<sub>112</sub> = delivery system
    - DP<sub>113</sub> = suitable place for the shop
    - DP<sub>114</sub> = methods for attracting customers
      - DP<sub>1141</sub> = different ways of paying
      - DP<sub>1142</sub> = side products shelves
      - DP<sub>1143</sub> = good behavior and appearance of salespeople
      - DP<sub>1144</sub> = suitable display window and interior decoration
      - DP<sub>1145</sub> = suitable layout of products and guide
    - DP<sub>115</sub> = customer support system
      - DP<sub>1151</sub> = integrated support service
      - DP<sub>1152</sub> = multiple channels of communication between shop and customers
    - DP<sub>116</sub> = product diversity
    - DP<sub>117</sub> = different advertising
  - DP<sub>12</sub> = Customized Marketing
    - DP<sub>121</sub> = persuasive plans
    - DP<sub>122</sub> = customer identity system
- DP<sub>2</sub> = e-commerce system
- DP<sub>21</sub> = website development
    - DP<sub>211</sub> = internet marketing
      - DP<sub>2111</sub> = attractive and useful content in the website
      - DP<sub>2112</sub> = pricing system
    - DP<sub>212</sub> = an applicable and secure site
      - DP<sub>2121</sub> = different ways of paying
      - DP<sub>2122</sub> = complete information about all products
      - DP<sub>2123</sub> = update information
    - DP<sub>213</sub> = customer support system
      - DP<sub>2131</sub> = integrated support service
      - DP<sub>2132</sub> = multiple channels of communication between shop and customers
  - DP<sub>22</sub> = call center and online chat
    - DP<sub>221</sub> = 24-hour responder
    - DP<sub>222</sub> = order tracking system
    - DP<sub>223</sub> = enough phone line

Figure 13. List of FRs.

- FR<sub>0</sub> = to organize the sales process in a shop
- FR<sub>1</sub> = to sell the products to customers inside the shop
- FR<sub>11</sub> = to acquire new customers
    - FR<sub>111</sub> = to present suitable price
    - FR<sub>112</sub> = to prepare easy delivery
    - FR<sub>113</sub> = to access comfortably to the shop
    - FR<sub>114</sub> = to attract the customers inside the shop
      - FR<sub>1141</sub> = to pay easily
      - FR<sub>1142</sub> = to sell side products
      - FR<sub>1143</sub> = to attract the customers by salespeople
      - FR<sub>1144</sub> = to attract the customers by the appearance of the shop
      - FR<sub>1145</sub> = to access easily and rapidly to the products
    - FR<sub>115</sub> = to have after sales service
      - FR<sub>1151</sub> = to support the customers during all steps of purchasing
      - FR<sub>1152</sub> = to respond rapidly to the customers
    - FR<sub>116</sub> = to buy comfortably
    - FR<sub>117</sub> = to acquaint the customers with the shop
  - FR<sub>12</sub> = to retain old customers
    - FR<sub>121</sub> = to persuade the customers to repurchase from the shop
    - FR<sub>122</sub> = to understand the needs of old customers
- FR<sub>2</sub> = to sell the products without coming customers to the shop
- FR<sub>21</sub> = to sell without an intermediate person
    - FR<sub>211</sub> = to persuade the customers to use the website
      - FR<sub>2111</sub> = to attract the customers in the website
      - FR<sub>2112</sub> = to present lower prices in comparison with prices in the shop
    - FR<sub>212</sub> = to purchase safely and comfortably in website by customers
      - FR<sub>2121</sub> = to pay comfortably
      - FR<sub>2122</sub> = to select the products easily
      - FR<sub>2123</sub> = to purchase safely
    - FR<sub>213</sub> = to have after sales service
      - FR<sub>2131</sub> = to support the customers during all steps of purchasing
      - FR<sub>2132</sub> = to respond rapidly to the customers
  - FR<sub>22</sub> = to sell with an intermediate person
    - FR<sub>221</sub> = to access easily to call center
    - FR<sub>222</sub> = to purchase safely
    - FR<sub>223</sub> = to order easily and rapidly

Figure 14. List of DPs.

		DP <sub>0</sub> = a retail shop sales process strategy																					
		DP <sub>1</sub> = the system of managing customers									DP <sub>2</sub> = e-commerce system												
		DP <sub>11</sub> = Direct marketing						DP <sub>12</sub> = Customized Marketing			DP <sub>21</sub> = website development						DP <sub>22</sub> = call center and online chat						
		DP <sub>114</sub> = methods for attracting customers			DP <sub>115</sub> = customer support system			DP <sub>116</sub> = product diversity			DP <sub>117</sub> = different advertising			DP <sub>211</sub> = internet marketing			DP <sub>212</sub> = an applicable and secure site			DP <sub>213</sub> = customer support system			
FR <sub>0</sub> = to organize the sales process in a shop	FR <sub>1</sub> = to sell the products to customers inside the shop	FR <sub>11</sub> = to acquire new customers inside the shop	FR <sub>111</sub> = to present suitable price	X																			
			FR <sub>112</sub> = to prepare easy delivery		X																		
			FR <sub>113</sub> = to access comfortably to the shop			X																	
			FR <sub>114</sub> = to attract the customers inside the shop	FR <sub>1141</sub> = to pay easily			X																
				FR <sub>1142</sub> = to sell side products				X															
				FR <sub>1143</sub> = to attract the customers by salespeople					X														
				FR <sub>1144</sub> = to attract the customers by the appearance of the shop						X													
				FR <sub>1145</sub> = to access easily and rapidly to the products							X												
			FR <sub>115</sub> = to have after sales service	FR <sub>1151</sub> = to support the customers during all steps of purchasing								X	X										
				FR <sub>1152</sub> = to respond rapidly to the customers									X										
	FR <sub>116</sub> = to buy comfortably	FR <sub>1161</sub> = to buy comfortably									X												
		FR <sub>117</sub> = to acquaint the customers with the shop										X											
	FR <sub>12</sub> = to retain old customers	FR <sub>121</sub> = to persuade the customers to repurchase from the shop			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
		FR <sub>122</sub> = to understand the needs of old customers													X	X							
	FR <sub>2</sub> = to sell the products without coming customers to the shop	FR <sub>21</sub> = to sell without an intermediate person	FR <sub>211</sub> = to persuade the customers to use the website														X						
			FR <sub>2111</sub> = to attract the customers in the website																X				
			FR <sub>2112</sub> = to present lower prices in comparison with prices in the shop																	X			
			FR <sub>212</sub> = to purchase safely and comfortably in website by																		X		
			FR <sub>2121</sub> = to pay comfortably																			X	
		FR <sub>2122</sub> = to select the products easily																				X	
FR <sub>2123</sub> = to purchase safely																						X	
FR <sub>213</sub> = to have after sales service																						X	
FR <sub>2131</sub> = to support the customers during all steps of purchasing																							X
FR <sub>2132</sub> = to respond rapidly to the customers																							
FR <sub>22</sub> = to sell with an intermediate person	FR <sub>221</sub> = to access easily to call center																					X	
	FR <sub>222</sub> = to purchase safely																						X
	FR <sub>223</sub> = to order easily and rapidly																						X

Figure 15. Complete Design Matrix for Sales Process.

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