Tracking Service Failure Throught A Service Blueprinting Method - Case Study at Hotel Al Baz EL Eulma/ Setif تتبع الاخفاق الخدمي من خلال منهج الطبعة الزرقاء

-دراسة حالة فندق الباز بالعلمة / سطيف -

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Abstract: This study presents a method for representing and analyzing service failure, this method called service blueprinting. Beside that, this paper discuss the possibility of developing hotel services, therefore, the problem is the contribution of the method of blueprinting in improving service failure at the hotel of Al-Baz, where the results of the study showed that the blueprinting method contributes in avoiding a service failure, it's means that when service organizations apply blueprinting approach one percent it contributes 37 percent to avoid a service failure.

Keyword: service marketing; service failure; Blueprinting Method; Hotel Al –Baz

JEL classification code : M10, M30

ملحص: تقوم هذه الدراسة على تقديم طريقة لتمثيل وتحليل فشل الخدمة، وهذه الطريقة تسمى منهج الطبعة الزرقاء (الخريطة الخدمية)، وإلى جانب ذلك تبحث هذه الورقة في إمكانية تطوير خدمات الفنادق، فمشكلة البحث تتمثل في مدى مساهمة منهج الطبعة الزرقاء في تحسين الخدمة من خلال تجنب الاخفاق الخدمي بفندق الباز، حيث أظهرت نتائج الدراسة أن منهج الطبعة الزرقاء يساهم في تجنب فشل الخدمة، وهذا يعني أنه عندما تطبق مؤسسات الخدمة منهج الطبعة الزرقاء بنسبة واحدة في المائة، فإنها تساهم بنسبة 37 في المائة لتجنب فشل الخدمة. الكلمات المفتاحية : تسويق الخدمات ؛ منهج الطبعة الزرقاء ؛ فشل الخدمة (الاخفاق الخدمي) ؛ فندق الباز.

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1. Introduction :

In the past two decades, the tourism industry has become one of the fastest growing industries in the world, beside that it has proven to be one of the most resilient economic sectors worldwide, with considering that its complexity of multiple horizontal links with other economic sectors. Tourism can generate development opportunities along the entire tourism value chain, diversifying the economy and stimulating entrepreneurship, thus accelerating structuraltransformation and providing opportunities to stimulate other productive sectors in goods and services related to tourism demand. However, Africa declined by 3%, in international tourist arrivals mostly due to weak results in north Africa that's why we find the Algerian tourism described with buried alive and a model of failure, and blood-stained image among foreign tourists, in same time the Algerian hotels are no longer safe and suffering from competitive pressure strong, if we take into account that, the most important competitors in the hotel services sector are belong to famous international chains such as Sheraton and Hilton hotels...etc, as a result the Algerian customer is transformed (guest) to the international custome, for him services which are provided by Algerian hotels (from his point of view) they do not live up to his aspirations and he became compares the service which is provided by a various hotels, and he ask very important question, why there are various points between Algerian and foreign hotels?

The answer and the point is marketing techniques and the appliction of these techniques in Algerian hotels, there is problem and big disappointment, in reality we confess there is no relation between those hotels and marketing techniques, they are not just an option, but an inescapable imperative as it represents a integrated model taken by foreign organizations competition in the same sector, among these techniques we find the service blueprinting method. The research paper has aim to answer the main problem, which is: What is the extent of the contribution of service blueprinting in avoiding service failure ? To answer, the main problem has been addressed in the following axes:

- An Introduction to Services Failure;
- Techniques of services marketing : Blueprinting method;
- Service blueprintig at practice.

I. **Theoretical Framework :**

2. An Introduction to Services Failure :

Service failure, or service breakdown, can be defined as service that does not meet customer expectations. There are numerous reactions customers may have to service failures, but the most commonly investigated are changes in satisfaction, emotive reactions (such as anger, displeasure, or remorse), and behavioral consequences (such as complaining or switching service providers). A significant behavioral outcome of service failure relates to the repatronage of service providers. Long-term loyalty is likely to be affected by service failure, especially when there is a chance to change suppliers. (Agarwal, Mehrotra, & Barger, 2016, pp.31-32).

A service failure is defined as service performance that falls below a customer's expectations (Hedrick, l Beverland, & Minahan, 2007, p.64)

Customers evaluate services by comparing the service they perceive they have received (service performance) with their expectations of what they should have received. A service failure occurs when the service performance fails to live up to the customer's expectations. A service failure could originate in a core-service problem such as unavailability of the service (no service personnel with the appropriate knowledge are available), exceptionally slow service, mistakes in the service (e.g., bank statement errors, order fulfilment errors, or online statement errors), etc (McLelland & Goldsmith, 2014, p.4)

When service failures occur, the service provider's reaction can potentially either reinforce a strong customer bond, or change a seemingly minor distraction into a major incident. Given that improving a company's customer retention rate by 20 percent has the same effect on profits as cutting costs by 10 percent, it is imperative that managers carefully consider failure and recovery issues and have an established service recovery plan to overcome failures when they occur. (Hoffman, Kelley, & Rotalsky, 1995, p.49).

The terms service failure and service recovery are also related in the literature to customer complaining behaviour and effective handling of complaints respectively. (Hardeep & Devi, 2013, p.212)

2.1. Impacts of service failure :,

Service failure has a various impacts on (McLelland & Goldsmith, 2014, pp.5-7):

- **Complaining Behavior:** service provided in a failed encounter influences future complaint intentions, dissatisfaction leads to customer complaining behavior that manifests in voice responses such as seeking redress from the seller, private responses (negative word-of-mouth communication), or thirdparty responses (taking legal action).

- Negative Word-of-Mouth: Word-of-mouth is defined as informal communications directed at other consumers about the ownership, usage, or characteristics of particular goods and services and/or their sellers. Even if consumers do not leave a firm following a merger or a service failure, they may be inclined to complain to their friends and family.
- **Switching Intent:** Service provider switching can have a significant impact on a firm. When customers are lost, new ones must be attracted to replace them, and replacement comes at a high cost. Switching can result from three drivers (push effects, pull effects, and mooring effects). Push effects include low quality, low satisfaction, low trust, low commitment, and high prices. Pull effects refer to attractive alternatives; whereas, mooring effects are personal inhibitors and facilitators (e.g, variety seeking).

2.2. Causes of failure:

Weiner described causes of failure by their underlying causal properties: locus, stability and control. Locus refers to who the customer thinks is responsible for the service failure. Was the cause of failure related to the producer or the consumer? A second property, stability, refers to the dimension of permanence of a cause (will it fluctuate or be permanent). The third property, controllability, refers to whether the cause was volitional or non-volitional.

When consumers are offered an apology or are provided with the opportunity to express their concerns to a service representative that perceptions of satisfaction and fairness are enhanced, particularly when recovery outcomes are favorable. It's found that perceived service quality and customer organizational commitment were both significantly related to customer service recovery expectations (Hoffman, Kelley, & Rotalsky, 1995, p.49). Customer-service provider relationships consist of different combinations of mediating constructs such as trust, commitment, social attachment, love of the product, or investment. These different combinations may affect how different customers respond to the same service failure. (Hedrick, Beverland, & Minahan, 2007, pp.64-65)

2.3. Types of Service Failure:

Schmitt (1999) presented five types of experience marketing approaches, referred to as "strategic experiential modules": "sense," "feel," "think," "act," and "relate." Dub'e and LeBel (2003) have distinguished four similar "pleasure dimensions" — emotional, intellectual, physical, and social pleasures. Dub'e and LeBel's (2003) four pleasure dimensions map closely to four of Schmitt's experience modules (namely, feel, think, act and relate, respectively). The following six experiential components:

- Sensorial (sight, hearing, touch, taste, and smell experiences and how they arouse aesthetic pleasure, excitement, satisfaction and a sense of beauty)
- Emotional (moods, feelings, and emotional experiences that create an affective relation with the company, its brands and products)
- Cognitive (experiences related to thinking and conscious mental processes to get customers to use their creativity or problem solving so that they revise assumptions about a product)

- Pragmatic (experiences resulting from the practical act of doing something and usability)
- Lifestyle (experiences resulting from the affirmation of values and personal beliefs)
- Relational (experiences, emerging from social contexts and relationships, that occur during common consumption as part of a real or imagined community or to affirm social identity). (Schmitt, 2010, pp 68-69).

3. Techniques of services marketing: Service Blueprinting Method :

Service-Blueprinting is a tool that gives a better understanding of the services and their basic processes. The objective is to establish the activities of the service production in a graphical representation. Service-Blueprinting with its strong client-focus differs from other methods of process analysis; Service Blueprinting supports client satisfaction. Service Blueprinting considers not only the client requirements during the process design, but also the firm's internal requirements (Coenen, Felten, & Schmid, 2011, p426).

Blueprinting is a compound term consists of two words Blue and Printing, where the first one is color blue which is chosen pricesly to distinguish or differentiated from white drawings that are used in the field of architecture. In addition to indicate that these schemes are used in the field of services marketing.

The second one Printing refers to plans that are adopted in the field of architecture, which explains all the steps adopted by the engineer in the design of a project. By combined two words we get a new word blueprinting.

3.1. Definition of service blueprinting :

The method was created by Shostack (1982, 1984) and subsequently developed by Fließ and Kleinaltenkamp (2004) and Kingman-Brundage (1995). (Gersch, Hewing, & Schöler, 2011, p737)

This approach, which appeared as a result of the urgency created by the various service organizations to visible or services Maps images because it is difficult to describe every conceivable service experiences or service operations when relying on words alone.

Blueprints provide service designers with a way to visualize service processes and to identify op- portunities for improvement. After a service is blueprinted, it is easy to check that all processing steps are in a logical sequence. Once the pro- cesses involved have been identified and dia- gramed, blueprints are used to isolate potential failure points in the system and to build in pro- cesses to correct service failures (Berkley, 1996, p152). Service blueprinting (SB) is commonly used by service providers a method as a tool for designing and managing service processes. A blueprint depicts all sequences and steps of the service delivery process graphically in a two-dimensional flowchart. The design process involves four steps: the identification of all necessary processes, the isolation of fail points, the establishment of time frames, and a cost-profit analysis (Kostopoulos, Gounaris, & Boukis, 2012, p737).

After we show all these definitions we can say service blueprinting is:

- tool for managing service operations ;
- a map of a user journey : phase by phase and step by step ;
- a map of Touchpoints ;
- a map of Backstage Processes : action by action.

3.2. Components of SB:

Service blueprints can be described as two-dimensional pictures of service processes. While the horizontal axis represents the chronology of actions conducted by the service customer and the service provider, the vertical axis distinguishes between different areas of action. A typical service blueprint consists of five components (**see figure 1** for a diagram of key components). (Coenen, Felten, & Schmid, 2011, p 426):

- **Customer/actions**: include all of the steps that customers take as part of the service delivery process. Customer actions are depicted chronologically across the top of the blueprint;

- **Onstage/visible** contact employee actions: are separated from the customer by the line of interaction. Those actions of frontline contact employees that occur as part of a face-to-face encounter are depicted as onstage contact employee actions. Every time the line of interaction is crossed via a link from the customer to a contact employee;

- **Backstage/invisible** contact employee actions: are separated from the onstage actions by the very important line of visibility. Everything that appears above the line of visibility is seen by the customer, while everything below it is invisible. Below the line of visibility, all of the other contact employee actions are described, both those that involve nonvisible interaction with customers (e.g., telephone calls) as well as any other activities that contact employees do in order to prepare to serve customers or that are part of their role responsibilities;

- **Support processes**: separated from contact employees by the internal line of interaction. These are all of the activities carried out by individuals and units within the company who are not contact employees but that need to happen in order for the service to be delivered;

- **Physical evidence:** evidence that customers come in contact with is described at the very top of the blueprint. These are all the tangibles that customers are exposed to that can influence their quality perceptions.

These areas of actions are separated by diverse "lines". The "line of interaction" separates the customer action area from the supplier action area, representing the direct interactions between customer and supplier. Above the "line of interaction", we find activities, choices, and interactions performed by the customer. The "line of visibility" differentiates between actions visible and invisible to the customer. Above the "line of visibility", actions and decisions carried out by front office employees are shown. The "line of internal interaction" distinguishes between front office and back office activities. Support processes which are necessary to aid front office employees in delivering the service are carried out beneath the "line of internal internal

Fig.1: Service Blueprinting Components

Physical Evidence	
Customer Actions	
	Line of Interaction
Onstage Visible Contact	
Employee Actions	
	Line of Visibility
Backstage Invisible	
Contact Employee Actions	
	Line of internal intrection
Support Processes	

Source: (*Bitner, Ostrom, & Morgan, 2008, p73*)

3.3. Benefits achieved through service blueprinting :

We have observed countless benefits gained when organizations utilize service blueprinting. These include benefits that can translate into greater value for the customer, organization, and individual employee. We clear that by following points, are (Ostrom, Bitner, & Burkhard, 2011, p26-27):

2.3.1. Customer-focused benefits:

By examining services from the customer's point of view, the customer, is an important beneficiary. The collaborative discussions facilitated by service blueprinting illuminate the customer's role and demonstrate where the customer experiences quality, assist in identifying fail points and opportunities for improvement and innovation, and help identify areas that require greater communication with customers.

2.3.2. Organization-focused benefits:

The organization, can also realize significant benefits from service blueprinting. Introducing the mindset and technique into an organization can establish a common customer-centric framework and vocabulary, provide a focused way to better understand and standardize service processes and offerings, and facilitate new service development.

2.3.3. Employee-focused benefits:

Service blueprinting also provides a number of benefits related to individual employees or faculty and staff in the case of higher education. The inclusive nature of service blueprinting helps employees relate "what I do" to the service viewed as an integrated whole, identify areas where greater employee marketing, education, or training is needed ; and drive employee buy-in for new service offerings or improvements. These elements can help produce a more customerfocused, educated, and engaged employee base. In fact, this can be the most powerful outcome associated with service blueprinting.

In an article published two years later, Shostack summarizes the process of designing a blueprint in four steps as following (Haugen, 2013, p3):

- Identifying the process ;

- Isolating the fail points ;
- Establishing the time frame ;
- Analyzing profitability.

II. Pratical Framework of The Study

1. Conceptual Model

In order to proceed with a scientific and systematic research, a scientific and theoretical framework that is idiomatically named conceptual model is needed. The conceptual model designed by researchers based on their previous works contained all the factors under study in this research. Thus, this model was used in the present research as illustrated in figure 2.

Fig.2: Conceptual model



Source: prepared by the researchers

2. Study Methodology:

2.1. Main Assumption

Hypothesis 1: There is a significant significance between the variable of service blueprinting method as an independent variable in avoiding the service failure as an dependent variable at the hotel of El-BAZ.

2.2. Research Methodology and Data Collection :

The sample study consisted of all customers at hotel of EL BAZ in EL EULMA / SETIF. A descriptive correlational design was used to identify whether relationships existed between service blueprinting method (front office processes) and service failure. This research is descriptive on the basis of how data have been collected, and it is also practical in nature because relevant data has been collected to define the characteristics of the sample group on a corelational scale. The research was carried out over a two month period, from April 2019 to April 2019, on customers residing in the hotel of ELBAZ in EL EULMA city. Data collection was done using a standard questionnaire, the content, validity and reliability of which had been confirmed in many researches. To further estimate the level of content validity of the questionnaire, the instrument was pilot tested prior to the study by querying 15 customers in the hotel and analysing the answers. As a result, a Cronbach alpha of $\alpha = 0.745$ was obtained proving that this measuring instrument - the Service Failure / service blueprinting Questionnaire - has a high reliability. The instrument utilised was a questionnaire which having two sections which had been reviewed by researchers based upon previous research evidence. This questionnaire measures the effect of SB on service failure. It contains 08 questions and uses a 5-point Likert scale to measure each of the dimensions by grading answers on a 1 to 5 scale. A total of 74 individuals was examined from which lost quantities were eliminated and 61 observations were finally studied. Frequency of personal data is listed in Table 1.

Characteristic	Frequency	Percentage
Gender		
Male	28	62,3%
Female	23	37,7%
Age (range)		
- Less than 20 years	12	19,7%
		37.7%
- 20 years to 35 years	23	
- 35 years to 50 years	16	26.2%
- Older than 50 years	10	16.4%
Why you choosed this hotel ?		
- A perfect location	20	32,8%
- Good price	19	31,1%
-The diversity of its services	2	3,3%
-Recommendation from a friend	10	27%
- Another reason	10	27%
Total	61	100%

Table 1: The frequency and percentage of personal data

Source: prepared by the researcher, based on the output of the SPSS

The data was analysed using structural equation modelling. Structural equation modelling is a statistical model used to survey the linear correlation between predictive (unobserved) variables and descriptive (observed) variables

We used the statistical method in the treatment of the phenomenon studied by a set of statistical indicators, relating in particular to ready to SPSS through statistical package insert storage and analysis. Using this technique, researchers can support or refute hypothetical structures. The Mean, Std. Deviation and Relative standard deviation of observed variables has been summarised in table 2.

Sections	Mean	Std. deviation	Relative standard deviation	The signifi cance level
1- The service providers discrete friendliness in their actions with me	4,5738	,53101 <i>0</i>	11,609	,000
2- The sponsors of the services as high standard of efficiency in the provision of the service i want.	4,2951	0 ,71518	16,651	,000
3- Stringent service providers in the request of personal documents when the arrest operations.	3,5246	1,16342	33,008	,000
4- Accompanied by stringent staff when the provision of the service needs with a smile and a positive interaction with me	4,4754	0,76608	17,117	,000
5- The provision of the service at a time that suits me.	4,2623	0,65579	15,385	,000
6- The flexibility of the services provided by the hotel al-Baz (service production, according to what I want) 7- The service is organized	3,9016	1,15043	29,48	,000
and standardized for all customers	3,7541	0,97734	26,033	,000
8-There are meetings between myself and other clients for the exchange of information on how the provision of the service in the hotel	3,8033	1,26253	33,195	
Results	4,0738	0,407850	10,011	,000

Table2 : The summary of statistics for variables

Source: prepared by the researcher, based on the output of the SPSS

Through these results we can reach a conclusion that the production of service in the Hotel AL BAZ is as desired by the customer and therefore can be said that the Hotel AL BAZ consists of a group of staff working to serve the customer always, as the degree of customer satisfaction tended to approve the service provided Therefore, Al BAZ Hotel should take into account this resource which it has, as it can be said that it is a source of advantage that distinguishes it from other competing hotels, and therefore is considered a strength for Al BAZ Hotel, and should be promoted and maintained through: Training staff to manage interaction Share with friends: Customers on the one hand, and on the other hand encourage interaction between customers themselves in order to know the reactions of customers and control of these actions to serve the image of the hotel within the mind of the customer.

3. Hypothesis Testing :

We will try to test the validity of the hypothesis in order to measure the relationship between the blueprinting and service failure, where the purpose of the answer to this hypothesis we will try to test them through some statistics inferential indicators.

3. 1. The hypothesis testing:

Bilateral, Multiple Correlation Test to measure the relationship between each of front office and service failure.

		Front office	Service Failure
Front office	Corrélation de Pearson	1	,771**
	Sig. (bilatérale)		,000
	Ν	61	61
Service failure	Corrélation de Pearson	,771**	1
	Sig. (bilatérale)	,000	
	Ν	61	61

Table 3: The correlation matrix between the front office andService failure

**. La corrélation est significative au niveau 0,01 (bilatéral).

Source: prepared by the researcher, based on the output of the SPSS

From the table above, note that there is a strong correlation between the front office operations and service failure, with the correlation coefficient duo Pearson 0,771 that relationship almost within 77%, which is very important express and reflect the results, obtained previously on the front office operations link Service failure at Al Baz hotel

3.2. Hypothesis testing using unilateral variance analysis ANOVA:

We will test the hypothesis to analysis of variance using a correlation of 0, 05 that accept the hypothesis **H_0**, **H_1**, which include the following:

H_0: there is no effect of front office processes on service failure at the Hotel Al BAZ.

H_1: influence of front office processes on service failure at the Hotel Al BAZ.

To judge the acceptance or rejection of the hypothesis H0 compare Sig value 0, 05 spreadsheet and statistical terms as:

If the value is less Sig 0, 05 reject the hypothesis **H_0**

If the Sig value greater than 0, 05 accept the null hypothesis H_0 .

Addressing this hypothesis gave the results shown in the table below:

 Table 3 : Unilateral variance analysis for the first hypothesis

Modèle	Somme des carrés	Ddl	Carré moyen	Carré moyen	Sig
Régression	11,663	1	11,663	86,656	,000b
Résidu	7,941	59	,135		
Total	19,604	60			

a.variable dépendante : front office

b. Prédicteurs: (Constante), service failure

Source: prepared by the researcher, based on the output of the SPSS

Through the table above we note that, the calculated F value is greater than the value of the indexed F $F_T = > 86.65$ $F_C = 4$ to confirm the more we observe that Sig value equal to 0, 00 and thus is less than 0, 05 and it can reject the hypothesis H _ 0 and H_1 hypothesis, it can be said that the operations of the front office affects the Service failure at the hotel of Al BAZ.

4. Conclusion (Study Results):

This study has shown a number of important results both on the theoretical side or field side, the most important can be summed up.

4.1. The results of the theoretical study:

Summarized the most important results of the theoretical part of this study are as follows:

- services have become a strategic sector must be exploitation;
- the success of the organization is closely linked to the extent of the conduct of the marketing mix expanded;
- The Organization's success is closely linked to how it manage the extended marketing mix;
- the success of the organization is related by how well they manage service operations in order to avoid service failure;

4.2. The results of the field study :

from the field study conducted at the Al - Baz hotel in El Eulma, to test the extent of the contribution of blueprinting, enabling descriptive processing and evidentiary data collected by spss program to reach results next:

Results related to the results of the first test hypothesis: - There is a strong link between the service blueprinting method and service failure where the capacity increase by 77.1%, and therefore there is an impact of the operations of the front office on the service failure.

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