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**CONCURRENT SESSIONS**  
**KEMPINSKI HOTEL CORVINUS**

**Wednesday 8:30 – 12:30**  
**Erzsébet tér 7-8, Budapest V.**

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**REGINA BALLROOM II.**

**Wednesday 11:00 – 12:30**

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## **20.1. QM in Transition and Emerging Economies**

**Session Chair:** *Marcos Bertin, Bertin Quality Consulting, Argentina*

### **11.40 Service Quality of the Moroccan Telecom Operators**

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Dr. Walid Zaramdini joined in September 2008 the School of Business Administration in Al Akhawayn University in Ifrane, Morocco where he is teaching the following courses: Quality Management, Business Decision Making and Operations Management. He got his M.Sc. and Ph.D. from the University of Tsukuba in Japan in March 2000 in the area of Management Science and Engineering. Then he taught for eight years in the United Arab Emirates University in Al Ain. He published papers in the International Journal of Quality and Reliability Management, International Journal of Production Research and in the Journal of the Japan Industrial Management Association. Also Dr. Zaramdini worked as quality manager in a car part manufacturing company (Delphi Automotive) where he had the following responsibilities: implementing the quality assurance system, dealing with the customers' complaints and auditing the suppliers' quality systems.

## **Service Quality of the Moroccan Telecom Operators**

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### **Abstract**

This study deals with the measurement of service quality of the Moroccan telecom operators in the region of Casablanca, which is the economic capital and by far the largest city in Morocco. To the authors' knowledge, this is the first time this type of research is conducted in the North-African region. We want to shed light on the differences between the user's expectations and perceptions of mobile phone companies' service quality. This research was conducted via a structured questionnaire adapted from the SERVQUAL model. Besides the traditional five dimensions (i.e. Tangibles, Reliability, Responsiveness, Assurance and Empathy) of SERVQUAL, we added two more dimensions: Convenience and Network. The primary data was collected from direct contact from a sample of 520 mobile phone users. The total scale reliability is equal to 0.9. The results indicate the importance of Network and Reliability dimensions. Hence, the Moroccan Telecom Operators should work more on improving the quality of their network coverage as well as on providing dependable services.

**Key words:** SERVQUAL, Service quality, Telecom operators, Morocco.

### **1. Introduction**

The telecommunication industry in Morocco is composed of three companies: Maroc Telecom which is the historical operator and has the biggest market share. The second company is Meditel and the third telecom operator is called Wana2. The presence of these three operators makes the telecom sector very competitive comparing to others. These operators are offering different services to more than 23 millions of customers. They are competing against each others in order to attract more customers via offering different services and customizing their offers depending on their clients' needs. Basically, they are providing the same services with same and different technologies, the main services offered are: Land phone communication, mobile phone communication and internet access either ADSL or mobile internet. The telecommunication industry in Morocco is very active, companies tend to offer the most recent services with the

newest technologies in the world, in the recent decade in Morocco the telecom services expanded with the same speed as developed countries and provide all kind of services existing in developed countries such as the ADSL TV, Visio phone, and mobile internet. The three operators are aware that retaining customers is the best strategy to survive in this industry, moreover trying to attract new consumers is a challenge. Customer retention is achieved through customer satisfaction which cannot be reached without services of quality. The assessment of the quality of a service differs from a customer to another, and also differs from the company offering the services to the consumers perceiving the services. Investigating the gaps existing between the expected services and the perceived services from the consumer side is very important for companies since it is crucial in determining which dimensions are important for the consumers and detect the weaknesses of the services. The information can then be used in order to improve the quality of services. This research paper is organized as follow: First, a literature review about the importance of service quality is provided. The second part describes the research methodology. The third part provides an analysis of the data collected. Finally we conclude by deriving managerial implications.

## **2. Literature review**

An important body of research in service quality has been devoted to the development of measures of service quality. SERVQUAL instrument is among the tools developed and is widely valued by academicians and practitioners alike. SERVQUAL is a multiple-item scale questionnaire for measuring consumer perception and was developed by Zeithaml et al. (1996). The perceived quality was defined by Zeithaml (1987) as the consumers' judgment about the entity overall excellence or superiority. The customers' perceived service quality is formed from what they receive as services from the company, and what they expect from the company to offer or what the company should offer regarding the consumers' perception. The gaps in perceived service quality is defined in the literature' as: "the degree and direction of discrepancy between consumers' perceptions and expectations" (Coulthard, 2004). The consumers give rating for the perceived services (P) and the expected services (E), and then a gap of service quality can be calculated. SERVQUAL is used as a service quality tool to investigate the existing gaps of a company services quality with regards to customer service quality needs. SERVQUAL considers

the perceptions of customers with regards to the importance of services; from the company side, it allows the company to improve its services in order to meet the customer's expectations. It was originally designed around five key dimensions which are: Tangibles, Reliability, Responsiveness, Assurance, and Empathy.

- Tangibles dimensions deals with the physical facilities of the service provider; it includes the quality of equipments used, the dress of the employees and the decoration of the service provider location.
- Reliability refers to the ability of the service provider to offer and provide the services perfectly and reliably as promised to the customers.
- Responsiveness is the capability and the willingness of the firms' staff to answer, help and solve customer's requests.
- Assurance: the ability of the company employees to inspire trust and confidence to the customers with regards to the services offered by the company.
- Empathy is related to the ability of the service provide to customize its services depending on the customers' needs and wants.

The model have been later modified and adjusted to fit different situations. For instance adjusted SERVQUAL concerning a research done to assess the passenger rail service quality, in this study three dimensions related to the transportation industry were added and they are: comfort, connection, and convenience. The most recent versions include ten dimensions: Tangibles, reliability, responsiveness, competence, courtesy, credibility, feel secure, access, communication, understanding the consumer. SERVQUAL is used to study the fifth of the following gaps model (please see figure 1).

Coulthard (2004) argued that the tool of service quality measurement is widely accepted. Carillat et al. (2007) investigated the validity of SERVQUAL using 17 studies that applied SERVQUAL and come up with the conclusion that SERVQUAL is an adequate and valid tool to measure the service quality. Alternatives measures of service quality exists in the literature especially SERVPERF and INDSERV. It is important to notice that there are many similarities among SERVQUAL and the other scales in the literature but studies are needed to substantiate whether the alternative scales are superior to SERVQUAL. A review of alternative measures of services quality done by (Lahdari, 2008) has as purpose the identification and the discussion of the

conceptual and empirical issues in measuring service quality with tools other than SERVQUAL.

The benefits of this study will be to identify the existing gaps between the perceived service quality and the expected one from the consumers' perspective. These gaps can be used by the telecom operators in order to reduce customers' dissatisfaction through detecting the weaknesses of the organization.

### **3 Research methodology**

A face to face administrated questionnaire was used to collect data from telecommunications operator's customers at the major places of Casablanca. Respondents were approached in avenues, train station, cafés, and bus stops. Responses were obtained from 520 telecommunication services users. A pilot study has been done within the university with 20 respondents. The objective of the pilot study was to review the questions in term of wording, to asses the degree of clarity of the questions and to know how much time is needed to fill the survey. The experience was helpful, minor modifications were needed. The pilot study was conducted in French. A random sampling technique was chosen since there are a lot of similarities within the users of telecom services. Concerning the questionnaire design, it was based on the initial SERVQUAL questionnaire. The SERVQUAL questionnaire includes initially 22 statement of measure of service quality for the five dimensions: tangibles, reliability, assurance, empathy and responsiveness. For each question a 5 point Likert-scale was used to measure the degree of satisfaction for perceived and expected services. The questions have been reviewed in order to fit the telecommunication environment and two set of questions were added. They reflected two dimensions related to telecommunication services (network, convenience and value for money issues). The adjusted SERVQUAL is now composed of 8 dimensions which are tangibles, reliability, assurance, empathy, responsiveness, network, convenience and value of money. So the final questionnaire includes 29 statements (where 22 statements were adjusted from the initial SERVQUAL), and one question about the overall quality assessment. The respondent answer to each question twice: the expected quality of services and the second time the perceived quality of services and give a score from 1 to 5 on each question going from very satisfied to very dissatisfied. Other questions related to the customers (age, income, occupation,

and telecom operator) have been added.

#### 4 Data analysis

##### 4. 1 Descriptive statistics

From the data collected (518 questionnaires) we had a 283 male respondents versus 237 female respondents. Also more than 50 % of the respondents were between the 31 and 45 years old and 39% were between 18 and 30 years old. More than 40% of the respondents had a university degree and more than 60% of the respondents are employed. Concerning the telecommunication operator of the respondents, the results shows that 54.8% of the respondents have Maroc Telecom as a main operator while 33.3 % are using Meditel services and 11.9% are using Wana services.

Attribute	Data
Gender	Male: 54.2% Female: 45.8%
Age	More than 60: 0.4%; Between 45 and 60: 10.2%; Between 31 and 45: 50.2%; Between 18 and 30: 39%
Education	Postgraduate: 8.1%; Bachelor: 32.8%; High-school: 57.3%
Occupation	Employed: 59.3%; Self employed: 12.5%; Student: 10.2%; Other: 16.8%
Income	More than 20 kMAD: 2.5%; Between 10 and 20 kMAD: 4.6%; Between 5 kMAD and 10 kMAD: 17.6%; Less than 5 kMAD: 64.1%
Telecom operator	Maroc telecom: 55%; Meditel: 33%; Inwi: 12%
Type of Service	Pre-paid GSM: 57.1%; GSM: 23.2%; Phone (land line): 13.5%; Internet: 6.2%

**Table 1. Respondents attributes**

## 4.2 Factorial analysis

Dimension (gap)	Reliability coefficient	Number of items
Tangibles	.844	4
Reliability	.835	5
Responsiveness	.843	4
Assurance	.757	4
Empathy	.667	3
Network	.740	3
Convenience	.713	4
All	0.902	27

**Table 2. Factors' Reliability**

So the dimension verification led to a high reliability factors.

Factors	Min	Max	Mean	Std. Dev
Network	-.33	3.67	<b>1.9024</b>	.84190
Reliability	-.40	3.80	<b>1.8598</b>	.85465
Assurance	-.50	3.75	<b>1.8438</b>	.88682
Responsiveness	-.75	4.00	<b>1.8377</b>	1.03866
Convenience	-.325	4.00	<b>1.8247</b>	.80493
Empathy	.00	4.00	<b>1.7912</b>	.82041
Tangibles	-.25	4.00	<b>1.7304</b>	1.01463

**Table 3. GAP means**

The mean values of the different factors show that consumers in general are dissatisfied with the Moroccan telecom operators as the values are positive (Expectation is higher than Perception) and the results of a t-test analysis (H0: The mean is different from zero) are significant.

## 5 Conclusion

Moroccan telecom operators should benefit from the above study by investigating the root causes of their customers dissatisfaction specially they should ask themselves why the network coverage and their services reliability are lacking behind. However we should mention that this study is limited geographically as it was conducted in the area of Casablanca.

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