The Study of the Application Extent of Marketing Research Concepts and Principles in the Algerian Economic Companies

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The main objective of this work is to study the role and importance of applying the concepts and principles of marketing research during the planification and control of marketing activity. To achieve this goal, authors discussed the theoretical framework of the study, which included the following approaches: marketing research and marketing research steps. Authors then tried to find out the potential impact of marketing research concepts and principles on the planification and control process of marketing activity in Algerian companies through the selection of a sample composed of 15 companies operating in the industrial zones located in M’sila and Bordj Bou Arreridj in Algeria, by focusing on the category of managers; because they are the decision-makers in companies. For this purpose, authors adopted the questionnaire as an essential tool. And in order to obtain meaningful results, authors adopted the statistical method through a set of indicators, such as Arithmetic average, Student’s, Fisher, and Chevy tests. The study reached the achievement of an important part of the general hypothesis; it has been shown that there are acceptable preparations in the studied sample of managers regarding their recognition of the great role played by marketing research in the planification and control of marketing activity in their companies.

Keywords: marketing research, marketing planification, marketing control

Background of the Study

The presence of competition in the market economy is the result of the presence of a large number of companies that offer their products and services across the different world markets, relying on marketing as the most important means to ensure the spread and promote them and their products. In front of this situation, marketing men face the problem of taking a large number of marketing decisions related to the planification and implementation of marketing activities aspects. Most of these decisions have an impact on the companies and the future of their products and are perceived in some way by consumers and distributors. These decisions have a clear impact on the success of the company.

Of course, these decisions should be based on a set of informations and facts about the market and the marketing environment through which marketing works. The effectiveness of marketing decisions and even the effectiveness of the company in this area depend on the validity and accuracy of data and information
collected from the market.

Marketing research is one of the most important methods to obtain marketing information. Hence, marketing research is a part of a broader and more comprehensive system, which is marketing information system, because marketing research reflects those efforts made in order to collect, record, and analyze data of the marketing problems facing the administration, which relate to the flow of goods and services from production centers to markets, in order to help business managers in decision making on the basis of the study and the careful analysis of informations on the problems they face, thus avoiding reliance on guesswork and error in making decisions. In this context, this study is an attempt to monitor the preparations of the managers of a sample of Algerian economic companies to adopt marketing concepts and research while taking the marketing and administrative decisions.

The Problematic

Based on the foregoing, we can formulate the research problem as follows:

How important is the application of the concepts and principles of marketing research in the Algerian economic companies during the planification and control of marketing activity?

Accordingly, the problem of the research is centered on the following partial questions:

1. What is meant by marketing research? And what are its steps?
2. To what extent the managers of Algerian companies are ready to adopt the concept and principles of marketing research?
3. Are there any statistically significant differences attributed to the general data related to the members of the studied sample regarding their recognition of the concept and principles of marketing research?

Hypothesis

Based on the research problem, the hypothesis can be put forward as follows:

1. We predicted that it is widely recognized by the managers in the companies under study of the importance of adopting the concept and principles of marketing research in their companies during the planification and control of marketing activity;
2. We predicted that there are statistically significant differences attributed to the general data related to the members of the studied sample regarding their recognition of the importance of the existence of marketing research concepts and principles within their companies.

Objectives of the Study

This study aims at:

1. Highlighting a number of marketing concepts that have become the basics of many of the most important researches in marketing, such as marketing research, marketing strategy, marketing mix, marketing planification, marketing environment, competition, marketing control, etc.;
2. Studying the applicability of the Algerian companies of the principles of marketing research during the planification and control process of marketing activities;
3. Highlighting the types of marketing information that marketing research provides to marketing decision makers in the Algerian economic companies, which are used in the planification and control of marketing activities;
4. Highlighting the most important and scientific methods used by the marketing research device during the collection of marketing informations;
(5) Highlighting the most important basic steps of marketing research in order to make marketing decisions;

(6) Adding a new set of suggestions that will help to successfully introduce the concept of marketing research to Algerian companies, in order to increase the market share and achieve competitive advantage resulting from the quality of goods and services provided to customers.

Methodology of Study

Method. In order to analyze our research topic, we have adopted two main approaches. These two approaches are: descriptive analytical approach and case study methodology.

Study tools. In order to achieve the objectives of our study, we used a set of methods and tools to gather sufficient informations and to analyze the extent to which managers in the companies under study understood the importance of applying the concepts and principles of marketing research in the planification and control of marketing activity. These methods are: questionnaire, unstructured interview, and observation.

We have adopted the Likert scale five-Dimensional, and in order to analyze the phrases included in the questionnaire according to these dimensions, we adopted the order of the arithmetic averages of the paragraphs to measure the possibility of adopting the studied approach in the field of study, as follows:

- Strongly disagree: Average less than 1;
- Disagree: Average from 1 to less than 2;
- Don’t know: Average from 2 to less than 3;
- Agree: Average from 3 to less than 4;
- Strongly agree: Average from 4 to less than 5.

As for the validity of the questionnaire, this was confirmed by the validity of the content, by presenting it to a group of specialists in: statistics, methodology, and marketing, where they expressed their opinions and observations, which was based on a number of aspects, including:

(1) The extent to which the paragraph corresponds to the axis under which it falls;
(2) The accuracy and integrity of the wording (language formulation) of the questionnaire;
(3) Suggesting additional important paragraphs to measure the questionnaire axis.

In order to verify the stability of the questionnaire, we calculated its stability rate by distributing it to an experimental sample that belongs to the research sample. This sample was estimated to 18 individual, depending on the test-re-test method with a difference of three weeks between the first and second applications, in order to calculate the stability coefficient for the responses of the sample members in the first application with those of the second application. The general stability coefficient was estimated at 0.94 which is an excellent and sufficient value to indicate the stability of the questionnaire.

Study population and sample. The research population consists of the managers of private and public companies of various types (service, productivity, small, medium, large, etc.), which are located and active in the industrial areas of M’Sila and Bordj Bou Arreridj in Algeria. In this context, the size of our sample at the companies level was 15 private and public companies, and the size of the sample studied related to the number of managers questioned, they accounted for more than 50% of the total number of managers working in 15 companies randomly selected among the companies active in the industrial areas of M’Sila and Bordj Bou Arreridj. In total 165 questionnaires were distributed and 161 were retrieved containing four with an incomplete filling, thus the number settled to 157 questionnaires.
As for the questionnaire axes, it included two main axes:

1. General data axis related to the members of the research sample, including the company legal nature, respondents career level, age, experience, and educational level;
2. An axis for testing the extent to which the manager’s category understands the concepts and principles of marketing research in the companies under study.

**Literature Review**

In this part we will try to define marketing research and its different steps:

**Concept of Marketing Research**

Research is a systematic and objective investigation of a subject or problem in order to discover relevant information or principles. It can be considered to be either primarily fundamental or applied in nature. Fundamental research, frequently called basic or pure research, seeks to extend the boundaries of knowledge in a given area with no necessary immediate application to existing problems, for example, the development of a research method that would be able to predict what people will be like x years in the future. In contrast, applied research, also known as decisional research, attempts to use existing knowledge to aid in the solution of some given problem or set of problems.

Marketing research assists in the overall management of the marketing function. A marketing manager must prioritize the more important and pressing problems selected for solution, reach the best possible solution based on the information available, implement the solution, modify the solution when additional information so dictates, and establish policy to act as a ready-made solution for any recurrence of the problem.

Marketing research often focuses on understanding the “Customer” (purchasers, consumers, influencers), the “Company” (product design, promotion, pricing, placement, service, sales), and it can be also expanded toward the environment to include “Competitors” (and how their market offerings interact in the market environment) (Smith & Albaum, 2010, p. 1).

Peter Chisnall pointed out that although the term “market research” is now largely used as a synonym for “marketing research”, there was originally a distinct difference between the scope of the activities they covered. Some confusions have been caused by the term “market research” being rather freely used to describe the full range of activities properly covered by marketing research. Chisnall noted, however, that market or marketing research is essentially about the disciplined collection and evaluation of specific data in order to help suppliers understand their customers’ needs better. Moreover, since decision making necessarily involves some elements of risk, the collection and evaluation of such data should be used to reduce and control, to some degree, the parameters of risk surrounding particular marketing proposals.

Marketing research is defined by the American Marketing Association as:

Marketing research is the function that links the consumer, customer and public to the marketer through information—information used to identify and define marketing opportunities and problems; generate, refine, and evaluate marketing actions; monitor marketing performance; and improve understanding of marketing as a process. Marketing research specifies the information required to address these issues; designs the method for collecting information; manages and implements the data-Collection process; analyzes the results; and communicates the findings and their implications. (Proctor & Jamieson, 2012, p. 4)

The European Society for Opinion and Marketing Research (ESOMAR) defines marketing research as follows:
Marketing research is a key element within the total field of marketing information. It is the consumer, customer, and public to the marketer through information which is used to identify and define marketing opportunities and problems; to generate, refine and evaluate marketing actions; and to improve understanding of marketing as a process and of the ways in which specific marketing activities can be made more effective. Marketing research specifies the information required to address these issues; designs the method for collecting information; manages and implements the data collection process; analyses the results; and communicates the findings and their implications. (Shukla, 2008, p. 16)

Also, marketing research can be defined as follows (“Tutor2u™—Marketing Research Toolkit—2004”, n.d., pp. 6-7):

The systematic gathering, recording, and analysing of data about problems relating to the marketing of goods and services:

- Systematic: Using an organised and clear method or system;
- Gathering: Knowing what you are looking for and collecting appropriate information;
- Recording: Keeping clear and organised records of what you are trying to find out;
- Analysing: Ordering and making sense of your information in order to draw out relevant trends and conclusions;
- Problems relating to marketing: Finding out the answers to questions that help the business to better understand its customers and other details about the marketplace.

Marketing research can help a business do one or more of the following (“Tutor2u™—Marketing Research Toolkit—2004”, n.d., p. 5):

**Gain a more detailed understanding of consumers’ needs.** Marketing research can help firms to discover consumers’ opinions on a huge range of issues, e.g., views on products’ prices, packaging, recent advertising campaigns.

**Reduce the risk of product/business failure.** There is no guarantee that any new idea will be a commercial success, but accurate and up-to-date information on the market can help a business make informed decisions, hopefully leading to products that consumers want in sufficient numbers to achieve commercial success.

**Forecast future trends.** Marketing research not only can provide information regarding the current state of the market, but also can be used to anticipate customers’ needs for future customer needs. Firms can then make the necessary adjustments to their product portfolios and levels of output in order to remain successful.

**Marketing Research Steps**

As shown in Figure 1, the research process begins with the identification. The research task may clarify a problem or define an opportunity. The clearcut statement of problem may not be possible at the very outset of research process as often only the symptoms of the problem are apparent at that point. Thus the problem statement may be made only in general terms to be made specific later after some exploratory research has been done to clarify the problem situation (“Marketing Research: Concepts and design”, n.d., pp. 7-9):

**Defining the problem.** Clear problem definition is of crucial importance in marketing research as in terms of both time and money research is a costly process. Careful attention to problem definition allows the researcher to set the proper research objectives which in turn facilitate relevant and economic data collection. Problem definition in specific terms must precede the determination of the purpose of the research.

In order to define the problem more precisely, some sort of exploratory research may also be undertaken. The methods popularly in use are survey of secondary data, experience survey, or pilot studies.
**Statement of research objectives.** After clarifying and identifying the research problem with or without exploratory research, the researcher must make a formal statement of research objectives. Research objectives may be stated in qualitative or quantitative terms and expressed as research question statements or hypothesis. For example, the research objective “To find out the extent to which the sales promotion programmes affected sales” is a research objective expressed as a statement. A hypothesis on the other hand is a statement that can be refuted or supported by empirical findings. The same research objective could be stated as: “To test the hypothesis that sales are positively affected by the sales promotion programme undertaken this summer”. Example of another hypothesis may be “Concentrating advertising efforts in monthly waves (rather than advertising continuously) would cause an increase in sales and profits”. Once the objectives or the hypothesis are developed, the researcher is ready to choose the research design.

**Planning the research design.** Once the research problem has been defined and the objectives decided, the research design must be developed. A research design is a master plan specifying the procedure for collecting and analysing the needed information. It represents framework for the research plan of action. The objectives of the study discussed in the preceding step are included in the research design to ensure that data collected are relevant to the objectives. The researcher must, at this stage, also determine the type of sources of information needed, the data collection methods (surveys or interviews for example), the sampling methodology, and the timing and possible costs of research. The design chosen may be from exploratory, descriptive, quasi-experimental, or experimental design categories which again include a number of alternative methods.

**Planning the sample.** Although the sample plan is included in the research design, the actual sampling is a separate and important stage in the research process. Sampling involves procedures that use a small number of items or parts of the population to make conclusion regarding the whole population. The first sampling question that needs to be asked is who is to be sampled, which follows from what is the target population. Defining the population may not be as simple as it seems. For example, if you are interested in finding the association between savings and loans, you may survey the people who already have accounts and the selected sample will not represent potential customers.

The next important issue is regarding sample size. How large or how small should a sample be? Generally speaking, larger samples give more reliable information then smaller ones, but if probability sampling is used, a small proportion of the population may give a reliable measure of the universe.

**Data collection.** The data collection process follows the formulation of research design including the sampling plan. Data which can be secondary or primary can be collected using variety of tools. These tools are classified into two broad categories, the observation methods and the communication methods, all of which have their inherent advantages and disadvantages.

**Data processing and analysis.** Once the data have been collected, it has to be converted to a format that will suggest answers to the problem identified in the first step. Data processing begins with the editing of data and coding. Editing involved inspecting the data collection forms for omission, legibility, and consistency in classification.

Before tabulation, responses need to be classified into meaningful categories. The rules for categorising, recording, and transferring the data to data storage media are called codes. The coding process facilitates the manual or computer tabulation. If computer analysis is being used, the data can be key-punched and verified.

Analysis represents the application of logic to the understanding of data collected about the subject. In its simplest forms, analysis may involve determination of consistent patterns and summerising of appropriate details. The appropriate analytical techniques chosen would depend upon informational requirements of the
problem, characteristics of the research designs, and the nature of the data gathered. The statistical analysis may range from simple univariate analysis to very complex multivariate analysis. You will study univariate, bivariate, and multivariate analysis and their applications in marketing problem in last three blocks of this course.

**Formulating conclusion, preparing & presenting the report.** The final state in the research process is that of interpreting the information mid drawing conclusions for use in managerial decisions. The research report should effectively communicate the research findings and need not necessarily include complicated statements about the technical aspect of the study and research methods. Often the management is not interested in details of research design and statistical analysis but in the concrete findings of the research. If executives are to act on these findings, they must be convinced of the value of the findings. Researchers, therefore, must make the presentation technically accurate, understandable, and useful.

Frequently, the researchers are required to make both an oral and a written presentation. Since each project is different, the presentation in each case requires originality. However, the better the earlier steps in the research process have been executed, the more likely it is that a good presentation would result. While the oral presentation depends a great deal on the personal style of the presenter and the management expectation, the written report in order to be effective needs to include the following details:

1. Title page;
2. Table of contents;
3. Introduction;
4. Statement of objectives;
5. Methodology (Research design, Data collection methods, Sampling, Field work, Analysis and interpretation);
6. Limitations;
7. Findings;
8. Conclusion and recommendations;
9. Appendix (Copies of forms used, Tables not included in finding, Bibliography if relevant).

![Diagram of the marketing research process](http://dl4a.org/uploads/pdf/Unit-1.pdf)

*Figure 1. Stages in the marketing research process (Source: Anonymous, "Marketing research: concepts and design: unit 1 marketing research-meaning and importance" (p. 7). Retrieved from http://dl4a.org/uploads/pdf/Unit-1.pdf).*
Statistical Analysis of the Questionnaire Axes

Public Data Analysis Axis (Personal Data)

Analysis of the characteristics of the sample according to the legal nature variable. The sample of the study included a group of public and private companies, randomly selected among the companies in the study area, as shown in the following table (see Table 1):

Table 1
Distribution of the Members of the Sample According to the Company Legal Nature Variable

| Company legal nature | Duplicates | Percentage |
|----------------------|------------|------------|
| Public               | 40         | 25.5       |
| Private              | 117        | 74.5       |
| **Total**            | **157**    | **100**    |

Source: Prepared by researchers depending on the questionnaire data.

The table above shows that the members of the studied sample were distributed to both public and private companies. We note through this table that the percentage of managers belonging to the category of private companies was predominant, with 74.5%, while the percentage of public companies was 25.5%. The main reason for these differences is due to the large spread of the first type of companies (private companies) in Algeria in general and in the industrial areas in particular.

Analysis of the characteristics of the sample according to the function variable. Our research sample belongs to the category of managers (tires and high tires), who work in the public and private companies under study. This category is divided into three categories: the company director, the department head, or the administrative. The results were as shown in the following table (see Table 2):

Table 2
Distribution of the Members of the Sample According to the Function Variable

| Function type     | Duplicates | Percentage |
|-------------------|------------|------------|
| Director          | 7          | 4.5        |
| Department head   | 56         | 35.7       |
| Administrative    | 94         | 59.9       |
| **Total**         | **157**    | **100**    |

Source: Prepared by researchers depending on the questionnaire data.

The above table shows that the percentage of those who are assigned with administrative tasks is different from that of the directors of the company or its departments; they constituted the majority with 59.9%. This category consists mainly of employees in the secretariat, accounting and sales assistants, supervisors of working teams, and laboratory officials at some companies. While the heads of departments constituted 35.7% of the tires. In contrast, the percentage of directors was about 4.5%, i.e., seven directors among 15. We note that we have made great efforts to obtain the opinions of this category regarding the questionnaires phrases, as it is supposed to be the initiative to plan and control the marketing activity and convinced the need to use marketing research in it.

Analysis of the characteristics of the sample according to the age variable. We have formed age groups for the sample of the study, which are divided into three categories: The first is the category under the age of 30 years, the second is the category from 30 to 50 years, and the third is the category over 50 years. The
main objective of the study of this variable was to know the age levels of the human composition of the companies under study and thus attempt to discover the level of human energies available and reliable in leading the affairs of this type of companies. The results were as shown in the following table (see Table 3):

Table 3

*Distribution of the Members of the Sample According to the Age Variable*

| Age             | Duplicates | Percentage |
|-----------------|------------|------------|
| Less than 30 years | 63         | 40.1       |
| From 30 to 50 years | 85         | 54.1       |
| More than 50 years | 9          | 5.7        |
| **Total**       | **157**    | **100**    |

Source: Prepared by researchers depending on the questionnaire data.

The above table shows that young people are the ones who supervise most of the administrative tasks, with 94.2%, while the percentage of people over the age of 50 does not exceed 5.7%, which is consistent with the concept of leadership based on the youth category who make great efforts to create their projects, on the one hand, and with the efforts of the Algerian state towards the establishment of independent projects on the other hand.

**Analysis of the characteristics of the sample according to the professional experience variable.** In our analysis of the experience variable in the companies under study, we relied on dividing experience into three categories. The first category is where the manager’s experience does not exceed five years, the second category is between five and 15 years, and the third category is where the managers exceed 15 years of experience. This is illustrated in the following table (see Table 4):

Table 4

*Distribution of the Members of the Sample According to the Professional Experience Variable*

| Professional experience | Duplicates | Percentage |
|-------------------------|------------|------------|
| Less than 5 years       | 76         | 48.4       |
| From 5 to 15 years      | 39         | 24.8       |
| More than 15 years      | 42         | 26.8       |
| **Total**               | **157**    | **100**    |

Source: Prepared by researchers depending on the questionnaire data.

We note through this table that 48.4% of the members of the sample studied have less than five years of experience, while 24.8% have from five to 15 years of experience. In contrast, those with long experience (exceeding 15 years) constitute 26.8%. The above percentages indicate that the level of expertise of the studied majority is not great and this is due to the age levels of this sample; the study shows that 40.1% of the members of the studied sample does not exceed the age of 30 years.

**Analysis of the characteristics of the sample according to the educational level.** It is assumed that the higher the educational level of the members of the company is, the greater the capacity and the ability to adopt whatever is in the interest of their company of new management approaches as well as enable them to carry out their functions and benefit from their intellectual abilities are; for this purpose we put this variable to ascertain later its impact on the sample members options. The following table shows the analysis of the characteristics of the sample according to the educational level (see Table 5).
Table 5

Distribution of the Members of the Sample According to the Educational Level Variable

| Educational level | Duplicates | Percentage |
|-------------------|------------|------------|
| Primary           | 0          | 0          |
| Intermediate      | 0          | 0          |
| Secondary         | 40         | 25.5       |
| University        | 117        | 74.5       |
| Total             | 157        | 100        |

Source: Prepared by researchers depending on the questionnaire data.

From the above table, it is clear that the educational level of the majority of the studied sample is the university level, with 74.5%, while the remaining percentage of the sample (25.5%) has a secondary level. For the primary and intermediate levels, we did not find any one belonging to these two levels.

Analysis of Questionnaire Phrases

Statistical analysis of the axis phrases. This axis consists of 13 phrases, which reflect a set of requirements and necessary concepts to conduct marketing research according to scientific standards, and thus the possibility of achieving the company’s goals as a result of the application of this concept. We will rely in the analysis of this axis data on the expense of the duplicates and percentages of the responses, the arithmetic averages, the standard deviations, and the symmetry coefficient. The results of the statistical analysis of the axis phrases were as shown in the following table (see Table 6):

Table 6

The Use of Statistical Indicators Related to the Extent to Which Managers Adopt Marketing Concepts and Research in Their Companies at the Level of the Field of Study

| Number phrases (variables) | Answers | Arithmetic average | Standard deviation | Skewness coefficient |
|----------------------------|---------|--------------------|--------------------|----------------------|
| 1  | Marketing research is a key component of marketing activity | 2 1.3 5 3.2 4 2.5 65 41.4 81 | 51.6 4.39 | 0.7980 -1.815 |
| 2  | Marketing research helps in solving marketing problems and making the right decisions in your company | 3 1.9 9 5.7 7 4.5 83 52.9 55 | 35.0 4.13 | 0.885 -1.446 |
| 3  | Marketing research contributes in supporting the marketing information system with the necessary data to make marketing decisions | 4 2.5 4 2.5 6 3.8 86 54.8 57 | 36.3 4.20 | 0.835 -1.723 |
| 4  | Marketing research is a means of collecting and analyzing data | 2 1.3 5 3.2 4 2.5 76 48.4 70 | 44.6 4.32 | 0.785 -1.677 |
| 5  | Effective marketing decision making requires setting goals for marketing research | 6 3.8 10 6.4 7 4.5 74 47.1 60 | 38.2 4.10 | 1.011 -1.474 |
By observing the above table, we note that the members of the studied sample have clear views on these variables. This is evidenced by the arithmetic average, the standard deviation, and the coefficient of symmetry; because most of the members agree with the large categories (4 and 5) (Agree and Strongly agree). We will try to find out these opinions and analyze them, phrase by phrase through the following:

(1) The majority of the members of the sample considered that marketing research is a key component of marketing activity. This is confirmed by the value of the arithmetic average, which is estimated at 4.39, with a simple standard deviation of 0.798. For the recorded percentages, we note that 41.4% of the members of the studied sample agrees with this idea and 51.6% of the sample concerned consider that marketing research is an important element in marketing activity, because they fully agree with this idea. This is evidenced by the value of the negative coefficient of symmetry, estimated at -1.815, which indicates that large groups (4 and 5) are prevalent;

(2) The majority of the members of the sample considered that marketing research helps in solving marketing problems and making the right decisions in their companies, because 35.0% of the members of the

|   | The determination (planification) of the marketing research sample is an important step for activating decisions | 8 | 5.1 | 12 | 7.6 | 11 | 7.0 | 79 | 50.3 | 47 | 29.9 | 3.92 | 1.065 | -1.263 |
|---|-------------------------------------------------------------------------------------------------|---|-----|----|-----|----|-----|----|------|----|------|------|--------|------------------------------|
| 7 | Successful marketing research requires doing a field study | 10 | 6.4 | 14 | 8.9 | 13 | 8.3 | 79 | 50.3 | 41 | 26.1 | 3.81 | 1.116 | -1.129 |
| 8 | The company depends in making marketing decisions on the final report of the marketing research | 5  | 3.2 | 8  | 5.1 | 8  | 5.1 | 76 | 48.4 | 60 | 38.2 | 4.13 | 0.955 | -1.525 |
| 9 | The company relies in making marketing decisions on the informations provided by exploratory research | 10 | 6.4 | 13 | 8.3 | 14 | 8.9 | 78 | 49.7 | 42 | 26.8 | 3.82 | 1.112 | -1.141 |
| 10| Your company relies on office data and documents to make marketing decisions | 15 | 9.6 | 17 | 10.8 | 16 | 10.2 | 70 | 44.6 | 39 | 24.8 | 3.64 | 1.235 | -0.883 |
| 11| Successful marketing decisions in the company refer to the use of quantitative and statistical methods | 6  | 3.8 | 11 | 7.0 | 10 | 6.4 | 60 | 38.2 | 70 | 44.6 | 4.13 | 1.061 | -1.401 |
| 12| Using the survey to collect informations from consumers, contributes to the activation of marketing decisions | 5  | 3.2 | 13 | 8.3 | 15 | 9.6 | 81 | 51.6 | 43 | 27.4 | 3.92 | 0.993 | -1.144 |
| 13| Marketing research helps your company to plan and control marketing activity | 4  | 2.5 | 8  | 5.1 | 21 | 13.4 | 82 | 52.02 | 42 | 26.8 | 3.96 | 0.915 | -1.131 |

Notes. *1: Strongly disagree, 2: Disagree, 3: Don’t know, 4: Agree, 5: Strongly agree; **Skewness: The negative value of the symmetry coefficient means that the large or upper categories (4 and 5) are prevailing, and vice versa if the values are positive, i.e., the lowest categories are prevailing. Source: Prepared by researchers depending on the questionnaire data.
sample indicated that they fully agree with this idea and 52.9% expressed the content of this idea. While the rejection percentage of this idea was 7.6%. As for the neutral percentage ratio, it was estimated at 4.5%. By observing the arithmetic average value (4.13), the standard deviation (0.885) which looks simple, and the coefficient of symmetry (-1.446) which looks negative, the level of acceptance is shown by one party, which is the degree of approval and approval completely;

(3) The contribution of marketing research in supporting the marketing information system with the necessary data to make marketing decisions is essential for most of the members of the studied sample, and this is indicated by the arithmetic average level estimates at 4.2. In this regard, 91.1% indicated their agreement with this idea, while we noted that 5% do not agree;

(4) A total of 146 members of the research sample confirmed that marketing research is an important tool for collecting and analyzing data by 93%. This is evidenced by the arithmetic average which was 4.32 and the standard deviation, which was simple and estimated at 0.785, as well as the coefficient of symmetry through its negative value estimated at -1.677;

(5) 38.2% of the members of the research sample was completely agree that effective marketing decision making requires setting goals for marketing research and 47.1% of the members of the sample agreed with this idea. In contrast, 10.2% of the research managers believe that decisions can be successful without resorting to marketing research, but rather to rely on administrative effort, guessing, and experience;

(6) 29.9% of the members of the sample confirmed their complete agreement on the identification and planification of the marketing research sample and that this will achieve the success of the research and its objectives. Also, 50.3% agreed on this idea. In contrast, the equivalent of 5.1% completely rejected the idea and 7.6% disagreed with it;

(7) 76.4% of the members of the sample indicated that their companies rely heavily on the field study for the success of marketing research. This is reflected in the values of the arithmetic average, standard deviation, and symmetry coefficient, whose values were respectively 3.81, 1.116, and -1.129. In contrast, 15.3% considered that their companies do not resort to field study during the marketing research. Also, the equivalent of 8.3% of the members of the sample indicated that they do not know if their companies rely on the field study while doing marketing research;

(8) 38.2% of the members of the sample indicated that they fully agree that the company depend in making marketing decisions on the final report submitted by the marketing research and 48.4% of the members of the studied sample also agreed with this idea, while this idea did not get the acceptance of 8.3%;

(9) 76.5% of the members of the studied sample indicated that the company relies in making marketing decisions on the informations provided by exploratory research. In contrast, 14.7% of the respondents indicated that their companies do not resort to this kind of research in collecting informations, while we found that the equivalent of 8.9% of the members of the sample do not know if their companies rely on exploratory research in making marketing decisions;

(10) 69.4% of the members of the sample consider that it is necessary for their companies to rely on the office data and documents to collect marketing informations and to use it in making marketing decisions. While 20.4% of the members of the sample believe that it is useless to use the documents and office data to collect marketing informations and in taking effective marketing decisions. In contrast, 10.2% of the members of the sample do not know whether their companies adopt the method of office data in making marketing decisions;
(11) 10.8% of the members of the studied sample believe that the success of marketing decisions in the company is not due to the use of quantitative methods, but rather to the use of other methods. In contrast, 82.8% of the individuals concerned with the study consider that the success of decisions in the company is due to the use of quantitative and statistical methods in data analysis. In this regard, some of the managers and departments heads interviewed said that the marketing decisions taken by them, which were based on a set of quantitative and statistical methods, were effective, successful, and accurate, and this is due to the accuracy of the statistical methods used in the data and information analysis process, gathered on the environment surrounding the company;

(12) 79% of the members of the studied sample considered that their companies rely on the survey method to collect informations from consumers, which would contribute to the activation of marketing decisions in the company, while 11.5% said that the collection of informations about consumers is not done by survey, but through guessing and random analysis of consumers. In contrast, 9.6% of the members of the sample under study do not know how informations about consumers are collected in their companies;

(13) 26.8% of the members of the studied sample completely agreed with the idea that marketing research in their companies helps in the planification and control of marketing activity, which helps in the success of marketing decisions in the company, and 52.02% of the managers agreed on this idea. In contrast, 2.5% of the respondents fully disagree with this idea. In the same context, 5.1% of those concerned with this study disagree with it (the idea). The rest of the members of the sample, which is equivalent to 13.4%, do not know about the importance of marketing research in the planification and control of marketing activity.

The analysis of the differences in the responses of the questionnaire axis. After analyzing the phrases of the axis as a whole, we will now try to ascertain whether there are statistically significant differences in the responses of the sample members due to the general data variables related to the company legal nature, function, age, experience, and educational level. For this, we will depend on the test Student (t) value and the level of significance (Sig.) of each phrase to ascertain whether there are statistically significant differences between the responses of the members of the sample or not. This is illustrated by the following table (see Table 7):

Table 7
The Analysis of the Differences in the Responses of the Questionnaire Axis According to the Variables: Company Legal Nature, Function, Age, Experience and Educational Level, Using the Analysis of the Binary Variation

| N | Phrases                                                                 | Test value = 4 |
|---|------------------------------------------------------------------------|----------------|
|   |                                                                        | Statistical t*| Sig.** (2-tailed) |
| 1 | Marketing research is a key component of marketing activity            | 6.102          | 0.000**           |
| 2 | Marketing research helps in solving marketing problems and making the right decisions in your company | 1.894          | 0.060             |
| 3 | Marketing research contributes in supporting the marketing information system with the necessary data to make marketing decisions | 2.961          | 0.004**           |
| 4 | Marketing research is a means of collecting and analyzing data        | 5.085          | 0.000**           |
| 5 | Effective marketing decision making requires setting goals for marketing research | 1.184          | 0.238             |
| 6 | The determination (planification) of the marketing research sample is an important step for activating decisions | -0.899         | 0.370             |
| 7 | Successful marketing research requires doing a field study            | -2.146         | 0.033**           |
| 8 | The company depends in making marketing decisions on the final report of the marketing research | 1.755          | 0.081             |
By observing the table above, we find that there are significance level values that are less than 0.05. These values are significant for the phrases of the questionnaire axis, which means that there are statistically significant differences between the answers of the members of the sample on the phrases of this axis. In other terms, the members of the studied sample have clear views regarding these variables and we will try to identify these opinions and analyze them, phrase by phrase through the following:

1. There are statistically significant differences at the level of significance \( \alpha = 0.05 \) due to the general data variables, in relation to the first phrase: “Marketing research is a key component of marketing activity”, where the level of significance is equal to 0.000**;

2. There are no statistically significant differences at the level of significance \( \alpha = 0.05 \) due to the five explained variables: company legal nature, job, age, experience, and level of education, in relation to the second phrase: “Marketing research helps in solving marketing problems and making the right decisions in your company”. This is evidenced by the significance level value, which is estimated at 0.060, as shown in table 7 above;

3. There are statistical differences at the level of significance \( \alpha = 0.05 \) due to the general data variables, regarding the third phrase: “Marketing research contributes in supporting the marketing information system with the necessary data to make marketing decisions”, where the level of significance is equal to 0.004**;

4. There are significant differences at the significance level \( \alpha = 0.05 \), in relation to the fourth phrase: “Marketing research is a means of collecting and analyzing data”, which is according to the general data variables, where the value of the level of significance is equal to 0.000**;

5. There are no statistically significant differences at the level of significance \( \alpha = 0.05 \) due to the general data variables, in relation to the fifth special phrase, which states that: “Effective marketing decision making requires setting goals for marketing research”, where the value of the significance level is 0.238;

6. There are no statistically significant differences at the level of significance \( \alpha = 0.05 \) due to the variables of the general data, in relation to the sixth phrase: “The determination (planification) of the marketing research sample is an important step for activating decisions”, where the value of the significance level is 0.370;

7. There were significant differences at the level of significance \( \alpha = 0.05 \) due to the variables of the general data, in relation to the seventh phrase: “Successful marketing research requires doing a field study”, where the significance level in value is 0.033**;

8. There are no statistically significant differences at the level of significance \( \alpha = 0.05 \) due to the five explained variables: company legal nature, function, age, experience, and educational level, in relation to the
eighth phrase: “The company depends in making marketing decisions on the final report of the marketing research”. This is indicated by the significance level value shown in Table 7 above;

(9) There are significant differences in the level of significance ($\alpha = 0.05$) due to the variable of the general data, in relation to the ninth phrase: “The company relies in making marketing decisions on the informations provided by exploratory research”, where the significance level value is 0.046**;

(10) There are significant statistical differences at the level of significance ($\alpha = 0.01$) due to the general data variables, in relation to the tenth phrase: “Your company relies on office data and documents to make marketing decisions”, where the significance level value is 0.000**;

(11) There were no statistically significant differences at the level of significance ($\alpha = 0.05$) due to the general data variables, in relation to the eleventh phrase: “Successful marketing decisions in the company refer to the use of quantitative and statistical methods”. Where the value of the significance level was estimated at 0.134, as shown in Table 7 above.

(12) There were no statistically significant differences at the level of significance ($\alpha = 0.05$) due to the variables of the general data, in relation to the twelfth phrase: “Using the survey to collect informations from consumers, contributes to the activation of marketing decisions”, where the significance level value is 0.298;

(13) There are no statistically significant differences at the level of significance ($\alpha = 0.05$) due to the variables of the general data, in relation to the thirteenth phrase: “Marketing research helps your company to plan and control marketing activity”, where the significance level value is 0.543.

Through the above and by observing the values of the significance level for the first axis phrases, we find that most of them are valuable values. This means that there are statistically significant differences between the responses of the sample members on the phrases of this axis. In other terms, the members of the studied sample have clear views on these variables.

**Variances Analysis**

In order to know in favor of who were the statistical differences in terms of the questionnaire axis, we measured the significance level of the axis as a whole. This is in order to facilitate the analysis process and then we used the Scheffe dimension test for the whole axis according to the explanatory criteria with the significant indicators, as shown below:

**The variances analysis test of the whole axis, according to the company legal nature variable to detect statistical differences.** Table 8 shows the variance analysis using the ANOVA (Analysis of Variance) test:

Table 8

|                  | F    | Sig.  |
|------------------|------|-------|
| Between groups   | 0.731| 0.394 |

Source: Prepared by researchers depending on the questionnaire data.

It is clear from the table above that the value of the significance level is 0.394, from which we find that the values are not significant. So there are no statistically significant differences between the responses of the two categories (private and public companies) members, related to the whole questionnaire.

**The variances analysis test of the whole axis, according to the function variable to detect statistical differences.** Table 9 shows the variance analysis using the ANOVA test:
It is clear from the above table that the value of the significance level is 0.000, which is less than 0.05, which means that the test is significant. Therefore, there are statistically significant differences between the answers of the members of the sample, distributed by categories of function in relation to the whole questionnaire axis. And to know in favor of who were those differences, we used the Scheffe post-test (see Table 10):

Table 10
The Scheffe Post-Test Applied to the Whole Questionnaire Axis According to the Function Variable to Detect the Statistical Differences

| Sig.  | Function (J) | Function (I) |
|-------|--------------|--------------|
| 0.7180| 2            | 1            |
| 0.000 | 3            | 1            |
| 0.718 | 1            | 2            |
| 0.000 | 3            | 2            |
| 0.000 | 1            | 3            |
| 0.000 | 2            | 3            |

Source: Prepared by researchers depending on the questionnaire data.

It is clear from the above table that the value of the significance level for categories (1) and (2) is 0.718, which is greater than 0.05, indicating that the values are not significant. Therefore, there are no differences in the answers of the members in categories (1) and (2). While the significance level of each of the categories (1) and (2), with the category (3) respectively were 0.000, 0.000. This indicates the existence of statistically significant differences in the responses of this category from the categories (1) and (2), and therefore, the category (3) is distinguished from categories (1) and (2). This means that the responses of the administrative category were different from the responses of the directors and heads of department’s categories. This is confirmed by the Table 13.

The variances analysis test of the whole axis, according to the age variable to detect statistical differences. Table 11 shows the variance analysis using the ANOVA test:

Table 11
Variance Analysis Using ANOVA Test

|          | F       | Sig.  |
|----------|---------|-------|
| Between groups | 19.660  | 0.000 |

Source: Prepared by researchers depending on the questionnaire data.

It is clear from the above table that the value of the significance level is 0.000, which is less than 0.05, which means that the test is significant at the significance level (5%), and therefore there are statistically significant differences between the answers of the sample members, distributed by categories of age in relation to the whole questionnaire axis. And to know in favor of who were those differences, we used the Scheffe post-Test:
Table 12
The Scheffe Post-Test Applied to the Whole Questionnaire Axis According to the Age Variable to Detect the Statistical Differences

| Sig   | Age (J) | Age (I) |
|-------|---------|---------|
| 0.000 | 2       | 1       |
| 0.000 | 3       | 1       |
| 0.000 | 1       | 2       |
| 0.130 | 3       | 2       |
| 0.000 | 1       | 3       |
| 0.130 | 2       | 3       |

Source: Prepared by researchers depending on the questionnaire data.

It is clear from the above table that the value of the significance level for categories (3) and (2) is equal to 0.130, which is greater than 0.05, indicating that the values are not significant and therefore there are no differences in the answers of the (3) and (2) categories members. While the significance level of each of the categories (3) and (2), with the category (1) respectively were 0.000, 0.000. This indicates the existence of statistically significant differences in the responses of the category (1) from the categories (3) and (2), and therefore, the category (1) is distinguished from categories (3) and (2). This means that the responses of the junior managers group, who are under the age of 30 years, are distinct from the responses of the older persons that are over the age of 30 years.

The variances analysis test of the whole axis, according to the experience variable to detect statistical differences. Table 13 shows the variance analysis using the ANOVA test:

Table 13
Variance Analysis Using ANOVA Test

|         |      | Sig. |
|---------|------|------|
| Between groups | 48.896 | 0.000 |

Source: Prepared by researchers depending on the questionnaire data.

It is clear from the above table that the value of the significance level is 0.000, which is less than 0.05, which means that the test is significant at the significance level (5%). Therefore, there are statistically significant differences between the answers of the sample members, distributed by categories of experience in relation to the whole questionnaire axis. And to know in favor of who were those differences, we used the Scheffe post-test of the whole axis according to the explained criteria with the significant indicators as shown in the following table (see Table 14):

Table 14
The Scheffe Post-Test Applied to the Whole Questionnaire Axis According to the Experience Variable to Detect the Statistical Differences

| Sig  | Experience (J) | Experience (I) |
|------|----------------|----------------|
| 0.000 | 2              | 1              |
| 0.000 | 3              | 1              |
| 0.000 | 1              | 2              |
| 0.023 | 3              | 2              |
| 0.000 | 1              | 3              |
| 0.023 | 2              |                |

Source: Prepared by researchers depending on the questionnaire data.
The table above shows that the significance level for the categories (1), (2), and (3) is less than 0.05, which means that all these values are significant, and therefore there are statistically significant differences in the answers of these categories members.

The variances analysis test of the whole axis, according to the educational level variable to detect statistical differences. Table 15 shows the variance analysis using the ANOVA test:

Table 15
Variance Analysis Using ANOVA Test

| Source: Prepared by researchers depending on the questionnaire data. |
|---------------------------------------------------------------|
| Sig. | F  |
|------|----|
|      | 0.000 |
| Between groups | 159.521 |

It is clear from the table above that the value of the significance level is 0.000, which means that the values are significant. This explains the existence of statistically significant differences between the responses of the (3) and (4) categories members, related to the whole questionnaire.

Conclusions

The study reached a number of results, which we list as follows:

1. The study showed a relative proof of the general hypothesis; it was found that the managers of the Algerian economic companies were aware of the importance of applying the concepts and principles of marketing research in the planification and control of marketing activities at the field of study;

2. There are statistically significant differences due to the general data related to the members of the studied sample regarding the recognition of the managers of the studied companies of the importance of applying the concepts and principles of marketing research while solving marketing problems and making marketing decisions. These differences were more significant for the age variable, experience, and educational level in the first place, and then the function variable and the legal nature of the company.

The study also presented a number of suggestions to the supervisors of the companies under study summarized in the following:

1. The need for managers in the companies under study to consider the process of self-education and development in order to obtain sufficient knowledge of the most important fundamentals concerning marketing research, related to methods and ways used in the collection of informations by marketing research, quantitative methods used in the analysis process, the statistical models, etc., because this would clarify the importance of these concepts and their role in the processes of supporting the right and accurate marketing decision;

2. The need to develop specific training programs, focusing on the principles of marketing activity, based on the method of highlighting the experiences of leading organizations that have adopted successful approaches in the field of marketing and marketing research, with an explanation of the approved models and the results achieved by them;

3. The need to involve all categories in companies during the planification of marketing activity, within the limits of their functional levels, and this is in order to reflect the culture of marketing planification in all members of companies, which helps later to speed planification and decision making;

4. The university research in the fields of marketing research, marketing studies, marketing planification, and marketing control should be used, as well as the need to give the opportunity to the students and
researchers who wish to conduct field research on these topics at the level of the company and to benefit from them while they are in the field by presenting administrative and marketing problems for them;

(5) The leaders of the studied companies should work to free themselves from the traditional methods of management, reduce barriers between departments, and disseminate the work with team spirit and foundations of dealing;

(6) The companies under study must rely more on information technology and train their personnel to use them to develop their capabilities and improve their marketing performance.

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