ATTITUDE OF NATIONAL CASH REGISTER (NCR)
EMPLOYEES TO FLEXITIME

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CHAPTER I

INTRODUCTION

Throughout history, the Lebanese people have been famous for acquiring novelties from abroad and implementing these ideas in their own country. However, in the field of personnel management there has been little efforts to introduce new organizational concepts that may revive or motivate the work force.

Time Management Concept

Worldwide, time management has generated a lot of discussions over the past 20 years. The phrase "time management" may actually be a conflict in terms. You can't manage time. It has a will of its own. It can't be changed or stopped. It is unwavering and impartial. The apparently irrational reasons for managing time show that the real issue is not time management, but managing change. People are sometimes asked to change their ways of working even though this will hurt their performance. Of course, some changes might be beneficial, but the resistance to change must be overcome or the effort will be fruitless.¹

Also, the "perception" of time varies. Culture affects how we think about time. In the United States, people rush important issues, while in other parts of the world, hurrying a decision means the problem is insignificant. Finally, because personalities differ, attempts to present rigid management standards will be only partially successful. A grand plan for managing time may actually make some people less productive. Each person must develop his or her own time style that is compatible with his or her work style.²

Time is an invaluable resource. When time is not utilized effectively, productivity, and money are automatically lost.³ In the current climate of cost containment, the old adage "time is money" has taken on new meaning. Work time is becoming an area of increasing importance, as both individual workers and their employers seek ways to become more flexible in their scheduling and manage time more efficiently. The standardization that existed two decades ago is being challenged on a variety of fronts, as new work-time arrangements are slowly, but steadily, being adopted. Flexitime, compressed work-week schedules, regular part-time, and job-sharing -- most of them unheard of until the early 1970s -- are now available worldwide.

². Ibid, p 7
Flexitime was the first scheduling variant to break with the notion of a standardized schedule everyone adheres to, and that an employee's working hours don't have to be set entirely by the employer. \(^4\)

**Flexitime**

Flexitime is the generic term for flexible scheduling formats. It refers to a work schedule that permits flexible starting and quitting times, within limits set by the employer, but still requires a standard number of hours, usually 40, during a five-day week, within a given time period. \(^5\)

**Reasons For Shift To Flexitime**

Changing technologies, changing local, national and world-wide economic conditions, and changing demographics are mandating the need for more flexibility. Companies and other employers need human resources management strategies that allow firms to expand and contract their payrolls without the dislocation and disruption that attend cycles of layoffs and rehiring.

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\(^4\) B. Olmsted, "Flexitime is Money", *Management Review*, vol. 76, November 1987, p 47

\(^5\) Ibid, p 48
New scheduling formats have the potential for making smoother transitions through these inevitable ups and downs. If properly introduced, these arrangements can also stimulate employee loyalty and commitment -- important under pinnings of real flexibility.\(^6\)

**Need For Study**

Although there has been extensive research and experimentation on Flexitime abroad no study has been conducted about it in Lebanon. The impact of the 15-year-old civil war in Lebanon has been devastating on the citizens, especially with the latest economic downfall. In firms, the nonchalant attitude of employees toward their job is quite evident. Of course, this latitude is not a direct outcome of the war, since many local offices, especially governmental ones, even before the civil war began, were known for the indifference of their employees.

However, the war had its further impact in complicating the behavior of people by rendering them either overly cautious or completely fatalistic -- both cases leading to absenteeism from work and general job indifference.

\(^6\) Ibid, p 49
Another war-syndrome, constant stress ranging from economic worries, feelings of unsafety to repetitive work, has also made the population robot-like individuals. Added to this is the unbearable traffic congestion caused by the closure of main crossings in the country or within the city thereby making commuting so slow and bothersome, especially during rush hours—a factor mostly mentioned for late arrivals at work. Other justifications for late arrivals or early departures are electricity and water rationings which enforce the population to time their lives accordingly.

General Michel Aoun's "war of liberation" and the inter-Christian feud between Aoun's troops and the Lebanese Forces militia, also healt a heavy blow to the country's already shattered infrastructure. (See details under Chapter III). Besides, unemployment and cutting down of businesses are posing very serious problems for the Government. Coupled with these are the complete cuts in electrical power which has incurred an extra cost to business enterprises. Through the organized and well-studied application of Flexitime, real cost controls could be achieved in order to keep work going. Simultaneously, the cost control would have a positive effect and delay the firing or laying off of employees, thus helping partially in the unemployment crisis. In addition, with Flexitime, overtime payments are minimized registering good savings for management.
The case of National Cash Register (NCR) firm would thus serve as an example for other companies to adopt Flexitime as a working schedule.

General Statement Of The Problem

Constant stress, economic worries, fatalism, submissiveness to God have all led some of the Lebanese population to high rate of tardiness, absenteeism and low morale which in turn are posing serious problems to management which due to intermittent fighting and forced closures are working less than required while the country needs to work and produce at its optimum to increase its productivity and make up for its losses.

Also the hazards and risks which unpredicted fighting causes adds to the non-chalance of the employees and their attempts to be absent from work on a systematic basis. Here, law has its drawbacks since there exists no disciplinary action by which the firm could control the behavior of its employees.

Time value and cost controls should therefore be thoroughly watched for in order to alleviate further weight on the economic state of the country.
Socially, the happier or more relaxed the work force would be the more the productivity, which in turn would lead to a better economic state. Running parallel to this issue is that created opportunities to women who due to the economic downturn would be willing to participate in the workforce and through the facility offered by Flexitime they can combine both office and home responsibilities without any conflict of interest.

Concurrently, the cut in traffic jam due to different arrival and exit schedules created by Flexitime would make the employees more relaxed and thus absenteeism and late arrivals would be decreased while productivity would increase, thus giving a boost to the financial status of the country.

**Purpose Of The Study**

The first major focus of this study is to gather enough data on the perceived advantages and disadvantages of NCR employees toward Flexitime so as to increase their productivity and improve their morale. Once this step can be achieved we can move to the second major aspect of the research which is helping NCR management to solve its tardiness/absenteeism issues. The study would also throw a light on the previous misusage of Flexitime at the NCR and offer suggestions for its reapplication under different settings.
Research Questions And Hypothesis

In an attempt to gather information from NCR employees about their attitude toward Flexitime working schedule and relating their replies with data from management so as to find out if there really exists a relationship between Flexitime application and increase in productivity/morale of employees and decrease in tardiness/absenteeism, the following two questions were posed:

1. What are the major characteristics of the respondents?
2. What is the relevant significance of these characteristics on the application of Flexitime at NCR?

In evaluating the change in attitude of employees toward Flexitime the researcher formulated the following hypothesis:

\( H_0 \): Flexitime produces no change.

\( i.e. \)

The frequency (proportion) of yes before and after Flexitime's application is exactly the same.

N.B.: This does not mean that one employee cannot change his/her opinion but the number of changes from yes to no balance off the number of changes from no to yes.

\( H_1 \): Flexitime leads to changes in opinion.

\( i.e. \)

An increase in the frequency (proportion) is favorable to Flexitime.
To test the prementioned hypothesis, the researcher got a yes (favorable) or no (unfavorable) response from each employee in NCR west Beirut's technical and marketing departments.

**Definition Of Terms**

Flexitime originated in Germany during the late 1960s. Flexible working hours (Flexitime) has gained widespread acceptance both in Europe and the U.S.\(^8\) Under Flexitime, employees are given considerable latitude in scheduling their work and lunch breaks. However, there is a "core period" during the morning and afternoon when all employees are required to be on the job.\(^9\) (See Figure 1).

The traditional notion of Flexitime comprehends both an eight hour work day and forty-hour week. As might be expected, modifications of this traditional concept rely on adjustments within a larger time scale. Some companies allow employees to debit or credit work hours; an employee may work thirty-five hours one week, debit his account for five hours in some subsequent week. In contrast, rather than having a debit and credit systems, some firms have alternating four-day and six-day work weeks with employees working eight hours per day. Under such an agreement they may work thirty-two hours the first week, and forty-eight hours the second week.\(^{10}\)

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Figure 1: FLEXITIME SCHEDULE

To ensure that workers put in their stated amounts of hours, several electronic systems have been designed to keep track of workers on Flexitime, whereby with a simple sign-in and sign-out sheet, management monitors their presence.

An alternative option called "staggered time" is applied whereby employees' choice gets limited by requiring advance agreement with the manager on starting times between 7:30 and 9:00 a.m. and is only changed by mutual consent.¹¹

A variation of the plan is group-selected staggered hours. Rather than each individual choosing her or his specific starting and stopping times, the group votes as a unit for varying schedules that all will follow for designated periods of time.¹²

Another development, however, is the "Flexiyear" schedule. Workers can sign contracts to work so many hours during a year. If for example, one contracted to work 1,200 hours during a year, this could be fulfilled in 120 days of 10 hours, 240 days of 5 hours, or any partial combination that fits personal requirements.¹³

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One of the major trends today is the changing composition of the work force. In particular the growing percentage of working mothers with small children. The new demographics are forcing companies to reevaluate how they will attract the workers they will need in the firm. That is why IBM in 1988 announced a program enabling employees on personal leaves to work at home on a part-time basis. Those who benefited in majority were women on extended maternal leaves but male employees have also taken leaves for parental reasons to care for elderly parents or to recapitulate from serious illness. Another U.S. firm, Perkins Geddis Eastman, in order to hang on to its senior employees and let them use their time more flexibly for both work and child-rearing, offered both male and female parental leaves, followed up with a flexible work policy that allows them to work one or two days a week at home, just to ease the transition.

Limitations Of The Study

Some of the limitations encountered while carrying out this research are the following:

1. Chosen sample was so small which did not permit for proper evaluation, hindering randomness and control group analysis to be performed. This was due to the country's political situation, whereby access to east Beirut was almost impossible while most firms practising Flextime are situated in that area.

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2. No quantitative data was available to substantiate the application of Flexitime because of lack of previous research on this field in Lebanon.

3. Limited literature data on Flexitime to be gathered from international magazines specializing in management or recent books on the subject from local services.

4. Delay in receiving the ordered articles from U.S. and Europe which froze the work for quite some time.

5. Very few people had understood the concept of Flexitime, so time is required for first introducing the concept and making sure it is well understood and then, through the usage of questionnaire and interview follow-ups to double check the reliability of their replies.

6. Unavailability of some people to answer to the questionnaire due to the unstable situation in east Beirut.

7. Resistance of some managers to change and preferrance to stick to traditional models of management and reluctance to try new systems.
CHAPTER II
REVIEW OF LITERATURE

Review Of Previous Research

No previous research has been done on Flexitime usage in Lebanon. As for research outside Lebanon, a summarized review of the articles obtained directly from U.S.A is elaborated herebelow:

Summary Of The State Of Knowledge In The Area Reviewed

This section comprises of two sections:
1. Factors which push labor force toward more flexible approach to working hours.
2. Advantages and disadvantages of Flexitime.

Factors Which Push Labor Force Toward Flexitime:
Job experts list a number of factors pushing the labor force toward a more flexible approach to working hours. Among them are the following:

i) Steady growth of multiple-income and dual carrier families. As income rises, so will the desire for additional leisure time. Also in times of recession due to slack times firms may be cutting pays, this
will prompt the employees to look for part-time jobs after unsuccessful searches for full-time works. With Flexitime options the upper mentioned underprivileged may find jobs, this specially applies to women.

ii) Increasing participation of women in the work force, particularly single parents. Many will need flexibility to help them meet parental duties.

iii) Rising costs of commuting. More workers will demand flexible hours to take advantage of car pools and car commuting time.

iv) Pressure on employees to make better use of expensive plant and equipment. Keeping shifts adequately manned will need innovative scheduling.\textsuperscript{16}

\textbf{Advantages and Disadvantages Of Flexitime}

\textbf{Advantages:}

i) Enhanced Productivity: Employees gain greater satisfaction by adjusting their work to accommodate their particular life styles.\textsuperscript{17} Employees also can schedule


\textsuperscript{17} J. Johnson, and R. Zawachi, "Flexible Working Hours: Pros and Cons:”, \textit{Colorado Business Review}, vol. 49, March 1976, p 3
their working hours when they are most productive. Enhanced productivity can be seen from better morale, better fit of work time to employees "time clock", improved handling of fluctuating work-loads, increased customer services because the establishment is open longer, and less "killing time" until quitting time because of reluctance to begin a new task.  

ii) Reduced Employee Tardiness And Absenteeism: When contemplating a late arrival under a fixed schedule, the approved arrival time is within a 2-hour flexible band, both tardiness and absenteeism from the source are eliminated. Personal errands can be taken care of within the necessity of being officially absent for all or portion of the day. 

iii) Improved Morale and Reduced Turnover: Flexitime provides the employee with some control over the work day, thereby constituting a type of job enrichment. Employees are treated substantially in the same fashion as managers or professional personnel.

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19. Flippo, p 15

20. Ibid, p 16
iv) **Reduction In Traffic Congestion:** In addition, variations in arrival and departure times can help reduce traffic congestion at the peak hours. In some cases, less time is required to commute, and the pressure and tension of meeting a fixed schedule is reduced.  

v) **Extra Leisure:** Employees can enjoy any extra hours they may have worked during the week by leaving early on Friday afternoon. They can also have more family time because they saved commuting time and could adjust their work schedules to meet schedules of other family members.

vi) **Aid In Recruitment And Retention Of Personnel:** Flexitime can be most helpful as an aid in recruitment and retention of personnel by cutting down turnover which generally occurs from dissatisfaction at work.

vii) **Full-Time Work Opportunities For Women:** Flexitime allows for housewives to work as full-time employees.

viii) **Cost Control:** From the employer's point of view, Flexitime would be very advantageous due to elimination of overtime pays.

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21. Chruden and Sherman, p 43  
22. Pigors and Myers, p 346  
24. Welch and Gordon, p 62
Disadvantages

Among the cited disadvantages of Flexitime the following can be mentioned:

i) Utility costs are increased since the firm is open for longer periods of time.

ii) Not all necessary employees are present when a particular problem arises, thereby forcing its postponement until the core period.\textsuperscript{25}

iii) Confusion for customers and supplies who are not familiar with the varying attendance of personnel under Flexitime arrangements.\textsuperscript{26}

iv) Unsuitable for some jobs, especially, those that must be staffed at all times (i.e. hospitals).

v) If the longer work period is practised then some employees would be left alone posing safety problems.\textsuperscript{27}

\textsuperscript{25} Michael Cregar, "Flexitime Continues To Edge Upward", Manage World, vol. 19, July-August 1988, p 14

\textsuperscript{26} Flippo, p 16

\textsuperscript{27} Chruden and Sherman, p 44
vi) Difficulties in recording hours actually worked and the symbol of servitude, the time clock, may have to be introduced.

vii) Supervision may become a problem since a single supervisor cannot be present for the full 11 or 12 hours of the authorized day.

viii) There may be conflicts with certain laws that require payment of overtime for hours worked in excess of 8 per day.
CHAPTER III
ENVIRONMENTAL BACKGROUND

This part is subdivided into two main sections:

A. Lebanon's economic and social background.

B. NCR's organization background.

A. Lebanon's Economic And Social Background:

1. Economic Background:

In order to fully comprehend the importance of Flexi-time concept both socially and economically for Lebanon, herebelow is an up-to-date review of the relevant sectors pertaining to the country's environmental background.  

Industry

The persistance of the instability in the east region handicaps the industry sector and provokes the decline of its production. Thus, during the first quarter of 1990 a general regression of 50% was noted while 80% in "war zones". The value of industrial exports declined to around 42%. The monthly revenues which had reached 19 million dollars in 1989 now amount to only 11 million dollars.

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Agriculture: This sector continues to suffer due to the skyrocketing high cost of living whereby due to the closure of major crossings and lack of electricity which hinders cold storage producers are being pressured to lower their prices on perishable foodstuffs while their freight charges keep climbing.

Finance: The second quarter of 1990 has been characterized by an improvement as compared to the first quarter's monetary and financial situation. Internal public debt as well as treasury deficit and the proportion of the "dollarization" have registered a regression despite the persistence of the depreciation of the Lebanese pound and fall of the reserve of foreign currency at the Central Bank as a result of the latter's daily intervention in the foreign exchange market.

Banking: The recent banking crisis, which occurred due to the difficulties of certain credit establishments operating abroad, following the Bank Al Mashrek affair, posed a problem for the overall banking sector and the necessity to take susceptible measures for its reinforcement and development.
Water And Electricity

The second quarter is characterized by a relative improvement on the availability of water and electricity due to the distribution and repairs which were assured to almost all parts of the country.

Telecommunications

As a result of the ongoing fighting in east Beirut, the international as well as internal communications were interrupted and entire regions were cut from each other.

2. Social Background:

Since the outbreak of sectarian hostilities in 1975, war-weary and desperate Lebanese, reeling under deteriorating security, political, economic and social conditions, have left Lebanon seeking new lives mostly in U.S., Canada and Australia. This mass emigration is posing a serious problem in Lebanon threatening to empty the multisectarian country of its professional and skilled labor force.29

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29 The Middle East Reporter newsletter, April 10, 1990, p 11
In order to avoid the brain drain of Lebanese whom Lebanon will directly need in the process of reconstruction and development, ways should be found to motivate the existing professionals as well as the new generation to bear life in Lebanon.

While good help may be hard to find, it's often harder to keep. The best workers are likely to seek other opportunities and this means time and money for employers who must hire and train replacements. The challenge of providing budget-conscious incentives to offset employee turnover is difficult, if not elusive. Options to make companies more attractive to both prospective and long-term employees must be explored for today's industries to remain competitive.

For Lebanese mass emigration is not a new phenomenon. Hundreds of thousands left in 1860 after bloody clashes between the country's Druze and Christian communities. Thousands more left during World War I, swelling communities already established in Africa, Latin America and Europe. A deep economic crisis that hit the country also promoted thousands to seek employment mostly in oil-rich Gulf states and many leading businessmen and bankers moved to more stable if not greener pastures.

Traders by instinct, the Lebanese gained immense influence in the economic life of many of their host countries and some became leading politicians and businessmen. Some of the Lebanese who emigrated over the past few years aid they suffered from anti-Lebanese sentiment in Europe and the United States as Lebanon became associated with plane hijackings and kidnapping of westerners. During the civil war, emigration movement went up and down. But since the deterioration in economic conditions in 1987, emigration had soared. Then as a result of the inter-Christian war which flared in January 1990 emigration again surged with the exodus of more than 100,000 inhabitants from east Beirut to other regions and the emigration of about 200,000. Unemployment hits 35% of the working class, which, on the other hand, has become considerably impoverished.32

31. West Beirut Weekly Ash Shira magazine, April 2, 1990
32. Middle East Reporter, March 28, 1990, p 11
B. NCR's Organization Background:

National Cash Register (NCR), the business systems giant founded on cash register sales just over 100 years ago but today right at the front edge of computer technologies, has been operating in Lebanon since 1948.

Its main headquarters are in Dayton, Ohio. The parent firm controls most of the activities that go on whenever NCR Beirut needs technical/engineering advice or ordering of equipment.33

Before the civil war in Lebanon, NCR had one main office in the Beirut Ain Al Mreisseh area. However, after the capital "practically got split" into two halves, mainly east and west Beirut, NCR decided, for better functioning, to have two branches on both side of the capital.

The once blooming company of 1000 employees, manning the whole Middle East, Africa and Pakistan, nowadays has 20 employees in its east Beirut branch of Jal El Dib and 15 employees in its west Beirut branch, that's exactly .75% of the total workforce of the U.S.-owned multinational firm.

33 Interview with Mr. Arsen Dadayan, head of technical dept. on August 29th, 1989.
NCR's motto is: "WE TAKE CUSTOMER SATISFACTION PERSONALLY."

This belief is seen through the various activities undertaken by the firm with the customer having the controlling function followed by the marketing department and the other business functions serving as support functions.

In order to control the rigid attendance of its employees, NCR uses the time clock method, whereby employees are required to tick in their cards during arrival and tick out for exits. For technicians and sales people there is also a special section to report in and out in between the incoming and outgoing times. At the end of the month tardiness and absenteeism counts are made and reported to management. Those who violate the regulations for tardiness and absenteeism are either reprimended orally, by writing or disciplined through salary deductions.

NCR observed that absenteeism and tardiness rate was getting very high among its employees, so, management decided to resort to Flexitime for improving the situation. The Flexitime was applied in the following manner: Employees could arrive any time between 8:00 and 9:00 a.m. but they had to keep the 7 hours per day work commitment. Thus employees could either work between 8-3 or 9-4. The ability to take care of non-work related responsibilities with a degree of ease proved very valuable to employees in many ways.
At the early stage of application, things went comparatively smooth and management thought it had solved its problem. However, after some time customers cited complaints of inefficient services and managed noted "cheating" within working schedules. Employees would come at 9:00 and leave at 3:--; As management called for strict measures the tardiness rate went down but absenteeism rate went up. As a result most activities got paralyzed leading to actual losses. Thus, management out of its despair suspended the application of Flexitime.  

Recently, as a trial of the application of Flexitime, the working schedule option was reapplied at NCR's west Beirut branch including only the technical and marketing departments. Other employees whose posts require full time presence were excluded from the new program.

NCR has clients all over the Lebanese territory and thus it is mandatory for the technicians to visit them every now and then. Since commuting between one part of the country to the other has become so difficult and a lengthy process, NCR agreed with the technicians that for such cases where they are forced to have overnight duties and are working consecutively for 14 or 15 hours a day, then they can take off the next day. The important issue here is to arrange for a back-up engineer at the office and the involved technician to keep his 40 hours weekly commitment to NCR.

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34. Interview with Mr. Jean Bitar, chief administrator at NCR east Beirut branch on September 13, 1989
The same policy was applied to marketing people where at times they are forced to late afternoon or night appointments with clients, or sometimes even on holidays or Sundays whenever the need for solving the customers' problems is necessary. 35

35. Interview with Mr. Fawzi Ghazaleh, west Beirut branch manager on September 3, 1989
CHAPTER V
PROCEDURES AND METHODOLOGY

Population of the Study and Sample Selection

This study is an attempt to use the case history of a particular firm, the National Cash Register (NCR), to evaluate the change in attitude of the employees as well as management on the application of Flexitime working schedule.

A pilot instrument that consisted of twenty-four questions was constructed and administered on a trial basis to a group of employees at a local bank. Based on this trial the final questionnaire, presented in Appendix B, was devised consisting of twenty-six questions. The questionnaire was administered to both employees and managers with the final two questions posed only to the managers. The questionnaire was distributed to the overall population of the study -- 35 employees both in east and west Beirut. But, the total number of respondents was 32.

A two-month test on the application of Flexitime was run in the west Beirut branch including only the Marketing and Technical Departments. The east Beirut was excluded due to the prevailing unstable situation there. For measuring the change in attitude toward Flexitime the questionnaire was administered a second time as a post test to the experimental group to note any differences of responses.
The quasi-experimental study in the west Beirut branch was designed to enquire into two specific areas relating to the effect of Flexitime on productivity and absenteeism/tardiness as well as evaluating the change in attitude of employees toward Flexitime.

Selected Variables And Their Measurement

In the questionnaire setting the independent variables are: sex, age, marital status, religion, level of education, years of experience at the firm, position, department and branch. These are represented by questions 1 to 9.

The remaining questions are divided into groups with the first part measuring attitude toward Flexitime. Second part measuring effect of Flexitime on productivity. Third part measuring effect of Flexitime on tardiness. Finally, the fourth part measuring effect of Flexitime on absenteeism.

The first group of questions, 10, 12, 14, 15, 16, 20, 25 and 26 measures the attitude of both employees and managers toward Flexitime. Question concerns with Flexitime hour preference. Questions 14 and 15 deal with perceived advantages and disadvantages by employees to Flexitime. Question 20 deals with lunch-break considerations while questions 25 and 26 are posed to managers for their views upon the firms' benefits and losses in application of Flexitime.
The second group of questions consisting of questions 11 and 13 determines the effect of Flexitime on productivity. Question 11 poses direct stance from respondents on Flexitime's effect on their productivity while question 13 tries to find out about the personality type whether the person is a day-time or night-time character. This question could also be related to question 12 where the respondent would prefer to start work early or start work late and also related to question 18 where the person is asked if he/she gets delayed at work and to question 19 which deals with possible reasons for tardiness.

The third group of questions 17, 18 and 19, which was discussed partly above, could be put under the title for effect of Flexitime on tardiness. Question 17 asks whether the respondent has difficulty in waking up which may be a possible reason for tardiness. While 18 and 19 recheck and confirm the respondents' replies. The emphasis here is to find out whether the delay is caused by inner or external (environmental) factors.

The last group of questions 21, 22, 23 and 24 is aimed to reveal Flexitime's effect on absenteeism. Question 21 implicitly asks if the respondent tends to get absent from work. Question 22 asks for the possible reasons for absenteeism. Questions 23 and 24 indirectly find out if the respondent feels uneasy for getting absent and whether he/she would work harder upon return to work.
This study as a quasi-experimental design lacked two important aspects: control and randomness. The limitation was due to the small sample size which did not allow the researcher to randomly assign subjects into two groups: a) control group which was not to receive the treatment (Flexitime) and b) experimental group which was subjected to Flexitime. Also, during computer work in order to facilitate the interpretation, the researcher was forced, due to the small sample size, to collapse and combine categories in the questionnaire in order to end up with two by two cells.

For evaluating the change in tardiness and absenteeism rates data on NCR employees' tardiness and absenteeism were collected for two months before and two months after the implementation of Flexitime. T-test analysis was used to check their level of significance.

_all measures used for data collection_

The review of literature was done both from books and articles. Aside from the questionnaire, personal interviews at different intervals were held to validate the content analysis and to supplement the understanding of the respondents' attitude toward Flexitime. The interviews averaged sixty minutes in length. Computer was used for the frequency distribution tables.
For measuring the T-test for tardiness and absenteeism the following formula was used:

\[ t = \frac{\sum D}{\sqrt{\left[ N \sum D^2 - \left( \sum D \right)^2 / N-1 \right]}} \]

where \( D \) = Difference in data pertaining either to tardiness or absenteeism between post and prior implementation of Flexitime

\( N \) = Number of sample

For measuring the change in attitude of NCR employees' west Beirut branch toward Flexitime the \( \chi^2 \) analysis was used.

\[ \chi^2 = z^2 = \frac{(\mid A-D \mid -1)^2}{A+D} \]

where \( A \) = The number of respondents who had said yes in the pre-test and said no in the post-test.

\( D \) = The number of respondents who had said no in the pre-test and said yes in the post-test.
CHAPTER V
FINDINGS OF THE STUDY

The findings of the study are presented and discussed herein under three major sections. The first section describes the major characteristics of the selected sample. The second section analyzes the attitudinal changes of NCR employees who underwent the Flexitime application. While the third section demonstrates actual changes in tardiness and absenteeism of the experimental group following usage of Flexitime.

Major Characteristics Of Sample

This section will show us the characteristics of our sample and its composition, the sex, age, marital status and other variables which will help in better identification of the group.

NCR Employees' Sex

A study of Table I reveals that twenty seven of thirty two respondents (84.4%) are male, while the remaining five (15.6%) are female.
TABLE I
FREQUENCY DISTRIBUTION OF NCR EMPLOYEES' SEX

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>27</td>
<td>84.4</td>
</tr>
<tr>
<td>Female</td>
<td>5</td>
<td>15.6</td>
</tr>
<tr>
<td>Total</td>
<td>32</td>
<td>100</td>
</tr>
</tbody>
</table>

NCR Employees' Age

The findings reveal that the average age of the respondents was 40. Highest frequency was 24 years with five of the respondents being 24 years old. The median was 40.5 indicating that 16 out of the 32 respondents are 40.5 years below and the remaining half 40.5 years and above.

Mean       40.09  
Median     40.50  
Mode       24.00  

The result matched with the company's policy which favors "young blood". NCR's present recruitment policy is to hire newly graduated students who are dynamic, ambitious and eager to update their knowledge.
NCR Employees' Marital Status

Table II reveals that nineteen of the thirty-two respondents (59.5%) are married while the remaining thirteen (40.6%) are single.

TABLE II
FREQUENCY DISTRIBUTION OF NCR EMPLOYEES' MARITAL STATUS

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>19</td>
<td>59.5</td>
</tr>
<tr>
<td>Single</td>
<td>13</td>
<td>40.6</td>
</tr>
<tr>
<td>Total</td>
<td>32</td>
<td>100</td>
</tr>
</tbody>
</table>

NCR Employees' Religion

Table III demonstrates that twenty-two of the thirty-two respondents (68.8%) are Christian, while the remaining ten (31.3%) are Moslem. This proportion is due to the fact that the east Beirut branch outnumbers the west Beirut and in the former branch there are no Moslems.
TABLE III

FREQUENCY DISTRIBUTION OF NCR EMPLOYEES' RELIGION

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Christian</td>
<td>22</td>
<td>68.8</td>
</tr>
<tr>
<td>Moslem</td>
<td>10</td>
<td>31.3</td>
</tr>
<tr>
<td>Total</td>
<td>32</td>
<td>100</td>
</tr>
</tbody>
</table>

NCR Employees' Education

A study of Table IV reveals that nine out of a thirty-two respondents (28.1%) have BACC II education while the remaining twenty-three (71.9%) have BA, MA and other degrees. University graduates have priority at NCR, bearing in mind that the computer field keeps changing and it has proven more successful to have educated employees whose updating of knowledge runs smoother than those who have BACC level and with whom self-study or training had proven futile.
TABLE IV
FREQUENCY DISTRIBUTION OF NCR EMPLOYEES' EDUCATION

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>BACC II</td>
<td>9</td>
<td>28.1</td>
</tr>
<tr>
<td>BA, MA/Others</td>
<td>23</td>
<td>71.9</td>
</tr>
<tr>
<td>Total</td>
<td>32</td>
<td>100</td>
</tr>
</tbody>
</table>

NCR Employees' Experience

A study of Table V demonstrates that eight of the thirty-two respondents (25%) have 1-6 years of experience at NCR, while the remaining twenty-four (75%) have 7 and above. This data suggests company loyalty due to the high number of seniors around.

TABLE V
FREQUENCY DISTRIBUTION OF NCR EMPLOYEES' EXPERIENCE

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-6 years</td>
<td>8</td>
<td>25</td>
</tr>
<tr>
<td>7 and above</td>
<td>24</td>
<td>75</td>
</tr>
<tr>
<td>Total</td>
<td>32</td>
<td>100</td>
</tr>
</tbody>
</table>
NCR Employees' Position

A study of Table VI reveals that twenty seven of the thirty two respondents (84.4%) are employees while the remaining five (15.6%) are managers.

TABLE VI

FREQUENCY DISTRIBUTION OF NCR EMPLOYEES' POSITION

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employee</td>
<td>27</td>
<td>84.4</td>
</tr>
<tr>
<td>Manager</td>
<td>5</td>
<td>15.6</td>
</tr>
<tr>
<td>Total</td>
<td>32</td>
<td>100</td>
</tr>
</tbody>
</table>

NCR Employees' Attitude To Flexitime

A study of Table VII demonstrates that twelve of the thirty two respondents (37.5%) have a favorable attitude to Flexitime while the remaining twenty (62.5%) have an unfavorable stance toward Flexitime.
### TABLE VII
**FREQUENCY DISTRIBUTION OF NCR EMPLOYEES' ATTITUDE TO FLEXITIME**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Favorable</td>
<td>12</td>
<td>37.5</td>
</tr>
<tr>
<td>Unfavorable</td>
<td>20</td>
<td>62.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>32</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

### NCR Employees' Perceived Effect Of Flexitime On Productivity

A study of Table VIII demonstrates that eleven of the thirty-two respondents (34.4%) believe Flexitime will make them more productive at work while the remaining twenty one (65.6%) believe it will make no effect.

### TABLE VIII
**FREQUENCY DISTRIBUTION OF NCR EMPLOYEES' PERCEIVED EFFECT OF FLEXITIME ON PRODUCTIVITY**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>More Productive</td>
<td>11</td>
<td>34.4</td>
</tr>
<tr>
<td>No Effect</td>
<td>21</td>
<td>65.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>32</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
NCR Employees' Preferred Flexitime Schedule

A study of Table IX reveals that twenty six of the thirty two respondents (81.3%) prefer to start work early under Flexitime while the remaining six (18.8%) prefer to start late.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start work early</td>
<td>26</td>
<td>81.3</td>
</tr>
<tr>
<td>Start work late</td>
<td>6</td>
<td>18.8</td>
</tr>
<tr>
<td>Total</td>
<td>32</td>
<td>100</td>
</tr>
</tbody>
</table>

NCR Employees' Perceived Advantages Of Flexitime

A study of Table X demonstrates that twenty one of the thirty two respondents (65.6%) prefer Flexitime so as they can attend to their home duties, while the remaining eleven (34.4%) prefer Flexitime so as they can improve themselves either through further education or extra work. During computer work, since sample was small, the researcher had to group respondents' replies from the questionnaire. However, manual count for better elaboration showed the following break down; fourteen preferred Flexitime so as they can spend more time with their family and seven said Flexitime usage would reduce early morning pressure in reaching the office. While, five stated that Flexitime would help them in furthering their education and six said they would be able to take another part-time job.
TABLE X
FREQUENCY DISTRIBUTION OF NCR EMPLOYEES' PERCEIVED
ADVANTAGES OF FLEXITIME

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Duties</td>
<td>21</td>
<td>65.6</td>
</tr>
<tr>
<td>Self Improvement</td>
<td>11</td>
<td>34.4</td>
</tr>
<tr>
<td>Total</td>
<td>32</td>
<td>100</td>
</tr>
</tbody>
</table>

NCR Employees' Perceived Disadvantages Of Flexitime

A study of Table XI reveals that twenty four of the thirty two respondents (75%) dislike Flexitime because they see it as unsuited for their jobs. Manual count gave the following breakdown: eleven said Flexitime creates attendance problems at crucial times and thirteen said Flexitime creates confusion for customers due to varying attendance hours. While the remaining eight (25%) disliked Flexitime saying it creates security and safety problems.
TABLE XI
FREQUENCY DISTRIBUTION OF NCR EMPLOYEES' PERCEIVED DISADVANTAGES OF FLEXITIME

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uns suited for Job</td>
<td>24</td>
<td>75</td>
</tr>
<tr>
<td>Causes safety problems</td>
<td>8</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>32</td>
<td>100</td>
</tr>
</tbody>
</table>

NCR Employees' Tardiness Rate

A study of Table XII reveals that thirteen of the thirty two respondents (40.6%) arrive late to work while the remaining nineteen (59.4%) arrive on time.

TABLE XII
FREQUENCY DISTRIBUTION OF NCR EMPLOYEES' TARDINESS RATE

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arrive late</td>
<td>13</td>
<td>40.6</td>
</tr>
<tr>
<td>Arrive on time</td>
<td>9</td>
<td>59.4</td>
</tr>
<tr>
<td>Total</td>
<td>32</td>
<td>100</td>
</tr>
</tbody>
</table>
NCR Employees' Stated Reasons For Tardiness

A study of Table XIII reveals that twenty eight of the thirty two respondents (87.5%) stated home duties as reason for their delays. Manual count for the breakdown gave the following results: two cited taking their children to school; three noted home responsibilities; three said emergencies; four stated medical reasons; nine cited electricity rationing time; and seven said water rationing time. As for the remaining four (12.5%), two cited traffic jam and two said car commuting facility as reasons which hamper them to get late to work.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Duties</td>
<td>28</td>
<td>87.5</td>
</tr>
<tr>
<td>Traffic Jam</td>
<td>4</td>
<td>12.5</td>
</tr>
<tr>
<td>Total</td>
<td>32</td>
<td>100</td>
</tr>
</tbody>
</table>
NCR Employees' Absenteeism Rate

A study of Table XIV reveals that eleven of the thirty two respondents (34.4%) replied they get absent from work while the remaining twenty one (65.6%) said they do not.

TABLE XIV

FREQUENCY DISTRIBUTION OF NCR EMPLOYEES' ABSENTEEISM RATE

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Get absent</td>
<td>11</td>
<td>34.4</td>
</tr>
<tr>
<td>Do not get absent</td>
<td>21</td>
<td>65.6</td>
</tr>
<tr>
<td>Total</td>
<td>32</td>
<td>100</td>
</tr>
</tbody>
</table>

NCR Employees' Stated Reasons For Absenteeism

A study of Table XV reveals that thirteen of the thirty two respondents (40.6%) stated tardiness as reason for their absenteeism. Manual count breakdown however shows that: eight cited tardiness as a reason for absenteeism due to severe pay cuts for tardiness coupled with traffic jam pressure which prompts them to stay at home; two cited moodiness and three dissatisfaction at work which does not prompt them to be conscientious toward their jobs. While from the remaining nineteen (59.4%), eight cited security reasons, five noted leisure time or personal affairs; four stated sickness and two said emergencies.
TABLE XV
FREQUENCY DISTRIBUTION OF NCR EMPLOYEES' STATED
REASONS FOR ABSENTEEISM

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tardiness</td>
<td>13</td>
</tr>
<tr>
<td>Security</td>
<td>19</td>
</tr>
<tr>
<td>Total</td>
<td>32</td>
</tr>
</tbody>
</table>

Frequency distribution was not used for questions 25 and 26 posed to managers about their perceived advantages and disadvantages of Flexitime for the firm, since the number of managers was too small. However, the data collected was used for analysis.

Attitudinal Changes In Experimental Group After Flexitime

Following the two-month application of Flexitime at NCR's west Beirut branch and after distributing the questionnaire as a post test to the experimental group the following changes in responses were registered.
Change In Experimental Group's Response Toward Flexitime

A study of Table XVI reveals that the majority (9) who rejected before were in favor of Flexitime in the post test. While only one who had rejected before still disagreed after the application. The rejection of the majority at first could be attributed to the fact that some were newcomers and ignored the real advantages of Flexitime, while others who also refused were those who had tried before and were unenthusiastic due to its ill-practise whereby some employees had to take up slack work in order to get the job done. The \( \chi^2 \) test gave a significant result of 4.9 which is greater than 3.84 at 0.05 level of significance.

**TABLE XVI**

**CHANGE IN EXPERIMENTAL GROUP'S RESPONSE TOWARD FLEXITIME**

<table>
<thead>
<tr>
<th>B</th>
<th>A</th>
<th>NO</th>
<th>YES</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>NO</td>
<td>0</td>
<td>9</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>1</td>
<td>12</td>
<td>13</td>
<td></td>
</tr>
</tbody>
</table>

\( \chi^2 = 4.9 > 3.84 \) significant at 0.05
Change In Experimental Group's Response Toward Flexitime's Effect On Productivity

A study of Table XVII reveals that the majority (8) who rejected at first saying Flexitime would have no effect on their productivity were in favor after its application. While one respondent who was in favor of Flexitime's positive effect on productivity said it had no effect, at least during the experimental period. The post interview revealed that the positive change was due to Flexitime's effect on the employees' morale which automatically boosted their willingness to work harder and produce more. While the one who was in favor before and then became indifferent said he expected more of Flexitime. \( \chi^2 \) test gave a significant result of 4 which is greater than 3.84 at 0.05 level of significance.

**TABLE XVII**

CHANGE IN EXPERIMENTAL GROUP'S RESPONSE TOWARD FLEXITIME'S EFFECT ON PRODUCTIVITY

<table>
<thead>
<tr>
<th>A</th>
<th>NO</th>
<th>YES</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>YES</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>NO</td>
<td>1</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2</td>
<td>11</td>
<td>13</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 4 > 3.84 \quad \text{significant at 0.05} \]
Change In Experimental Group's Response Toward Flexitime's Effect On Tardiness

A study of Table XVIII reveals that the majority (6) who said before they used to get late replied they were not doing so after the Flexitime usage. None who used to be late before was reported of getting absent during the experimental period. The post interview with the experimental group revealed that the reduction in tardiness was due to the employees' given leeway in attending personal affairs etc... Their higher morale had a good impact on their willingness to work more than before which boosted productivity. Those who were complaining from being unable to catch up with water and electricity rationings said they were more satisfied. As for those who had complained about traffic jam they said now they arrived more relaxed to their offices. The $\chi^2$ analysis showed a high relationship between Flexitime and its affect on tardiness with a result of 4.17 which is greater than 3.84 at a significant level of 0.05.
## TABLE XVIII

CHANGE IN EXPERIMENTAL GROUP'S RESPONSE TOWARD FLEXITIME'S EFFECT ON TARDINESS

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>NO</th>
<th>YES</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>6</td>
<td>1</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>NO</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>12</td>
<td>1</td>
<td>13</td>
<td></td>
</tr>
</tbody>
</table>

\[ \chi^2 = 4.7 > 3.84 \text{ significant at 0.05} \]

**Change In Experimental Group's Response Toward Flexitime's Effect On Absenteeism**

A study of Table XIX reveals that the majority (7), who said they were getting absent before stated later that they are not doing so after Flexitime's application. None who was not getting absent started doing so after the experiment either. The researcher's gathered data during the post interview revealed that with Flexitime the respondents had higher morale which was reflected in their health record whereby the number of sick reports for the period had decreased. Those who cited security reasons now said they could listen the early morning news and then evaluate the situation to proceed. The $\chi^2$ analysis gave a result of 5.14 which is greater than 3.84 at a significant level of 0.05.
<table>
<thead>
<tr>
<th>B</th>
<th>A</th>
<th>NO</th>
<th>YES</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>YES</td>
<td>7</td>
<td>0</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>NO</td>
<td>6</td>
<td>0</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>13</td>
<td>0</td>
<td></td>
<td>13</td>
</tr>
</tbody>
</table>

$\chi^2 = 5.14 > 3.84$ significant at 0.05

**Actual Change In Experimental Group's Tardiness/Absenteeism Rates After Flexitime**

In order to evaluate the actual change in the experimental group's tardiness and absenteeism rates data was collected for two months prior to Flexitime application and two months following it and through usage of T-test for correlated sample, the significance of change was measured.
**Tardiness Data:**

<table>
<thead>
<tr>
<th>Months</th>
<th>Tardiness/Hour</th>
<th>Months</th>
<th>Tardiness/Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>February</td>
<td>10 hours</td>
<td>April</td>
<td>5 hours</td>
</tr>
<tr>
<td>March</td>
<td>8 hours</td>
<td>May</td>
<td>5 hours</td>
</tr>
</tbody>
</table>

The T-test analysis gave a result of 4.48 which is greater than 2.1 so it is significant, meaning that Flexitime had a positive impact on the experimental group's tardiness rate.

**Absenteeism Data:**

<table>
<thead>
<tr>
<th>Months</th>
<th>Absenteeism/Day</th>
<th>Months</th>
<th>Absenteeism/Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>February</td>
<td>7 days</td>
<td>April</td>
<td>5 days</td>
</tr>
<tr>
<td>March</td>
<td>6 days</td>
<td>May</td>
<td>3 days</td>
</tr>
</tbody>
</table>

The T-test analysis gave a result of 3.309 which is again greater than 2.1 so it is significant meaning that Flexitime had a favorable effect on the experimental group's absenteeism rate.
CHAPTER V
SUMMARY AND CONCLUSION

We summarize here below the findings of the previous chapters stating recommendations that could be derived from the preceding analysis.

Summary Of Findings

The aim of this study was to evaluate the application of Flexitime as a working schedule option so as to help the National Cash Register (NCR) management in its decision-making process. The findings of this research are based on research questions and an hypothesis to find out about the major characteristics of the selected group, including both the east and west Beirut branches of NCR, and then to analyze the attitudinal changes undergone by the experimental group, west Beirut branch's technical and marketing departments only, after a two-month application of Flexitime. Finally, to substantiate the findings with actual changes in tardiness/absenteeism data of the experimental group in order to link Flexitime's effect on productivity. Since the less the tardiness and absenteeism, the higher gets the productivity.

The findings of this study revealed that eight-four percent of the NCR employees are male, with fifty nine per cent married and sixty nine per cent Christian with an average age of 40.5.
Education level was quite high with seventy two per cent having BA/MA degrees. As for their experience in the firm, seventy five per cent had more than seven years of experience. Also, eighty four per cent are employees with only five managers around.

As for the attitudinal changes in the experimental group after the usage of Flexitime the following pertinent changes were noted:

1. Nine of the respondents who rejected Flexitime as a good working schedule favored it after its application, with one still unfavoring it even after the post-trial. Three who agreed in advance still kept their point of view the same. The negative stance at first demonstrated could be attributed to general ignorance of Flexitime and to its misusage in the firm years ago.

2. Eight of the respondents who at first said Flexitime would have no effect on their productivity changed their opinion after its application. The one who said it would have a positive effect negated himself by saying he expected more "miracles". One who disagreed before stood firm to his opinion and three who accepted Flexitime's effect on productivity still kept on to their word. The possible explanation for the positive change in opinion may have been Flexitime's effect on the morale of the employees which automatically boosted their willingness to work and produce more.
3. Six of the respondents who said before that they used to arrive late to work, now ceased doing so after the application of Flexitime. None who said he/she arrived late after the experiment said the contrary. While six who were not late still continued to come on time. While one who said he was not late before got late once during the experimental period. The positive effect may be attributed to the high morale created by the freedom to attend one's personal affairs. Also, the change of arrival times had a positive impact on the employees by avoiding rush hours and reaching the office more relaxed than usual.

4. Seven of the respondents who said they were getting absent from work before application of Flexitime said they were not absent during the experimental period. None who said was getting absent before replied of any absenteeism later on. While six who were not absent still said they still were not absent. None who was not getting absent said was absent either. The positive change could be attributed to the high morale which favorably affected the employees' health records since no sick reports were handed during the experimental period. Also, those who avoided to come to work due to personal affairs were able to take care of them at their convenience. As for those who were getting absent due to tardiness were reported better off since they avoided traffic jam and they had a better outlook to their jobs.
As for the results of the actual change in tardiness and absenteeism rates which were calculated based on company's data they matched with the pre-mentioned results. The management was very satisfied with the outcome.

Recommendations And Conclusion

Turning to recommendations, some factors may assist in bringing about employee acceptance and enthusiasm toward Flexitime as well as monitor the overall success of the working schedule.

1. Flexitime should be used for only such posts which have dual occupants. A firm, for instance, with only one secretary, one office boy or one accountant should not include these personnel into its Flexitime schedule. This was one of the reasons which led to Flexitime's failure at NCR during its first usage. However, since then the number of certain posts have been increased. Besides, in this study it was suggested to use only the technical and marketing departments where the problem does not impose any threat on its success.

2. NCR needs more organization and scheduling of its work. When people are on Flexitime it is very crucial to properly plan the work schedule so as things run smoothly and clients do not complain. Throughout the review of literature it was revealed that the Arab world in general lacks industrial mentality specifically in the fields of delegation and team work.\footnote{F. Muna, \textit{The Arab Executive}, London, Macmillan Press Ltd., 1980, p 118}
Other observations of the Arab world stated lack of management, meaning improper utilization of one's working hours. Both observations apply to NCR. Thus, skills must be learnt to avoid this inherent deficiency. A good training for both managers and employees would be beneficial.

3. Management's strictness over tardiness through rigid pay cuts had created animosity among the employees and alienated them from the company's common goals. A more employee-oriented approach can do wonders.

4. For employee development it is recommended that managers extensively use performance appraisals in order to encourage the employees, since Flexitime alone without any proper evaluation would not lead to long-term results. As it had happened before, those who under Flexitime had worked harder but left unappreciated after a certain period of time had become indifferent. Thus, promotions and salary raises should be born in mind for proper evaluation. Management should not equate Flexitime as a kind of fringe benefit and forget other tools for motivating the work force.

5. It is also recommended that firms which utilize Flexitime continuously monitor its effectiveness. A measure of productivity should be established, and the impact of Flexitime on this productivity index should be assessed quantitatively.

37. Ibid, p 119
Utilization of this procedure will help the firm to (1) identify sources of resistance, (2) identify needed modifications in its implementation, (3) monitor the long-range effects of Flexitime and (4) assess the cost/benefit relationship of the program.\textsuperscript{38}

As a conclusion we might say that for Flexitime's success, management has to do its utmost to coordinate projects, make available keep people at crucial times and check employee abuse through strict supervision. Given the efficacy of Flexitime which this study demonstrated perhaps more companies will look to it as a practical means to enhance productivity through improving their employees' morale toward their work environment.

\textsuperscript{38} Welch and Gordon, p 65
My name is Sheila Abdalian. I am a graduate student in the MBA program, Department of Business, BUC. Since no research has been done previously on the application of Flexitime in Lebanon, I thought it would be interesting and helpful to conduct a study and through the aid of a questionnaire to collect some data. The responses you give will be completely anonymous and confidential. The responses will be used solely for statistical purposes and will not be connected with the statements of any individual.

Please CHECK your choice in the appropriate space herebelow.

1. What is your sex?
   Male.....
   Female...

2. What is your age? .... years

3. What is your marital status?
   Single.....            Widowed.....
   Married.....          Divorced....

4. What is your religion (optional)?
   Christian.....
   Moslem...........

5. Please check the highest level of education you have completed?
   BAC II.............
   BA/BS/BE & others.....

6. How long have you been working with this firm?
   1-7 years....
   ? & above.....

7. What is position?
   Regular employee.....
   Manager.............

8. In which department do you belong?
   Technical..........
   Marketing..........

9. In which branch of the firm?
   East.....
   West.....
10. How do you view the Flextime working schedule?
   Good.................. 
   Unpractical..........

11. Do you think Flextime will make you more or less productive at work?
   More Productive......
   Less Productive......

12. Under Flextime Would you prefer?
   To start work early and finish soon........
   To start work late and thus finish late....

13. As far as productivity is concerned are you a day-time or night-time person?
   Day-time....... 
   Night-time.....

14. You like Flextime since it permits you:
   a) Spend more time with your family ................
   b) Further your education...........................
   c) Reduce early morning pressure in reaching the office...
   d) Take another part-time job........................
   e) Others (specify).....................................

15. You dislike Flextime since it:
   a) Creates attendance problems at crucial times........
   b) Creates confusion for clients due to varying attendance hours....................................... 
   c) Uns suited for some jobs................................
   d) Causes safety problems................................
   e) Others (specify)........................................

16. Which of the following will best describe your attitude toward life?
   a) Fatalist...........
   b) Safe player........
   c) Opportunist........
   d) Leader............... 

17. Do you have trouble in waking up early?
   Yes........
   No........
18. Do you come late to work?
   Yes......
   No......

19. In case you are late, check only one of the most probable reasons.
   a) Late sleeper...................
   b) Taking children to school.....
   c) Home responsibilities..........n
   d) Security reasons..............
   e) Traffic jam...................
   f) Car commuting facility........
   g) Emergencies...................
   h) Indifference toward work......
   i) Medical reasons...............n
   j) Electricity rationing time....
   k) Water rationing time..........n
   l) Others (specify).............

20. Do you prefer working non-stop or have lunch break?
    Non-Stop.......        
    Lunch break.....

21. Do you get absent from work?
    Yes....
    No.....

22. In case you are absent, please check only one of the possible reasons?
   a) Tardiness....................
   b) Sickness....................
   c) Emergencies ................
   d) Leisure time ...............n
   e) Security reasons...........
   f) Moodiness....................
   g) Dissatisfaction at work.....
   h) Others (specify)...........

23. Do you feel uneasy at home after consecutive days of absenteeism?
    Yes.....
    No......

24. Upon return to office, would you work harder to make up for lost time?
    Yes.....
    No......
For Managers Only:

25. You find Flexitime beneficial for the firm since:
   a) Improves employee morale and productivity?
   b) Decreases tardiness and absenteeism

26. What disadvantages hinder you from application of Flexitime in the firm?
   a) Lack of supervision during all hours of work.............
   b) Causes understaffing at times ............................
   c) Key people unavailable at certain times .................
   d) Difficulty in scheduling meeting, coordinating plans...
   e) Difficulty in planning work schedules, keeping track of hours..................................................
   f) Employee abuse of Flexitime..............................
   g) Others..........................................................
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