

THESIS

Wasim H. M. Al Arabid

2025



**Hungarian University of Agriculture and Life Sciences
Gödöllő Campus
Department of Agricultural Business and Economics**

**Business Administration and Management
Bachelor's education**

**The impact of shift work system on employees'
satisfaction in private sector in Palestine**

Insider consultant: Noémi Fiser
Assistant professor

Insider consultant's

Institute/department: Department of Agricultural
Business and Economics

Created by: Wasim H. M. Al Arabid

Gödöllő

2025

Table of contents

I. INTRODUCTION	2
1. STATEMENT OF THE PROBLEM	2
2. RESEARCH OBJECTIVES.....	3
3. RESEARCH QUESTIONS.....	3
4. REASONS FOR THE SELECTION OF THE TOPIC	3
5. LIMITATIONS OF THE STUDY.....	4
II. LITERATURE REVIEW.....	5
1. ADVANTAGES OF SHIFT WORK	6
2. DRAWBACKS.....	6
3. IMPACT OF SHIFT WORK ON EMPLOYEES' JOB SATISFACTION.....	14
4. RESEARCH FRAMEWORK	16
III. RESEARCH METHODOLOGY	18
1. RESEARCH APPROACH	18
2. RESEARCH DESIGN	18
3. RESEARCH PROCEDURE	18
4. RESEARCH INSTRUMENTS	19
5. SAMPLING METHOD AND PROCEDURES.....	19
6. DATA ANALYSIS	20
7. RESEARCH VALIDITY AND RELIABILITY	20
IV. FINDINGS OF THE STUDY	21
1. DEMOGRAPHICS.....	21
2. SUITABILITY OF THE SHIFT WORK ARRANGEMENTS.....	27
3. ADVANTAGE OF SHIFT WORK SYSTEM.....	28
4. DISADVANTAGES OF SHIFT WORK SYSTEMS.....	29
5. HYPOTHESIS TESTING	31
CONCLUSION.....	37
BIBLIOGRAPHY	39
LIST OF FIGURES	42
LIST OF TABLES.....	42
ANNEXES.....	43

I. Introduction

There are several studies interested to investigate the impact of shift work on employees' performance, employees' loyalty, employee's health and wellbeing and employee's satisfaction in different sectors especially in western context in Nursing sector and hospitality sector such as hotels. However, there are several studies found there are numerous problems associated with shift work time arrangements such as sleep and digestive disturbances, chronic results such as cardiovascular pathologies and negative social impacts (Kantermann et al. 2010).

Recently, several occupations and industries offer their services to consumers such as call centers, internet service providing firms, health care institutions, banks, hospitality firms such as hotels, police departments. The shift work system in developed countries have great impact on national economy and the development of economies in countries. However, shift work arrangements have several problems and issues about its impact on human resources in organizations as researchers found that there is great impact on shift work on employees' health and well-being.

The researcher in this study will investigate the impact of shift work on employees' job satisfaction in Palestine private sector through discussing to what extent Palestinian organizations adopt shift work arrangement. Besides, discussing the nature of jobs that needs for work shifts arrangements, the difficulties and opportunities for adopting work shift in private sector in Palestine.

1. Statement of The Problem

There are several variables that affect employee's performance in organizations in Palestine, one of the most important factors that affect the quality of work in organizations is the availability of shift time that enable employees to create work life balance for employees which affects positively on employee's satisfaction. However, there are several studies found that there are negative effects for using shift work on employees psychologically and physiologically because of rigidity of sleeping habits and vigor. From other perspective, there are several organizations their nature of work needs to provide their services for consumers at all the time at seven days, twenty-four hours such health centers and hospitals. Thus, this research problem will be addressed in this study: **What is the impact of work shift system on employees' satisfaction in private sector in Palestine?**

2. Research Objectives

This study aims to investigate the impact of shift work on employees' satisfaction in private sector institutions in Palestine. Thus, this study aims to achieve the following objectives:

1. To explore to what extent Palestinian private sector organizations, use shift work in their organizations.
2. To investigate the main advantages as well as the disadvantages of using shift work in private sector organizations.
3. To identify the challenges and limitation that may limit using the shift work in Palestinian organization.
4. To analyze the relationship between demographic factors such as age, gender, marital status and household size and employees' attitudes toward the impact of work shift system on employee's satisfaction.

3. Research Questions

1. To what extent Palestinian private sector organizations use shift work in their organizations?
2. What are the main advantages as well as the disadvantages of using shift work in private sector organizations?
3. What are the main challenges and limitation that may limit using the shift work in Palestinian organization?
4. What is the relationship between demographic factors such as age, gender, marital status and household size and employees' attitudes toward the impact of work shift system on employees' satisfaction?

4. Reasons for The Selection of The Topic

- **Theoretical Need:** This study is one of pioneering studies that conducts about shift work system and its impact on employees in private sector in Palestinian context. As most researches in this important field conducted in western context and there is scarcity of studies that were conducted in Palestinian context concerning this topic.
- **Practical Need:** This study is important study for employees and organizations as this study investigates the opinion and attitude of employees toward work shift in

Palestinian organizations. Furthermore, to explore its impact on employee's satisfaction, as researchers found paradox findings as some of them found that work shift is important for employees to create work life balance and creating a changeable and interesting work environment, However, others found that there is an inverse relationship between work shift and employees' satisfaction and creating psychological and physiological problems for employees. Furthermore, this study is important to suggest some recommendations about shift work management to Palestinian private sector for future considerations.

5. Limitations of The Study

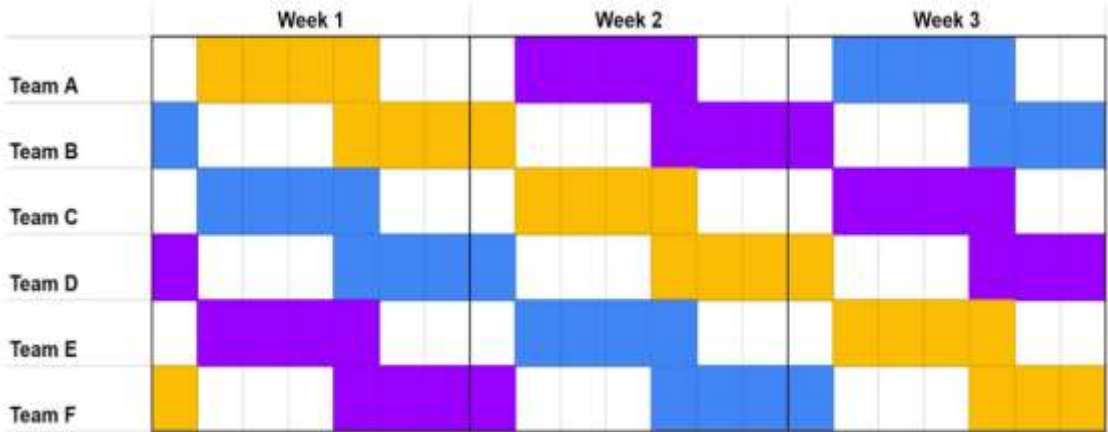
- **Place Scope:** private sector in Ramallah city
- **Time of the Study:** second semester 2023-2024 that is during February 2024-May 2024.
- **Human Scope:** employees in private sector.

II. Literature Review

Shift work concept means different things to different people, it means in a simple word a work in which human resources "shift" schedules on some consistent basis from daytime to evening or nighttime. Other definition for shift work is “An employment in which two or more categories of human resources work at diverse times of a 17-hour or 24-hour time span, including a so-called "day" shift. another definition for shift work is “Any employment that frequently happens between 7 p .m. and 7 a.m.” (Estryn-Beher et al., 2012).

The following image is an example of how general shift work can be planned and used by most of the companies that depend on this type of time distribution. This is one of the most popular 24/7 shift schedules:

Figure 1: Example of a 4 on, 3 off pattern for a 24-hour work schedule with different colors representing day, swing, or night shifts.
 (Source: Graw & Ruhm, 2025).



Shift work has several advantages for employees as it provides several advantages for several employees as well as it is important to several people in different ways for industry and for society at large. Furthermore, it is important for government policymakers, business leaders, and shift workers themselves to become familiar with the main impacts that working evenings and nights may have on employees and their families to consider alternatives to alter the features that are harmful, while retaining or enhancing those that are advantageous (Stimpfel et al., 2013).

The researcher in this section of the study will define the concept of shift work, importance of shift works as well as disadvantages of this type of work arrangements. Besides, this study will explore the types of jobs that fit with shift work arrangements. Besides, the researcher will identify the definition of employees' satisfaction. Besides, exploring the impact of shift work on employee's satisfaction.

1. Advantages of Shift Work

Several human resources accept shift work as there are not sufficient daytime jobs available for them, shift work schedules provide an important source of productive and efficient human resources. The most important feature for shift work that it appears to be its wage differential. Furthermore, day and evening shift work arrangements assist human resources to increase their income by doing two jobs on daytime jobs. Furthermore, shift work is also an important financial incentive seldom talk about in the researchers. Besides, researchers found that the rapid expansion of service employment has created several employment opportunities for part-time or irregular work for young people whose focal action is following their education (Fossum et al., 2013).

Several body and security guards and nurse's take advantage from shift work arrangements, for instance, using evening and night jobs to work their way through school and to provide a noiseless situation in which they can spend some of their paid hours studying. A lot of shift employees have less tension and a more relaxed pace on the night shift thundering the day since of less supervision or fewer disturbances from clerical or management staffs (Niu et al.,2013).

2. Drawbacks

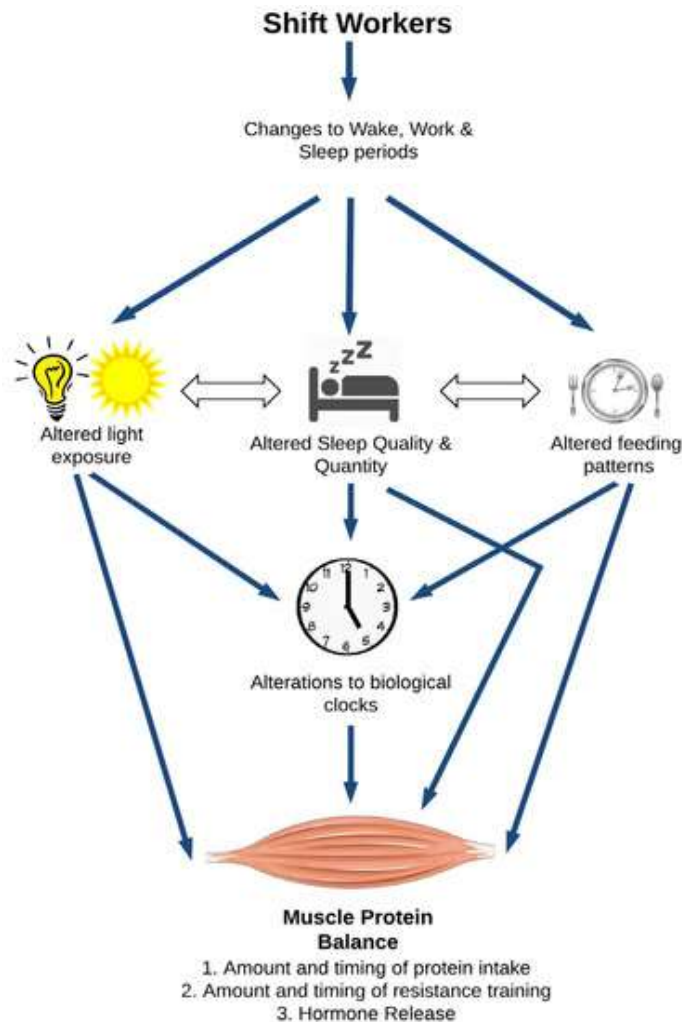
Shift work offers certain benefits to both companies and employees, such as greater operational flexibility, longer service hours, and the possibility of earning more income. However, it also brings several drawbacks that can seriously impact workers' overall well-being. Studies indicate that shift work can harm employees' physical and mental health, often causing chronic tiredness, sleep problems, metabolic issues, and a higher chance of heart-related conditions due to disruption of natural body rhythms. Besides health effects, shift work can strain social and personal relationships both at work and at home. Those working irregular or night shifts frequently struggle to maintain regular communication and social connections with family, friends, and coworkers, which may lead to feelings of

loneliness and less social support. Additionally, such schedules can harm relationships between employees and supervisors, as mismatched hours can reduce effective oversight and teamwork. Opportunities for leisure and recreation are often limited as well, decreasing chances for rest and personal satisfaction. Most importantly, shift work is linked to increased safety hazards, since fatigue and lowered alertness can cause more workplace accidents and mistakes. In summary, although shift work can enhance organizational efficiency, it poses significant challenges that need careful management to protect employees' health, relationships, and safety.

Shift work arrangement affect negatively on employees' health through increasing employees especially blood pressure, the cardio-pulmonary system, blood composition, endocrine secretions, appetite, elimination, and the wake-sleep cycle."

In an article published in the MDPI medical article (Aisbett et al.; 2017), approximately one in four employees work shifts that extend beyond the conventional 7 a.m. to 6 p.m. schedule. Such shiftwork disrupts normal exposure to natural and artificial light, as well as sleep and eating patterns. Compared with day workers, shiftworkers face a higher risk of developing metabolic impairments over time. A key determinant of metabolic health is skeletal muscle, the body's largest organ.

Figure 2: A model for the potential impact of shiftwork on skeletal muscle health (Source: Aisbett et al.; 2017)

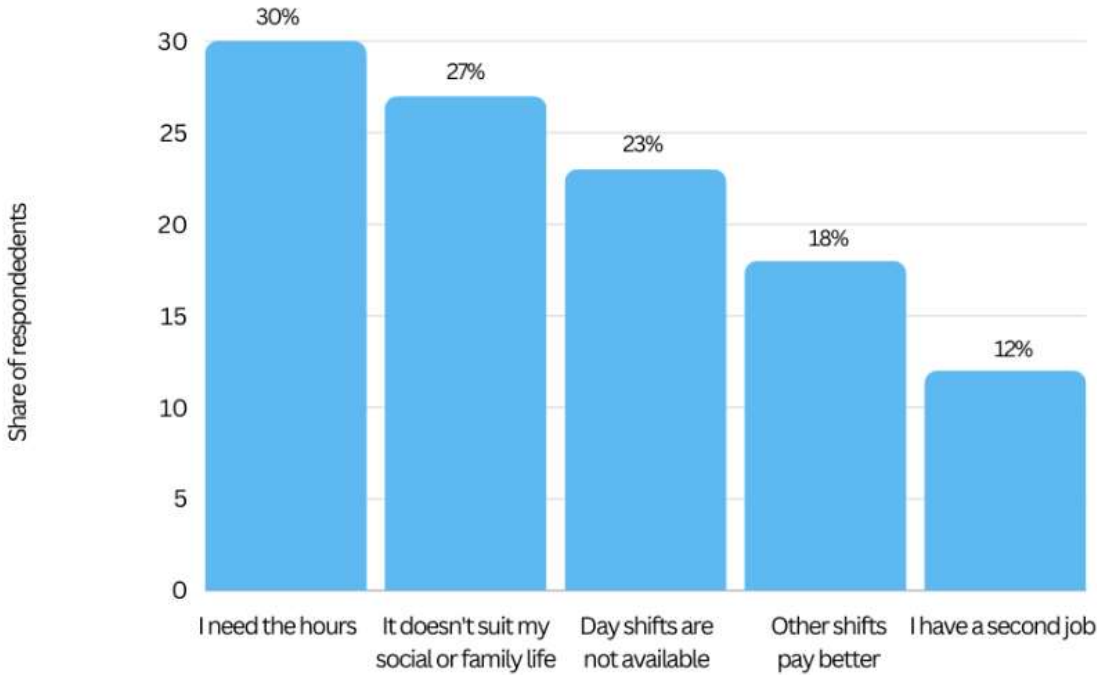


A recent evaluation by the National Toxicology Program published in redline digital (A. Konopliov; 2024), highlights trends related to night shift work, light exposure at night, and potential links to cancer. A survey of over 2,500 professional cleaners across 32 countries and 3 continents looked at the effects of shift work schedules on their health, well-being, and lives.

- Nearly 70% of night-shift cleaners reported insufficient sleep.
- Around 45% of women working night shifts felt unsafe at work, with over a third reporting harassment at work.
- 70% of non-day shift cleaners work those hours out of necessity, either due to higher wages or lack of day shift availability.

Figure 3: Factors hindering professional cleaners from working day shifts

(Source: Konopliov, 2024)

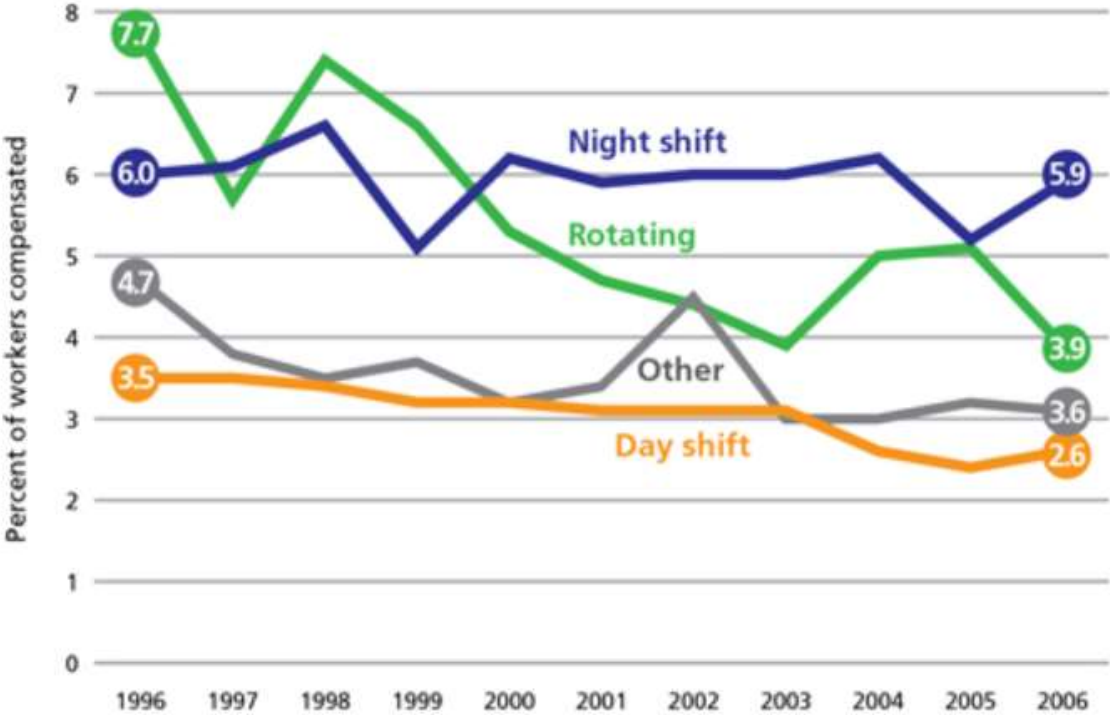


Shift work arrangement affects negatively on the relationship between family members as shift workers suffer more problems related to the family than their daytime counterparts do as the shortage of synchrony between their hours on the job and their families' daily routines. Shift work effects on the parent`s relationship with their sons.

Safety is another important problem due to shift work arrangements, even though dissimilarity and absence of indication prevail concerning the impacts of shift work arrangements on human resources safety, there are high agreement that an increased rate of accidents at night based on laboratory studies of efficiency and errors related to circadian rhythms (Saksvik- Lehouillier et al., 2013).

Figure 4: Percent of workers compensated for an injury, by shift type, Canada, 1996-2006

(Source: Wong et al.; 2011)



In 1999, there were 2.3 million people working night shift work in Canada, representing 15% of the workforce (9% rotating shift work, 6% regular evening or graveyard). By 2005, there had been an 18% increase in night shiftwork with a 16% increase among men and 22% increase among women (Wong et al.; 2011).

Kugler et al., (2014) found that working hours mismatch will lead to worse health among employees than among those with matched working hours. Ehing (2014) found that personal characteristics such as employees` gender, category of age, qualifications and level of income affects significantly effect on employees` preferences for shift work arrangements. Furthermore, Ronsen and Kitterød (2010) revealed that the satisfaction with full-time working hours is lower with nonstandard working hours such as shift or rotating work. Employees who work several days a week or daily in a home office more frequently want to reduce working hours.

According to Guyette et al. (2013), found that there is insignificant impact for adopting shift work arrangements on job performance after the introduction of (12) hour shifts among

41 underground miners in Canada. Furthermore, Barker and Nussbaum (2011) explored the main changes in cognitive performance as a result of the different shift lengths working either 12 or 24 hours shifts through using cross sectional study that was administered within 34 air medical providers. The study results revealed that there is insignificant relationship between cognitive performance and adopting shift work arrangements. On the other hand, air medical providers working 24-hour shifts were able to sleep on average 6.8 hours during the shift, while employees who are working 12 hours slept on average 1 hour on shift.

The graph below shows the circadian rhythm in alertness/sleepiness over a 24-hour period, and when it is easier or more difficult to fall asleep.

Figure 5: Circadian rhythm in alertness/sleepiness over a 24-hour period

(Source: *Worksafe*, 2021)



Griffiths *et al.* (2014) carried out a comprehensive international study across twelve countries, involving a large sample of hospital nurses (n = 31,627), to investigate how extended working hours affect key healthcare performance indicators. Their findings showed that 12-hour shifts significantly harmed care quality, patient safety, and increased the frequency of missed nursing care. Specifically, nurses working 12 hours or more were about 30–41% more likely to report negative patient outcomes compared to those working standard shifts of 8 hours or less. Supporting these results, three major studies in the United States, with sample sizes ranging from 3,710 to 22,275 nurses across various hospitals and

healthcare environments, further examined the effects of long shifts. These studies consistently found that extended shifts, especially those lasting 13 hours or more, were linked to lower care quality, decreased patient safety, and greater patient dissatisfaction. Together, these studies highlight the harmful impact of excessively long shifts on both nurse well-being and healthcare outcomes, emphasizing the need for evidence-based scheduling policies to safeguard patient safety and improve care quality.

1. Factors Influencing Job Satisfaction

Abdo Shah et al. (2018) conducted an empirical study to identify the main factors affecting job satisfaction among employees in the banking sector. The research focused on senior executives at Asgariyeh and MehrIran Banks in the Qazvin and Alborz provinces. Data were gathered using two structured questionnaires. The first, based on individual characteristics, included four questions to collect demographic and personal background information. The second was a proprietary questionnaire with 70 items, with job satisfaction as the primary dependent variable. This detailed instrument assessed various organizational and interpersonal factors that might influence employees' job perceptions. Analysis revealed that relationships with colleagues were the most significant factor impacting overall job satisfaction among bank employees, followed by opportunities for promotion and career growth, with compensation ranking third. These results suggest that interpersonal relationships and collegial support have a greater influence on employee satisfaction than financial or structural incentives alone. The study underscores the importance for banking institutions to foster a positive workplace culture and supportive professional relationships to boost employee satisfaction and organizational effectiveness.

Jeet and Sayeeduzzafar (2014) investigated the impact of HR management practices on job satisfaction of private sector banking employees. They found that there is a direct relationship between HRM practices and job satisfaction in private sector banking.

Panghal and Bhambhu (2013) emphasized that employee job satisfaction is a multifaceted construct influenced by several organizational and interpersonal factors. Their research demonstrated a strong and direct positive relationship between employees' overall job satisfaction and various dimensions of the work environment, including the nature of the work itself, the quality of management practices, the behavior and supportiveness of supervisors, relationships with co-workers, compensation systems, opportunities for

promotion, as well as broader organizational aspects and working conditions. These findings suggest that job satisfaction does not depend solely on monetary rewards but is deeply rooted in the quality of the organizational climate and interpersonal relationships within the workplace. Complementing this perspective, Kord (2012) conducted a cross-cultural study comparing bank employees in Iran and India to examine the relationship between job satisfaction and organizational commitment. The results revealed a clear and direct correlation between the two variables, indicating that higher levels of job satisfaction are associated with greater employee commitment to the organization across different cultural contexts. This underscores the universal significance of job satisfaction as a determinant of organizational commitment, suggesting that fostering a supportive and well-managed work environment can enhance not only employee morale but also loyalty and long-term retention, regardless of cultural or national differences.

Sehgal (2012) explore the level of employees' feeling with satisfaction in banking employees in Shimla as the capital and largest city in Northern India. The researchers compared the job satisfaction between private and local banks, the study results revealed that bank's management ought to manage HR efficiently to achieve an acceptable level of job satisfaction. According to Chang & Lee (2006) who investigated the relationship between personality traits, job characteristics and organizational commitment. They found that there is direct relationship between these three variables.

O'Neal (2012) evaluated the impact of work schedule flexibility on job satisfaction of telephone advice nurses, the researchers in this study used the exploratory, descriptive correlation design based on Herzberg's Motivation-Hygiene Theory. The researcher used the convenience sampling technique, the researcher selected a sample that consists of (77) telephone nurses at two call centers of a large metropolitan health care system in southeastern United States, the study results revealed that there is positive direct relationship between work schedule flexibility and job satisfaction. On the other hand, there is no relationship between work/life balance and job satisfaction.

Nawab and Bhatti (2011) conducted a comprehensive study to examine the impact of employee compensation on both job satisfaction and organizational commitment among university teachers in Pakistan. Recognizing that higher education institutions rely heavily on the motivation and engagement of their academic staff, the researchers sought to understand how compensation structures influence faculty attitudes toward their work and

their long-term loyalty to the institution. The study explored various dimensions of compensation, including salary, benefits, incentives, and recognition, and analyzed how these factors contribute to teachers' overall job satisfaction and their emotional and professional attachment to the organization. The findings revealed that fair and competitive compensation plays a crucial role in enhancing employees' satisfaction and fostering stronger organizational commitment. Based on these results, Nawab and Bhatti proposed a strategic framework for university administrations to design and implement effective compensation practices. Such practices, they argued, are essential not only for attracting and recruiting talented faculty members but also for retaining them by ensuring a sense of value, stability, and professional fulfillment within the academic environment. Ultimately, their research underscores the importance of equitable reward systems as a key driver of faculty motivation, institutional loyalty, and long-term organizational success in the higher education sector.

According to Ahmad and AminiYekta (2010), who investigated the impact of leadership behavior on perceived organizational support on the job satisfaction of Iranian employees, the researchers selected a sample that consists of (136) employee of Tehran Cement Company, the study results show that show that there is significant relationship between leadership behavior style and both intrinsic and extrinsic job satisfaction. Furthermore, the study results revealed that perceived organizational support affects extrinsic job satisfaction significantly.

3. Impact of Shift work on employees' Job Satisfaction

Banakhar (2017) investigated the impact of 12-hour shifts in comparison to 8-hour shifts on nurses' health, wellbeing, and job satisfaction, the study results revealed that (12) researchers, 3 studies reported that 12-hour shifts had a significant impact on nurses' health and wellbeing, for instance cognitive anxiety, musculo-skeletal disorders, sleep disturbance, and role stress. On the other hand, there was insignificant relationship between 12- and 8-hour shifts with digestive and cardiovascular disorders, psychological ill health, and somatic anxiety. Of the 4 studies measuring the impact of 12-hour shifts on fatigue, three researchers indicated that the nurses experienced more fatigue in the 12-hour shifts in comparison to 8-hour shifts. However, one research did not reveal a significant relationship between fatigue and critical thinking performances between 12- and 8-hour shifts. Nine of the 12 researches measured job satisfaction in 12- and 8-hour shifts, five researchers revealed a greater

dissatisfaction concerning 12-hour shifts. Whereas, three researchers revealed that the nurses were more satisfied with 12-hour shifts than with 8-hour shifts; but one research indicated that there was a significant relationship between the two shifts considering pay and professional status. Eventually, the study results revealed that 12-hour shifts affects negatively health concerns and job dissatisfaction. On the other hand, there is a necessity for more empirical evidence to support this.

According to Greubel et al. (2016), there is a positive relationship between job satisfaction and employees' working hours; employees who are satisfied with the length of their working hours tend to be more satisfied with their jobs in general. Furthermore, organization's climate and conditions affect positively on employees' satisfaction and increasing employees' commitment. Furthermore Wolter et al., (2016) found that there is relationship adopting part time arrangements and employees' productivity and commitment.

Figure 6: Worker-friendly scheduling impacts on employees' job satisfaction
(Source: Shiftboard, 2023)



Moradi, et al., (2014) investigated the relationship between outbreak of shift work-related disorders and the relationship between shift work and job satisfaction to help ascertain prospective strategies for developing the quality of life of shift-working nurses of Ilam University's subsidiary hospitals. The researcher in this study used the cross-sectional study, the researcher selected a sample that consists of (84) shift-working nurses at three hospitals randomly. The researcher used the Shift worker Survey of (SOS). The study results revealed that Psychological disorder (96.4%) has the most prevalent shift work-related problem then followed by social life (84.5%) and digestive problems (81%), respectively. The study results also how that nurses who had selected shift work voluntarily expressed higher job

satisfaction significantly as compared with those who were forced to work on shift ($P < 0.05$).

Estryn-Béhar & Heijden (2012) evaluated the impact of extended work shifts on employee fatigue, health, satisfaction, work/family balance, and patient safety through using a multivariate analysis concerning 25,924 European nurses, including (20) explanatory variables, the study results show that work schedule itself is not a fundamental determinant for employee fatigue, health, satisfaction, work/family balance. Furthermore, the study results revealed that Nurses accepts night shifts or 12-hour shift to decrease their work/home conflicts. On the other hand, at the expense of the patient's safety, as well as their own health and safety. Thus, it is interesting to develop measures, for instance extended child care, association of nurses to the elaboration of their Rota, 9- or 10-hour shifts in the afternoon, permitting rests throughout night shifts, and decreasing of changing shifts with short notice. The researchers recommended that work schedules ought to be organized to permit time for shift handover, social support and team building.

4. Research Framework

The purpose of this study is to investigate the impact of work shift system on employees' satisfaction in private sector in Palestine by analyzing and contrasting the factors affecting job satisfaction of shift workers at private sector in Palestine. Job satisfaction factors in this research as employees' satisfaction about demographic properties, job related factors, and work environment factors. The researcher determined the demographic factors as control variables, shift work system was determined as independent variables and job satisfaction as dependent variable. Control variables include age, gender, and education, and marriage, type of job, work department, monthly income and employment status.

Yang and Yoon (2014) investigated the main determinants of job satisfaction of shift work employees in Hospitals sector through using the survey as an instrument of study; the researcher selected a sample from seven general university hospitals in South Korea. The researcher analyzed the data through using SPSS program the results of the study revealed that shift employees have to be provided with permanent employee status and a pleasant work environment, different welfare and benefits leads to an increase in employees feeling with job satisfaction.

Moradi et. al. (2014) investigated the relationship between shift work and job satisfaction in hope to develop strategies for increasing the shift work nurses' quality of life in Ilam University's subsidiary hospitals. The researchers used a cross-sectional study, 84 shift-working nurses at three hospitals were randomly selected. The researcher used the questionnaire as an instrument of study. The study results revealed that the main problem of shift work system is Psychological disorder then social life and digestive problems. The nurses who had selected shift work voluntarily presented considerably higher job satisfaction as compared with those who were forced to work on shift.

Tahghighi et. al. (2017) invested the impact of shift work on the psychological functioning and resilience of nurses, the researchers collected the secondary data from databases using the combination of keywords: nurse, shift work; rotating roster; night shift; resilient; hardiness; coping; well-being; burnout; mental health; occupational stress; compassion fatigue; compassion satisfaction; stress; anxiety; depression. The study results revealed there is negative relationship between shift and psychological functioning in nurses.

III. Research Methodology

Research methodology is an approach to analytically solve a research problem by rationally adapting various steps (Scridhar, 2008). This section of the study will present the research methodology that the researcher will use to carry out the research. This section of the study will discuss the research design, the study population, the sample and sampling techniques, data collection methods, data analysis approach and presentation methods and the research procedures.

1. Research Approach

This was a descriptive study conducted using a researcher-constructed questionnaire, the research approach is set of process and procedures the researcher follows for collecting analyzing, interpreting, and reporting data in research studies, the researcher in this study used the questionnaire to collect the primary data through collecting the opinion of workers in private sector organizations in Palestine. The research used the questionnaire as it is easy to use and collect information and to investigate the opinion of large number of respondents (Ghauri et al., 1995).

2. Research Design

The researcher in this study will adopt the deductive approach as it is considered straightforward approach and the steps to achieve the objectives of the study and complete the study starts with collecting secondary data through journals and articles then collecting the primary data through questionnaire that will be analyzed through SPSS program and to test the validity of the hypotheses.

3. Research procedure

To find out correct answers to the research questions, it is important to plan a research strategy and procedure. Therefore, the research procedure has to contain various types of methods and tools that are required to finish the study. Furthermore, it is important to use tools and research methods that measure the reliability and validity of the material and data collected. Besides, it is essential that all the material and collected data is analytically analyzed and studied.

The research procedure for this study started by collecting information attributed to the impact of shift work on employees' satisfaction, after that the research questions were designed. Questions for the questionnaire were structured based on the research from previous studies and researches that were conducted about the topic of the study in different locations and contexts in different countries. Data was collected from both secondary and primary data and then were analyzed and discussed to specify the most important findings of the study as well as some conclusions were drawn based on the results associated to the research questions.

4. Research Instruments

This research used both primary and secondary sources of data through using a questionnaire to specify matters attributed to the study and this is to answer this significant question whether the job satisfaction of employees is affected by shift work arrangements. The research administered the questionnaire for a sample that consists of (60) employees.

The primary data for this study was collected through using a questionnaire. The researcher selected the questionnaire as an instrument of study since it is considered easy to use and collect a large number of respondents. Besides, it ensured that data collection will be standardized the way that each respondent got the same question and in the same format. The researcher used the questionnaire to allow collection of original data from the sample of the population within a short time and at low cost for purposes of describing the entire population (Ogutu, 2012).

5. Sampling Method and Procedures

Sekaran (2001) define population of the study as the whole group of people, actions or things of interest that the researcher wishes to investigate. On the other hand, the target population is the total collection of components about which the researcher wishes to make some inferences. The target population for this research is the private sector employees in Ramallah city.

Sampling Design: sampling is defined as the process by which a researcher selects a sample of participants for a study from the population of interest. Thus, a sample is the segment of the population of interest that is selected for a study (DoylePortillo,

2009). Furthermore, a sampling frame is a complete and correct list of population members only (Cunanan& Cruz 2008). The researcher will select a sample that consists of (60) employees.

6. Data Analysis

The researcher will carry out the data analysis through using frequency distribution and percentages that are used to specify determine the proportion of respondents selecting the different responses. The collected data will be presented in the form of tables and charts to confirm easy understanding of the analyses.

7. Research Validity and Reliability

Validity is defined as the degree to which the test-items measure what they aim to do and reliability as the consistence of a score from one occasion to the next. The researcher in this study will measure and test the validity and reliability through using expert judgment of the research supervisor. The researcher will use Cronbach alpha to test the reliability of the questionnaire.

IV. Findings of The Study

This chapter represents the results obtained from the survey responses from 60 employees, and the statistical analysis conducted using frequency distribution and percentages that are used to determine the proportion of respondents selecting the different responses. The collected data are presented in the form of tables and charts to confirm easy understanding of the analyses.

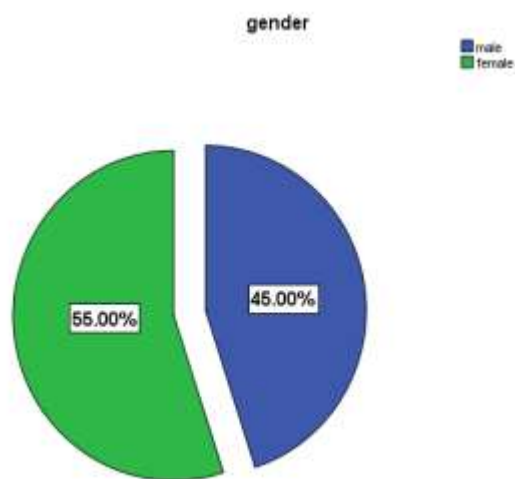
1. Demographics

1.1. Gender

Table 1: Results for participants gender statistics

Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	27	45.0	45.0	45.0
	female	33	55.0	55.0	100.0
	Total	60	100.0	100.0	

Figure 7: Results for participants gender statistics



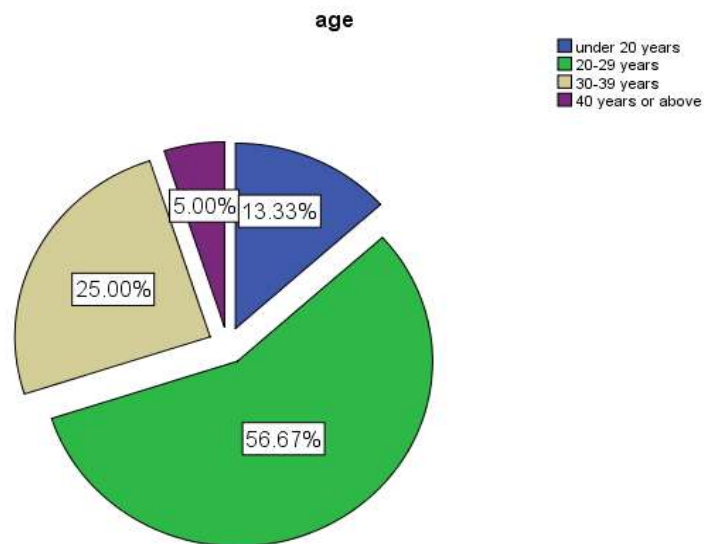
The study results revealed that 55% of the respondents are females while 45% are males.

1.2. Age

Table 2: Results for participants age statistics

		Age			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	under 20 years	8	13.3	13.3	13.3
	20-29 years	34	56.7	56.7	70.0
	30-39 years	15	25.0	25.0	95.0
	40 years or above	3	5.0	5.0	100.0
	Total	60	100.0	100.0	

Figure 8: Results for participants age statistics



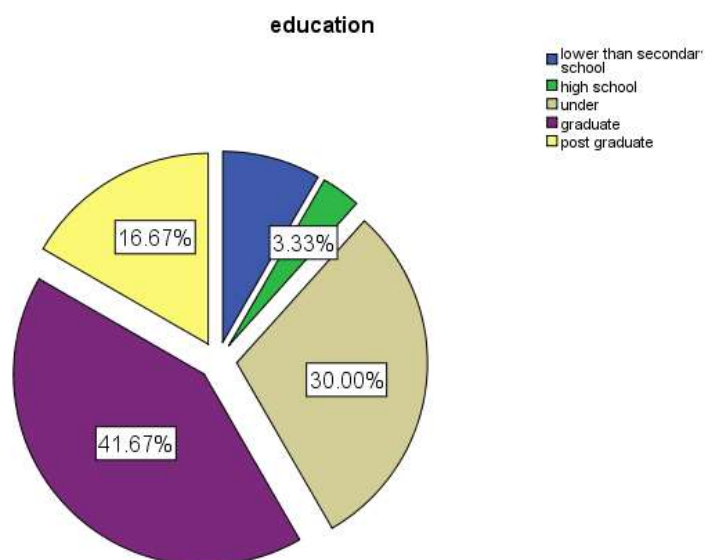
Most of sample members that is about 56.67% of sample members their ages between 20 – 29 years, 25.00% of sample members their ages between 30 – 39 years, 13.3% under 20 years.

1.3. Education

Table 3: Results for participants education statistics

Education					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	lower than secondary school	5	8.3	8.3	8.3
	high school	2	3.3	3.3	11.7
	Under	18	30.0	30.0	41.7
	Graduate	25	41.7	41.7	83.3
	post graduate	10	16.7	16.7	100.0
	Total	60	100.0	10.0	

Figure 9: Results for participants education statistics



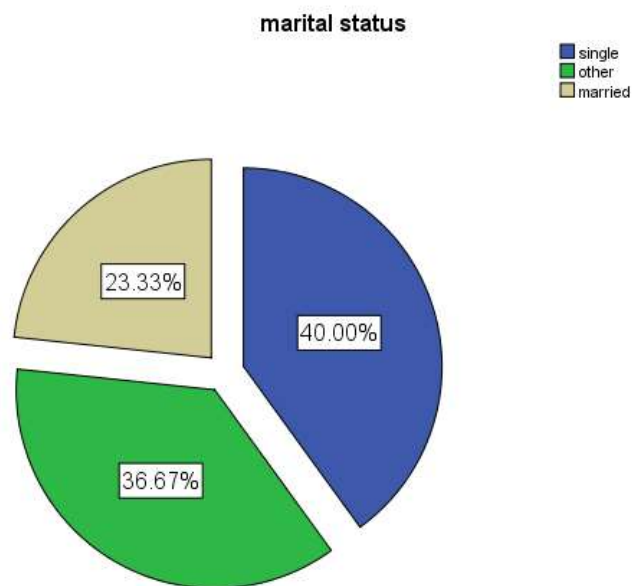
The highest percentage of respondents assured that they have graduate degree while 30.00% expressed that they have under.

1.4. Marital status

Table 4: Results for participants marital status statistics

		marital status			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	single	24	40.0	40.0	40.0
	other	22	36.7	36.7	76.7
	married	14	23.3	23.3	100.0
	Total	60	100.0	100.0	

Figure 10: Results for participants marital status statistics



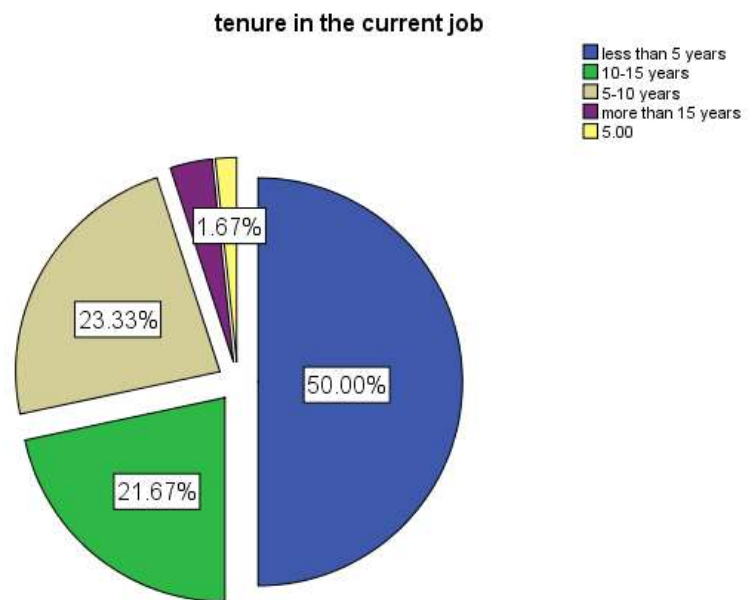
The study results demonstrated that the highest portion of the sample are singly employees according to their marital status while 36.7% are others and 23.3% are married.

1.5. Tenure in the current job

Table 5: Results for participants Tenure in the current job statistics

tenure in the current job					
		Frequenc y	Percent	Valid Percent	Cumulative Percent
Valid	less than 5 years	30	50.0	50.0	50.0
	10-15 years	14	23.3	23.3	73.3
	5-10 years	14	23.3	23.3	96.7
	more than 15 years	2	3.3	3.3	100.0
	Total	60	100.0	100.0	

Figure 11: Results for participants Tenure in current job statistics



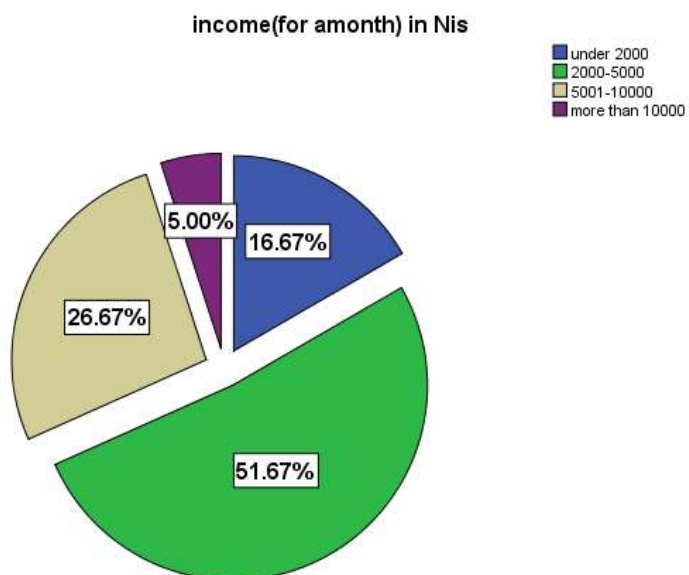
The highest percentage of sample members according to tenure in the current job less than 5 years with a percentage (50.00%), then comes 5-10 years with a percentage (23.33%), and 10 -15 years with a percentage (23.33%).

1.6. Income

Table 6: Results for Income (for a month) in Nis participants statistics

income (for a month) in Nis					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	under 2000	10	16.7	16.7	16.7
	2000-5000	31	51.7	51.7	68.3
	5001-10000	16	26.7	26.7	95.0
	more than 10000	3	5.0	5.0	100.0
	Total	60	100.0	100.0	

Figure 12: Results for Income (for a month) in Nis participants statistics



Most of the sample members their salaries are 2000 -5000 Nis as their percentage is 51.7%.

2. Suitability of the shift work arrangements

The tables show the means, standard deviation and the percentage of agreement in the statement of the first dimension that is suitability of the shift work arrangements.

Table 7: Results for suitability of the shift work arrangements

No	Field	N	Average	STD	Percentage
1	The shift work style suits the nature of my business activities	60	3.70	0.83	74%
2	The shift work style suits the nature of my activities in the organization	60	3.70	0.59	74%
3	The goals of the work require to follow shift work style	60	3.40	0.91	68%
4	The application of the shift system provides flexibility in working hours for employees	60	3.23	0.74	65%
5	The application of the shift work style increases employee's feeling with stress and pressure	60	3.15	1.01	63%
Mean		60	3.44	0.82	69%

The results of the study expressed that the mean of the respondents for the first dimension that is suitability of the shift work arrangements is (69%) that is respondents believe that there is moderate to level of satisfaction that suitability of the shift work arrangements, and the highest accepted statement of the dimension that is “The shift work style suits the nature of my business activities” with a mean of (3.70), then comes the statement “The shift work style suits the nature of my activities in the organization” with a mean of (3.70).

While the least accepted statement that is “The application of the shift work style increases employee's feeling with stress and pressure” with a mean of (3.15) then the statement.

3. Advantage of shift work system

The tables show the means, standard deviation and the percentage of agreement in the statement of the second dimension that is Advantage of shift work system.

Table 8: Results for advantage of shift work system

No	Field	N	Average	STD	Mean
1	The shift work system fits the objectives set for the work	60	3.73	0.58	75%
2	The shift work system allows the employees to balance between work requirements and daily life requirements	60	3.67	0.90	73%
3	The application of the shift work arrangements contributes to the completion of my tasks at their appointed time	60	3.55	0.91	71%
4	Shift work system allows employees to concentrate highly in the tasks assigned for the employees	60	3.52	0.81	70%
5	Shift work style increases employee satisfaction in the work	60	3.50	0.98	70%
6	Shift system motivate employees	60	3.47	0.75	69%
7	The shift work system gives me greater freedom to choose the time that suits me best	60	3.30	1.00	66%
8	The application of the shift work system limits the problems among colleagues	60	3.30	1.00	66%
9	Shift work system at work provides appropriate rest times for employees	60	3.18	1.03	64%
Mean		60	3.47	0.88	69%

The results of the study expressed that the mean of the respondents for the second dimension that is Advantage of shift work system is (69%) that is respondents believe that there is moderate to level of Advantage of shift work system, and the highest accepted statement of the dimension that is “The shift work system fits the objectives set for the work.” with a mean of (3.73), then comes the statement “The shift work system allows the employees to balance between work requirements and daily life requirements” with a mean of (3.67). While the least accepted statement that is “Shift work system at work provides appropriate rest times for employees” with a mean of (3.18).

4. Disadvantages of shift work systems

The tables show the means, standard deviation and the percentage of agreement in the statement of the third dimension that is Disadvantages of shift work systems.

Table 9: Results for disadvantages of shift work systems

No	Field	N	Average	STD	Mean
1.	There are many cases of absence and apologies among employees in evening shifts	60	4.6	6.5	92%
2.	Prolonged periods of night shifts negatively affect the health of workers (taking drugs, smoking)	60	3.9	0.8	77%
3.	Long working hours in shifts of more than 8 hours lead to disturbances in the workers' mood	60	3.8	0.8	76%
4.	Changing periods of work from night shifts to day-to-day and vice versa causes sleeping disorders for the employees which affects their performance	60	3.7	1.0	74%
5.	The rotation method increases the power of attorney between the employees, which causes the execution of orders	60	3.6	0.8	72%

6	The concentration of people with seizures is particularly low, especially nighttime, which affects their productivity	60	3.6	0.9	71%
7	The shift work style increases resignations from work	60	3.5	0.9	70%
8	The shift work style leads to frequent complaints from employees	60	3.5	0.9	69%
9	The ability to deal with emergencies that require a large number of workers is weakened	60	3.4	1.1	69%
10	Periodic meetings between staff and their leaders are reduced	60	3.4	0.8	68%
Mean		60	3.7	1.5	74%

The results of the study expressed that the mean of the respondents for the third dimension that Disadvantages of shift work systems is (74%) that is respondents believe that there is moderate to level of Disadvantages of shift work systems, and the highest accepted statement of the dimension that is “There are many cases of absence and apologies among employees in evening shifts.” with a mean of (4.6), then comes the statement “Prolonged periods of night shifts negatively affect the health of workers (taking drugs, smoking)” with a mean of (3.9). While the least accepted statement that is “Periodic meetings between staff and their leaders are reduced” with a mean of (3.4).

5. Hypothesis testing

5.1. Hypothesis 1

⇒ There is no significant relationship at ($\alpha \leq 0.05$) between the Impact Of shift Work System on Employees Satisfactions and Gender.

The table shows the significant relationship between the Impact Of shift Work System on Employees Satisfactions and Gender.

Table 10: Results for testing the hypothesis 1

Field	Gender	N	Mean	Std. Deviation	Std. Error Mean	F	Sig.
suitability of the shift work arrangements	male	27	3.5	0.4	0.1	.644	.426
	female	32	3.4	0.4	0.1		
advantages of shift work systems	male	27	3.4	0.6	0.1	.003	.958
	female	32	3.6	0.5	0.1		
Disadvantages of shift work systems	male	27	3.7	1.2	0.2	5.662	.021
	female	32	3.9	0.4	0.1		

Sign. At ($\alpha \leq 0.05$)

As we can see from the above table there is no significant relationship the impact of shift work system on employee's satisfaction attributed Gender as the value of sig. is more than (0.05) for all dimensions of the questionnaire. Except for the third dimension that is the disadvantages of implementing shift work system as the significant level is less than 0.05 and the mean for the females is 3.90 while for males is 3.7 this means that females stated that there is disadvantages for shift work system more than what is perceived by males.

5.2. Hypothesis

⇒ There is no significant relationship at ($\alpha \leq 0.05$) for the Impact Of shift Work System on Employees Satisfactions and age.

The table shows the significant relationship between the Impact Of shift Work System on Employees Satisfactions and age.

Table 11: Results for testing the hypothesis 2

Field	Levels	Sum of Squares	Degrees	Average Squares	F Value	Sig. Level
suitability of the shift work arrangements	Between Groups	.870	3	.290	1.72	.172
	Within Groups	9.410	56	.168		
	Total	10.279	59			
advantages of shift work systems	Between Groups	1.686	3	.562	2.125	.107
	Within Groups	14.810	56	.264		
	Total	16.496	59			
Disadvantages of shift work systems	Between Groups	1.685	3	.562	.767	.517
	Within Groups	40.997	56	.732		
	Total	42.682	59			

Sign. At ($\alpha \leq 0.05$)

As we can see from the above table there is no significant relationship between the Impact Of shift Work System on Employees Satisfactions and age as the value of sig. is more than (0.05) for all dimensions of the questionnaire.

5.1. Hypothesis 3

⇒ There is no significant relationship at ($\alpha \leq 0.05$) between the Impact Of shift Work System on Employees Satisfactions and marital status.

The table shows the significant relationship between the Impact Of shift Work System on Employees Satisfactions and marital status.

Table 12: Results for testing the hypothesis 3

Field	Levels	Sum of Squares	Degrees	Average Squares	F Value	Sig. Level
suitability of the shift work arrangements	Between Groups	.121	2	.061	.341	.713
	Within Groups	10.158	57	.178		
	Total	10.279	59			
advantages of shift work systems	Between Groups	.236	2	.118	.413	.663
	Within Groups	16.260	57	.285		
	Total	16.496	59			
Disadvantages of shift work systems	Between Groups	.051	2	.025	.034	.967
	Within Groups	42.631	57	.748		
	Total	42.682	59			

Sign. At ($\alpha \leq 0.05$)

As we can see from the above table there is no significant relationship between the Impact Of shift Work System on Employees Satisfactions and marital status, as the value of sig. is more than (0.05) for all dimensions of the questionnaire.

5.4. Hypothesis 4

⇒ There is no significant relationship at ($\alpha \leq 0.05$) the Impact Of shift Work System on Employees Satisfactions and education.

The table shows the significant relationship between the Impact Of shift Work System on Employees Satisfactions and education.

Table 13: Results for testing the hypothesis 4

Field	Levels	Sum of Squares	Degrees	Average Squares	F Value	Sig. Level
suitability of the shift work arrangements	Between Groups	.637	4	.159	.908	.466
	Within Groups	9.642	55	.175		
	Total	10.279	59			
advantages of shift work systems	Between Groups	.261	4	.065	.221	.926
	Within Groups	16.235	55	.295		
	Total	16.496	59			
Disadvantages of shift work systems	Between Groups	1.510	4	.378	.504	.733
	Within Groups	41.171	55	.749		
	Total	42.682	59			

Sign. At ($\alpha \leq 0.05$)

As we can see from the above table there is no significant relationship between the Impact Of shift Work System on Employees Satisfactions and education as the value of sig. is more than (0.05) for all dimension.

5.5. Hypothesis 5

⇒ There is no significant relationship at ($\alpha \leq 0.05$) between the Impact Of shift Work System on Employees Satisfactions and tenure in the current job.

The table shows the significant relationship between the Impact Of shift Work System on Employees Satisfactions and tenure in the current job.

Table 14: Results for testing the hypothesis 5

Field	Levels	Sum of Squares	Degrees	Average Squares	F Value	Sig. Level
suitability of the shift work arrangements	Between Groups	.526	4	.132	.742	.568
	Within Groups	9.753	55	.177		
	Total	10.279	59			
advantages of shift work systems	Between Groups	1.085	4	.271	.968	.432
	Within Groups	15.411	55	.280		
	Total	16.496	59			
Disadvantages of shift work systems	Between Groups	1.477	4	.369	.493	.741
	Within Groups	41.204	55	.749		
	Total	42.682	59			

Sign. At ($\alpha \leq 0.05$)

As we can see from the above table there is no significant relationship between the Impact Of shift Work System on Employees Satisfactions and tenure in the current job as the value of sig. is more than (0.05) for the all dimensions.

5.6. Hypothesis 6

⇒ There is no significant relationship at ($\alpha \leq 0.05$) between the Impact Of shift Work System on Employees Satisfactions and income.

The table shows the significant relationship between the Impact Of shift Work System on Employees Satisfactions and income.

Table 15: Results for testing the hypothesis 6

Field	Levels	Sum of Squares	Degrees	Average Squares	F Value	Sig. Level
suitability of the shift work arrangements	Between Groups	2.087	4	.522	3.503	.13
	Within Groups	8.192	55	.149		
	Total	10.279	59			
advantages of shift work systems	Between Groups	2.181	4	.545	2.095	.094
	Within Groups	14.315	55	.260		
	Total	16.496	59			
Disadvantages of shift work systems	Between Groups	.435	4	.109	.142	.966
	Within Groups	42.247	55	.768		
	Total	42.682	59			

Sign. At ($\alpha \leq 0.05$)

As we can see from the above table there is no significant relationship between the impact of shift Work System on Employees Satisfactions and income as the value of sig. is more than (0.05).

Conclusion

The study results demonstrated the following findings:

- The results of the study expressed that there is moderate level of suitability for implementing the shift work system in Palestinian organizations as the shift work style suits the nature of the employee's activities in the organization. Besides, the application of the shift system provides flexibility in working hours for employees.
- The study results revealed that there are several advantages for implementing shift work system in Palestinian organizations and the most important advantages are that the shift work system fits the objectives set for the work. Besides, this system allows the employees to balance between work requirements and daily life requirements. Furthermore, it provides appropriate rest times for employees.
- There are several disadvantages for shift work system as there are many cases of absence and apologies among employees in evening shifts. Besides, prolonged periods of night shifts negatively affect the health of workers (taking drugs, smoking). Moreover, long working hours in shifts of more than 8 hours lead to disturbances in the workers' mood. Besides, changing periods of work from night shifts to day-to-day and vice versa causes sleeping disorders for the employees which affects their performance. Eventually, the rotation method increases the power of attorney between the employees, which causes the execution of orders.
- The study results revealed that females expressed that there are several disadvantages for shift work system on their satisfaction and performance more than males this could be due to traditional, social cultural barriers that affect women participation in workplace more than males.

Recommendations

Practical Implications

The researcher recommends that Palestinian organizations have to pay greater attention for the effects of work shift system on employees' satisfaction and performance as the personalities and behavior of employees is different as organizations may find that some employees prefer shift work schedules while others find it is difficult to exercise shift work due to cultural and social restrictions that face the females working shift work or to allow women to get out of home at night.

The researcher recommends Palestinian organizations to interest on the impact of shift work on employees' performance and satisfaction as this type of work arrangement negatively affects health employees. Thus, organizations have to develop training programs and workshops to help them to cope up with such system.

The researcher recommends that Palestinian organizations and companies that adopt shift work systemic arrangements have to adopt a participation decision making to allow employees more flexibility to design their time work arrangements to be productive and efficient employees.

Theoretical Implications

The researcher found that there is scarcity of studies in Palestinian context that investigated the impact of shift work on employee's performance and satisfaction in Palestinian context. However, there is great interest in western and developed countries in this topic through discussing the impact of shift work on employee's performance and employee's satisfaction and the best strategies to develop shift work system in organizations as these organizations are in process twenty-four hours seven days a week. Thus, there is a necessity for further studies in this field. Furthermore, the researcher in this study used the qualitative research approach as a method for conducting this research the researcher suggests further studies in this field through using the quantitative and qualitative research approach through using both questionnaire that coverage larger number of employees and using the interview or focus group to collect more detailed information.

Bibliography

- Abdolshah, M., Khatibi, S. A. M., & Moghimi, M. (2018). Factors Influencing Job Satisfaction of Banking Sector Employees. *Journal of Central Banking Theory and Practice*, 7(1), 207-222
- Aisbett, B., Condo, D., Zacharewicz, E., & Lamon, S. (2017). The Impact of Shiftwork on Skeletal Muscle Health. *Nutrients*, 9(3), 248. <https://doi.org/10.3390/nu9030248>
- Ariffin Ahmad, Z., & AminiYekta, Z. (2010). Relationship between perceived organizational support, leadership behavior, and job satisfaction: An empirical study in Iran. *Intangible Capital*, 6(2).
- Ball, J., Day, T., Murrells, T., Dall'Ora, C., Rafferty, A. M., Griffiths, P., & Maben, J. (2017). Cross-Sectional Examination of The Association Between Shift Length and Hospital Nurses Job Satisfaction and Nurse Reported Quality Measures. *BMC Nursing*, 16(1), 26.
- Banakhar, M. (2017). The Impact Of 12-Hour Shifts on Nurses' Health, Wellbeing, And Job Satisfaction: A Systematic Review. *Journal of Nursing Education and Practice*, 7(11), 69
- Barker, L. M., & Nussbaum, M. A. (2011). Fatigue, Performance and The Work Environment: A Survey of Registered Nurses. *Journal of Advanced Nursing*, 67(6), 1370-1382.
- Chang, S. C., & Lee, M. S. (2006). Relationships among personality traits, job characteristics, job satisfaction and organizational commitment—an empirical study in Taiwan. *The Business Review*, 6(1), 201-207.
- Estry-Béhar, M., & Van Der Heijden, B. I. (2012). Effects of Extended Work Shifts on Employee Fatigue, Health, Satisfaction, Work/Family Balance, And Patient Safety. *Work*, 41(Supplement 1), 4283-4290.
- Fossum, I. N., Bjorvatn, B., Waage, S., & Pallesen, S. (2013). Effects of shift and night work in the offshore petroleum industry: a systematic review. *Industrial health*, 51(5), 530-544.
- Graw M., Ruhm D., (2025), 24-hour Shift Schedule: Types, Examples & Tips, Connecteam, available in: <https://connecteam.com/e-24-hour-shift-schedule/>

- Greubel, J., Arlinghaus, A., Nachreiner, F., & Lombardi, D. A. (2016). Higher risks when working unusual times? A cross-validation of the effects on safety, health, and work–life balance. *International archives of occupational and environmental health*, 89(8), 1205-1214.
- Guyette, F. X., Morley, J. L., Weaver, M. D., Patterson, P. D., & Hostler, D. (2013). The Effect of Shift Length on Fatigue and Cognitive Performance in Air Medical Providers. *Prehospital Emergency Care*, 17(1), 23-28.
- Jeet, V., & Sayeeduzzafar, D. (2014). A Study of HRM Practices and Its Impact on Employees Job Satisfaction in Private Sector Banks: A Case Study of HDFC Bank. *International Journal of Advance Research in Computer Science and Management Studies*, 2(1), 62-68.
- Kantermann, T., Juda, M., Vetter, C., & Roenneberg, T. (2010). Shift-Work Research: Where Do We Stand, Where Should We Go? *Sleep and Biological Rhythms*, 8(2), 95-105.
- Konopliov A. (2024), 2024 Statistics on America's Off-Hour Workforce, Redline.digital, available in: <https://redline.digital/shift-work-statistics/>
- Kord, B., & Tamini, B. K. (2012). A cross-cultural study of job satisfaction and organizational commitment of bank employees in Iran and India. *Apeejay Journal of Management and Technology*, 7(1), 13-18.
- Kugler, Franziska, Andrea Wiencierz, and Christoph Wunder. 2014. “Working Hours Mismatch and Well-Being: Comparative Evidence from Australian and German Panel Data.”
- Moradi, S., Farahnaki, Z., Akbarzadeh, A., Gharagozlou, F., Pournajaf, A., Abbasi, A. M., ... & Karchani, M. (2014). Relationship Between Shift Work and Job Satisfaction Among Nurses: A Cross-Sectional Study. *International Journal of Hospital Research*, 3(2), 63-68.
- Nawab, S., & Bhatti, K. K. (2011). Influence of Employee Compensation on Organizational Commitment and Job Satisfaction: A Case Study of Educational Sector of Pakistan. *International Journal of Business and Social Science*, 2(8)
- Niu, S. F., Chu, H., Chen, C. H., Chung, M. H., Chang, Y. S., Liao, Y. M., & Chou, K. R. (2013). A Comparison of The Effects of Fixed-And Rotating-Shift Schedules on Nursing Staff Attention Levels: A Randomized Trial. *Biological Research for Nursing*, 15(4), 443-450.

- O'Neal, A. D. (2012). The Effects of Work Schedule Flexibility on Job Satisfaction of Telephone Advice Nurses.
- Panghal, S. and Bhambu, S. (2013). Factors influencing job satisfaction of banking sector employees in India. *International Journal of New Innovations in Engineering and Technology*, 1(3), 41-44.
- Rønsen, M., & Kitterød, R. H. (2010). What makes full-time employed women satisfied with their working hours?
- Saksvik-Lehouillier, I., Bjorvatn, B., Hetland, H., Sandal, G. M., Moen, B. E., Magerøy, N., ... & Pallesen, S. (2013). Individual, Situational and Lifestyle Factors Related to Shift Work Tolerance Among Nurses Who Are New to And Experienced in Night Work. *Journal of Advanced Nursing*, 69(5), 1136-1146.
- Sehgal, S. (2012). Job Satisfaction of Bank Employees in Shimla-A Comparative Study of Private and Public Sector Bank (Axis Bank and UCO Bank). *International Journal of Marketing, Financial Services and Management Research*, 1(7), 5. 25.
- Shiftboard (2023), The State of the Hourly Worker, Shiftboard Inc. available in: https://www.shiftboard.com/wp-content/uploads/2023/04/state-of-the-hourly-worker-report.pdf?utm_source=chatgpt.com
- Stimpfel, A. W., Lake, E. T., Barton, S., Gorman, K. C., & Aiken, L. H. (2013). How differing shift lengths relate to quality outcomes in pediatrics. *The Journal of nursing administration*, 43(2), 95.
- Tahghighi, M., Rees, C. S., Brown, J. A., Breen, L. J., & Hegney, D. (2017). What Is the Impact of Shift Work on The Psychological Functioning and Resilience of Nurses? An Integrative Review. *Journal of Advanced Nursing*.
- Wong I, McLeod CB, Demers P. (2011), *Scandinavian Journal of Work, Environment & Health*. 2011;37(1):54-61.
<https://pwhs.ubc.ca/research/determinants-of-work-injury-and-illness/shift-work-and-injuries/>
- Worksafe (2021), *Fatigue: Managing the risks of shift work*; Worksafe, Mahi Haumaru Aotearoa; available in: <https://www.worksafe.govt.nz/topic-and-industry/fatigue/managing-the-risks-of-shift-work/>
- Yang, J. H., & Yoon, J. A. (2014). A Study on Factors Affecting Job Satisfaction of Shift Workers in Hospitals.

List of figures

Figure 1: Example of a 4 on, 3 off pattern for a 24-hour work schedule with different colors representing day, swing, or night shifts.	5
Figure 2: A model for the potential impact of shiftwork on skeletal muscle health (Source: Aisbett et al.; 2017)	8
Figure 3: Factors hindering professional cleaners from working day shifts.....	9
Figure 4: Percent of workers compensated for an injury, by shift type, Canada, 1996-2006.....	10
Figure 5: Circadian rhythm in alertness/sleepiness over a 24-hour period.....	11
Figure 6: Worker-friendly scheduling impacts on employees' job satisfaction	15
Figure 7: Results for participants gender statistics	21
Figure 8: Results for participants age statistics	22
Figure 9: Results for participants education statistics	23
Figure 10: Results for participants marital status statistics.....	24
Figure 11: Results for participants Tenure in current job statistics	25
Figure 12: Results for Income (for a month) in Nis participants statistics.....	26

List of tables

Table 1: Results for participants gender statistics.....	21
Table 2: Results for participants age statistics	22
Table 3: Results for participants education statistics	23
Table 4: Results for participants marital status statistics	24
Table 5: Results for participants Tenure in the current job statistics.....	25
Table 6: Results for Income (for a month) in Nis participants statistics.....	26
Table 7: Results for suitability of the shift work arrangements.....	27
Table 8: Results for advantage of shift work system	28
Table 9: Results for disadvantages of shift work systems	29
Table 10: Results for testing the hypothesis 1	31
Table 11: Results for testing the hypothesis 2	32
Table 12: Results for testing the hypothesis 3	33
Table 13: Results for testing the hypothesis 4	34
Table 14: Results for testing the hypothesis 5.....	35
Table 15: Results for testing the hypothesis 6	36

Annexes

The Survey conducted for this research

I am conducting this research as a partial fulfillment for the graduation from The Hungarian University of Agriculture and Life Sciences. "Business Administration Department". My research topic is **“The impact of shift work system on employees’ satisfaction in private sector in Palestine”**

I would appreciate your cooperation by filling the questionnaire, all the information provided would be confidential and for research uses only.

Thank you for your cooperation

Part One: Personal and Demographic Questions:

1. Gender

- Female
- Male

2. Age

- Under 20 years
- 20 - 29 years
- 30 -39 years
- 40 years or above

3. Marital status

- Divorced
- Single
- Married
- Other

4. Education

- Lower than secondary school
- High school
- Under graduate
- Post graduate

5. Tenure in the current job

- Less than 5 years
- 10 -15 years
- 5- 10 years
- More than 15 years

6. Income (for a month) in Nis

- 2000 – 5,000
- more than 10,000
- Under 2000
- 5001 – 10000

Part Two: Please read each sentence and indicate how much you agree with the statement by putting (√) in the box that best describe you

- **Part one: suitability of the shift work arrangements**

	<i>Question</i>	<i>Strongly Agree</i>	<i>Agree</i>	<i>No Opinion</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
1.	The shift work style suits the nature of my business activities					
2.	The shift work style suits the nature of my activities in the organization					
3.	The goals of the work require to follow shift work style					
4.	the shift work style increases employee`s feeling with stress and pressure					
5.	application of the shift system provides you with flexibility in working hours					

- **Part two: advantages of shift work systems**

	<i>Question</i>	<i>Strongly Agree</i>	<i>Agree</i>	<i>No Opinion</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
1.	application of the shift work arrangements contributes to the completion of my tasks at their appointed time					
2.	The shift work system allows the employees to balance between work requirements and daily life requirements					
3.	Shift system motivate employees					
4.	Shift work style increases employee satisfaction in the work					
5.	Shift work system allows employees to concentrate highly in the tasks assigned for the employees					
6.	shift work system at work provides appropriate rest times for employees					
7.	The shift work system gives me greater freedom to choose the time that suits me best					
8.	The application of the shift work system limits the conflicts among colleagues that may a rise					

- **Part three: Disadvantages of shift work systems**

	<i>Question</i>	<i>Strongly Agree</i>	<i>Agree</i>	<i>No Opinion</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
1.	Changing periods of work from night to day shifts vice versa causes sleeping disorders for employees					
2.	Prolonged periods of night shifts negatively affect the health of workers					
3.	The shift work style leads to frequent complaints from employees					
4.	The shift work style increases resignations from work					
5.	The deal with emergencies that require a large number of workers is weakened					
6.	concentration of people with low seizures especially nighttime affects their productivity					
7.	There are many cases of absence and apologies among employees in evening shifts					
8.	Periodic meetings between staff and their leaders are reduced					
9.	Long working hours in shifts of more than 8 hours lead to disturbances in the workers' mood					
10.	Applying rotation method reduces coordination among employees and enable administration to set its working conditions					

DECLARATION

Wasim H. M. Al Arabid (name) (student Neptun code: E7RSUX) as a consultant, I declare that I have reviewed the thesis and that I have informed the student of the requirements, legal and ethical rules for the correct handling of literary sources.

I recommend / do not recommend¹ the thesis to be defended in the final examination.

The thesis contains a state or official secret: yes no^{*2}

Date: 2025. November 01.


insider consultant

¹ The appropriate one should be underlined.

² The appropriate one should be underlined.

Declaration of Students and Doctoral Candidates on the Use of Artificial Intelligence (AI)"

1. general information:

Name of the student:	Wasim H. M. Al Arabid
Neptun ID:	E7RSUX
Level of program (mark with X):	<input checked="" type="checkbox"/> BSc/BA <input type="checkbox"/> MSc/MA <input type="checkbox"/> Doctoral School (PhD) <input type="checkbox"/> Other:
Name and code of the subject*:	B-GOD-N-EN-GAZME
Title of the work:	The impact of shift work system on employees' satisfaction in private sector in Palestine

* Not required to be completed in the case of a doctor ral dissertation.

2. Declaration on the Use of AI

I, the undersigned, fully aware of my ethical responsibility, make the following declaration:

(Please choose one of the options below!)

A) I have not used any artificial intelligence system or service.

(If you selected this option, completing the subsequent tables is not required.)

B) I have used an artificial intelligence system or service.

(Please fill in the relevant tables!)

3. Details of Artificial Intelligence Usage

TABLE I: Assistant or Minor Usage (e.g., translation, language proofreading, brainstorming, etc.)

(For these uses, attaching the specific prompts and responses is not required.)

Purpose of Use	Name and Version of the AI Tool Used	Affected Section (if not applicable to the entire text)

TABLE II: Significant Content Contribution (e.g., generating an entire figure or a longer text section)

(In these cases, documenting the key prompts used and the raw responses provided by the AI, and attaching them as an appendix to the work, is required.)

Purpose of Use	Name, Version, and Access Information of the AI Tool Used	Exact Number of the Affected Chapter / Figure / Table	Entry Number of the Appendix Containing the Prompt Log

3/A. Additional Rules Prescribed by the Lecturer (if any)

If the instructor or supervisor of the course has established specific rules or expectations regarding the use of AI tools, please summarize them in the field below:

For example: prohibition of AI use for certain types of tasks; only specific tools are permitted; different citation requirements; documentation format, etc.

Rules Prescribed by the Lecturer or Supervisor

.....

.....

.....

.....

4. Declaration Applicable to All Students:

I declare that I have critically reviewed, edited, and incorporated any content potentially generated by AI in all cases. I take full responsibility for every element of the submitted work, including its originality and scientific validity. I acknowledge that the Hungarian University of Agriculture and Life Sciences may check the submitted work with an artificial intelligence detector and may initiate proceedings if my declaration is found to be false or incomplete.

Place and Date:, 2025.11..... month ..03.. day

Wasim

Signature of the Student

[Handwritten Signature]

Signature of the Advisor/Supervisor