

**HERZBERG'S TWO-FACTOR THEORY, AND KNOWLEDGE
WORKERS' MOTIVATION AND JOB SATISFACTION: A
STUDY ON ACADEMICIANS AT FOUNDATION
UNIVERSITIES**

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IŐIK UNIVERSITY

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ON ACADEMICIANS AT FOUNDATION UNIVERSITIES

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HERZBERG'S "TWO-FACTOR" THEORY, AND KNOWLEDGE WORKERS'
MOTIVATION AND JOB SATISFACTION: A STUDY ON ACADEMICIANS AT
PRIVATE UNIVERSITIES

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ABSTRACT

In recent decades, especially after the third industrial revolution (officially started in the 1950s), a shift can be observed in the world's economy towards a more knowledge-based economy. This was the time when the Two-Factor theory was put forward by Frederick I. Herzberg as a theory of motivation and job satisfaction. Starting from this timeline, the number and importance of knowledge workers have increased with this shift to a more knowledge-based economy. This study aims to investigate one group of knowledge workers, that is, the academicians working at foundation universities in Türkiye. Academicians are an important part and the core center of knowledge, and they contribute greatly to cultivating knowledge workers in many areas. Six research questions were formulated to examine the importance of the hygiene and motivator factors proposed according to Herzberg's theory and the relevancy of certain statements about motivation and job satisfaction in their current universities.

A descriptive research design with an embedded mixed-methods model was applied in this study. A questionnaire, a survey method tool, was used in the study. The questionnaire based on the framework of the Two-Factor Theory was prepared by Filtvedt (2016) and in this thesis it was adapted for academicians.

Quantitative and qualitative data were collected through the questionnaire prepared to be administered via an online survey. The qualitative data was collected through an open-ended question added to the survey for the participants to add any further ideas and comments they might have. Sixty-four academicians working at foundation universities in Türkiye participated in the study.

Descriptive statistics were used for the analysis of the quantitative data. For the qualitative data collected through the open-ended question, content analysis was utilized. The results confirmed that the factors proposed in Herzberg's Two-Factor

Theory were also valid for the participant academicians because of the high percentage of “very important” and “important” responses they gave for each hygiene and motivator factor in the questionnaire in relation to each research question and to the 6 themes observed in their responses for the open-ended question. The participant academicians as knowledge workers at Turkish foundation universities displayed responses highly aligning with Herzberg’s Two-Factor Theory. Looking at the hygiene and motivator factors for each question in terms of the mean and standard deviation values of their responses, it is clear that all factors were found highly important for them.

Although all the factors in Herzberg’s theory were found to be highly important by the academicians, their responses showed that the most important hygiene factors were construed and grouped mainly under three factors Pay, Working Conditions, and Administration/Supervision whereas the most important motivator factors for them were construed and grouped mainly under Growth, The Work Itself and Autonomy.

The ultimate goal of this study was to contribute to the understanding of academicians’ motivation and job satisfaction working for foundation universities (which show great similarities in organizational structure to private universities on a global scale) and their management in an important business sector to be more efficient and successful in today’s knowledge-based economy.

Keywords: Herzberg’s Two-Factor Theory, Motivation, Job Satisfaction, Academicians, Knowledge Workers

HERZBERG'İN ÇİFT-FAKTÖR TEORİSİ VE BİLGİ ÇALIŞANLARININ MOTİVASYONU VE İŞ DOYUMU: VAKIF ÜNİVERSİTELERİNDEKİ AKADEMİSYENLER ÜZERİNE BİR ARAŞTIRMA

ÖZET

Son yıllarda, özellikle (1950'lerden itibaren) üçüncü sanayi devriminden sonra, dünya ekonomisinde daha fazla bilgiye dayalı bir ekonomiye doğru bir kayma gözlemlenmektedir. Bu, Çift-Faktör Teorisinin Frederick I. Herzberg tarafından motivasyon ve iş tatmini teorisi olarak ortaya atıldığı zamandır. Bu süreçten başlayarak, giderek daha fazla bilgiye dayalı bir ekonomiye geçişle birlikte bilgi çalışanlarının sayısı ve önemi artmıştır. Bu çalışma, bilgisiyile emek yaratan bilgi çalışanlarını, daha açık ifade etmek gerekirse, Türkiye'deki vakıf üniversitelerinde görev yapan akademisyenleri incelemeyi amaçlamaktadır. Akademisyenler bilginin önemli bir parçası ve merkezidirler ve birçok alanda bilgi çalışanı yetiştirmeye büyük katkı sağlarlar. Bu araştırma, Herzberg'in teorisinde yer verilen hijyen ve motivasyon faktörlerinin önemini ve vakıf üniversitelerinde çalışan akademisyenlerin motivasyon ve iş tatmini ile ilgili görüşlerini belirlemek amacıyla oluşturulan altı araştırma sorusunu incelemek amacıyla yapılmıştır.

Bu çalışmada gömülü karma yöntem modeline sahip betimsel bir araştırma deseni kullanılmıştır. Araştırmada veri toplama aracı olarak çevrimiçi bir anket kullanılmıştır. Çift-Faktör Teorisi çerçevesinde oluşturulan anket Filtvedt (2016) tarafından hazırlanmış ve akademisyenler için kullanılmak üzere uyarlanmıştır.

Nicel ve nitel veriler, çevrimiçi anket aracılığıyla toplanmıştır; nitel veriler katılımcıların fikir ve yorumlarını eklemeleri için ankete eklenen açık uçlu bir soru aracılığıyla toplanmıştır. Araştırmaya Türkiye'deki vakıf üniversitelerinde görev yapan 64 akademisyen katılmıştır.

Nicel verilerin analizinde betimleyici istatistikler kullanılmıştır. Açık uçlu soru aracılığıyla toplanan nitel verilerin analizi için içerik analizi yapılmıştır. Elde edilen sonuçlar, Çift-Faktör Teorisinde yer verilen faktörleri doğrulamıştır. Türkiye'deki

vakıf üniversitelerinde bilgi çalışanı olarak akademisyenler, Herzberg'in Çift-Faktör Teorisi ile oldukça uyumlu yanıtlar verdiler. Hijyen ve motive edici faktörlerle ilgili her bir soru için verilen cevapların ortalama ve standart sapma değerlerine bakıldığında, akademisyenler için tüm faktörlerin oldukça önemli olduğu açık bir şekilde görülmektedir.

Herzberg'in teorisindeki tüm faktörler akademisyenler tarafından oldukça önemli bulunsa da, veriler incelendiğinde ve verdikleri cevaplar göz önüne alındığında, en önemli hijyen faktörlerinin genel olarak Ücret, Çalışma Koşulları ve Yönetim/Denetim altında toplandığı, en önemli motive edici faktörlerin ise genel olarak Gelişme, İşin Kendisi ve Özerklik altında gruplandığı görülmüştür.

Bu çalışmanın nihai amacı, yurtdışındaki özel üniversiteler ile organizasyon yapısı olarak büyük benzerlikleri olan Türkiye'deki vakıf üniversitelerinde çalışan akademisyenlerin ve onların önemli bir iş sektörü olan eğitim alanında yönetiminin, günümüzün bilgiye dayalı ekonomisinde, daha verimli ve başarılı olması adına motivasyonlarının ve iş doyumlarının anlaşılmasına katkıda bulunmaktır.

Anahtar Kelimeler: Herzberg'in Çift-Faktör Teorisi, Motivasyon, İş Doyumu, Akademisyenler, Bilgi Çalışanları

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CHAPTER 1

1. INTRODUCTION

1.1 Aim and Scope of the Study

Businesses have always had their challenges. While some challenges would differ depending on the company's sector, era, location, structure, or phases (start-up, growing or maintaining an established business, etc.), some challenges are similar no matter what type of organization it is. To become and stay successful and profitable, there are many tools, theories, and operations developed and practiced for every aspect of a business. An organizational structure with common characteristics can be observed in almost every business to carry out these practices, and this structure does differ or evolve when the need emerges. In this organizational structure, there are multiple departments with specific duties for them to carry out these important aspects of a business as effectively and efficiently as possible. These departments of a business, which include Administration, Production, Customer Service, Sales, Marketing, and Human Resources, must be cared for, mastered, and wisely managed to achieve the aspects previously mentioned.

There is a common point among all these departments: that is, humans are involved to a certain extent. These humans are the employees of a company. Because of this, managing employees is one of the most critical elements in a business for its success, and it demands skillful handling of thoughts, expectations, and emotions to secure the highest productivity. This is where "motivation" which derives from the Latin word "movere", meaning "to move" (Tansky, 2003) comes into play.

Motivation refers to a process that arouses, energizes, directs, and sustains behavior and performance (Luthans, 1998; Muogbo, 2013). So, from this, it can be said that motivation is very important for employee management which is important for business success. Some type of commitment is wanted from our employees to sustain their behavior and performance towards their work and their company.

As O'Malley (2000) states;

“Commitment is critical to organizational performance, but it is not a panacea. In achieving important organizational ends, there are other ingredients that need to be added to the mix. When blended in the right complements, motivation is the result” (p.13).

Maximum effort and productivity is wanted from our employees for maximum success, and because of human nature, it is known that it is needed to motivate employees and that motivation and success will come with the right combination of complements.

One of these employee groups with growing importance in today's business and economy is “knowledge workers”. In the emerging knowledge-based economy and the increasing number and importance of knowledge workers, managing knowledge workers has become more important than ever today. With the changes in the nature of work and the shift in the general structure of employees, previous assumptions about people working in organizations do not seem as justifiable as they were once considered since knowledge workers are “individuals with different aspirations from the hierarchy-conscious personnel of the past” (Serrat, 2010, p.1).

Coined by Drucker (1954), knowledge workers are defined as workers whose main capital is knowledge and whose job is to think for a living (Davenport, 2005). Examples of knowledge workers include engineers, scientists, physicians, lawyers, academics, information technology professionals, physicians, public accountants, and design thinkers.

As the driving and leading centers of knowledge, universities are the core organizations all over the World. The major group of employees at universities are academicians who are considered knowledge workers. That is why the motivation and job satisfaction of academics are quite crucial for the success and sustainability of universities as centers of knowledge and innovation.

The management of knowledge workers including academicians presents unique challenges. Unlike traditional manufacturing or service-based industries,

knowledge workers necessitate a different approach to management. This requires recognizing the intrinsic motivations and autonomous nature of knowledge workers, empowering them to pursue their intellectual endeavors, and fostering an environment that supports their growth and development. Effective management practices that cater to the specific needs of academicians can significantly influence their motivation and overall job satisfaction.

The Two-Factor Theory provides a valuable schema to understand the factors which contribute to employee's motivation and job satisfaction. Frederick Herzberg's seminal work emphasized the distinction between hygiene factors and motivators. Herzberg holds that some hygiene factors, such as salary, work conditions, and organizational policies, are dissatisfiers when absent but do not necessarily lead to long-term satisfaction. In contrast, motivators, such as achievement, recognition, and opportunities for growth, are intrinsic to the work itself and contribute to higher job satisfaction and motivation levels. Also considering that Herzberg developed his Two-Factor Theory in the late 50s and the 60s by studying 203 engineers and accountants, which were also knowledge workers in the Pittsburgh area, makes this theory even more relevant and rational when identifying academicians' motivation and job satisfaction.

By exploring academicians' motivation and job satisfaction through the lens of the Two-Factor Theory, valuable insights can be gained into the unique dynamics of the academic environment. This will enable academic institutions to design effective strategies to increase academicians' motivation and job satisfaction which would lead to improved performance and overall organizational (in this study's case, the foundation universities) success.

This study aims to investigate the factors influencing academicians' motivation and job satisfaction levels and to provide helpful recommendations and insights for the better and more successful management of academicians at foundation universities as economy-based business organizations. By analyzing the applicability of the Two-Factor Theory in the context of academia, the researcher seeks to make a research-based contribution to the already existing knowledge on the subject and provide practical recommendations for fostering a more motivating and satisfying work environment for academicians.

In other words, by examining the unique aspects of their work and the Two-Factor Theory, this research aims to focus on the underlying factors that shape

academicians' motivation and job satisfaction. Ultimately, the findings of this study may be used to guide academic institutions in creating environments that promote the well-being and professional growth of academicians, thereby benefiting individuals, the broader academic community, and organizations in the educational business sector.

This study was conducted to explore the motivation and job satisfaction levels of academicians employed at foundation universities in view of the Two-Factor Theory. It used a survey that is prepared for that purpose. While we focus on exploring and bringing to light what factors affect academicians' motivation and job satisfaction at foundation universities, which are, in essence, business organizations, we humbly hope to provide a guide for the administrators and managers of this type of universities to help them reach great success for their educational organizations.

1.2 Main Research Questions

This study, thus, seeks answers to the questions presented below:

- 1) What are the motivation and hygiene factors that shape academicians' motivation?
- 2) What are the motivation and hygiene factors that shape academicians' job satisfaction?
- 3) Which factors de-motivate academicians when they are not present?
- 4) Which factors inspire academicians to perform better?
- 5) What are the factors that give job satisfaction to academicians at the universities they currently work?
- 6) What are the perceptions of academicians about the order of importance of the factors affecting their workplace motivation?

1.3 Significance of the Study

In today's knowledge-driven society, the role of academicians as knowledge workers has gained significant prominence. As highly educated professionals engaged in teaching, research, and scholarly activities, academicians are critical agents in advancing knowledge and shaping future generations. Academicians are also critically important in cultivating and educating future knowledge workers in any field. Understanding the factors that drive academicians' motivation and contribute to their

job satisfaction is essential for optimizing their performance and fostering a positive work environment.

Academics, as knowledge workers, rely on their expertise, creativity, and intellectual abilities to fulfill their professional responsibilities. Consequently, their motivation and job satisfaction are closely intertwined with the nature of their work and the management practices implemented within academic institutions.

Ultimately, the findings obtained in this study may lend themselves as potential guides for academic institutions to create environments that promote the well-being and professional growth of academics, to improve the management of foundation universities, (which show great similarities in organizational structure to private universities on a global scale), as business organizations, and to contribute to the knowledge-based economy in Türkiye.

CHAPTER 2

2. LITERATURE REVIEW

2.1 Background of Knowledge-Based Economy and Knowledge Workers

Looking at the last 200 to 300 years, a shift can be seen in the base of economies. Throughout this timeline, four major industrial revolutions took place. Before the first industrial revolution, there was a more agrarian-based economy and then a shift to an industrial-based economy can be observed afterwards. While these revolutions created new job opportunities, they also made some previous jobs redundant. A huge accumulation of knowledge was observed with the first revolution which brought mechanized production systems, then the development of electricity in the second revolution, and then the rise of digital technology, automation, and computerization in the third revolution. The era brought advancements in computing, telecommunications, and information technology. While it created new jobs in technology-related fields, it also led to job displacement in traditional industries due to automation and outsourcing. Workers needed to adapt to changing skill requirements and faced the challenge of unemployment or job insecurity. Finally, the ongoing fourth revolution, officially since 2011, has been characterized by the integration of physical, digital, and biological systems, including artificial intelligence, robotics, the Internet, and biotechnology. It carries the potential to reshape industries and transform the nature of work. While it offers opportunities for increased efficiency and innovation, there are concerns about job displacement due to automation and the need for reskilling or upskilling to remain employable.

Overall, the industrial revolutions have brought about significant changes in the workplace, creating new job opportunities, improving productivity, and enhancing living standards in many cases. However, they have also presented challenges, job

displacement, and the need for continuous skills development to keep up with technological advancements.

With this automation and outsourcing for more and more jobs requiring human labor, a shift to a more knowledge-based economy can be observed in general where intellectual capital and information play a crucial role, and where industries, business sectors, and businesses need workers more for their skills of generating, analyzing, and applying knowledge. These workers are individuals who possess expertise, skills, and specialized knowledge in a specific field, and their contributions are often focused on problem-solving, innovation, and decision-making to provide ideas and knowledge, compared to the need for manual labor and physical resources.

Right around the third industrial revolution was taking place, to define the type of workers whose main capital was the knowledge they possessed, Drucker (1959) proposed the concept “knowledge worker” to refer to people who had that quality as was mentioned previously.

The concept of knowledge workers emerged in the mid-20th century, with the work of management thinker Peter Drucker. He highlighted the shift from an industrial economy, where manual labor and physical resources were dominant, to a knowledge-based economy, where intellectual capital and information play a crucial role. Since then, the growth of knowledge workers has been driven by several factors such as technological advancements, globalization, information explosion, shift to service-oriented economies, and emphasis on intellectual capital.

2.2 Management of Knowledge Workers

Drucker, a renowned management consultant and author, introduced the concept in the late 1950s, and in 1999 Drucker emphasized that although knowledge workers were not the only competitive factor in the world economy, they were likely to become a decisive factor in most of the countries for many industries.

Knowledge workers are defined as individuals who acquire, process, analyze, and communicate information or knowledge as part of their job. They are usually employed in organizations and industries that heavily rely on intellectual capital and perform tasks that require advanced skills such as problem-solving, decision-making, and critical thinking. Examples of knowledge workers include professionals in fields such as information technology, research and development, academia (academicians

at universities), management consulting, legal services, healthcare (doctors and researchers), financial analysis, and many others.

Some key characteristics related to knowledge workers involve expertise/specialization, intellectual work, information processing, autonomy and creativity, collaboration and communication, technology utilization, and continuous learning (Davenport et. al, 2002; Davenport, 2005).

Carleton (2011) states that knowledge workers understand the importance of lifelong learning, actively seek new information, and engage in professional development activities to expand their knowledge and skills.

Horwitz et al. (2006) state that “attracting, motivating and retaining knowledge workers have become important in a knowledge-based and tight labor market, where changing knowledge management practices and global convergence of technology has redefined the nature of work. While individualization of employment practices and team-based work may provide personal and organizational flexibilities, aligning HR and organizational strategies for competitive advantage has become more prominent” (p.23). In that study, the researchers intended to identify the most and the least effective strategies to attract, motivate, and retain workers. They found that the most popular strategies were not always the most effective and added that to determine to what extent those practices were propagated, doing cross-cultural research was necessary. They also stated that organizations recognized the fact that knowledge workers were valuable assets and often invested in their training and development to create a conducive work environment to foster their productivity and growth.

Improving knowledge workers’ performance does not mean obligating them to work harder or telling them what to do. It is rather managing knowledge workers to perform better involves removing obstacles to their performance by providing opportunities that contribute to the realization of organizations’ goals. According to Batra (2022), by establishing a framework in terms of culture, structure, and style of management, the talent of knowledge workers can flourish. In other words, knowledge workers usually do not work comfortably with a traditional manager who closely controls and supervises their work. Instead, as stated by Batra (2022), Buckingham & Coffmann (2005) and Carleton (2011), knowledge workers prefer managers who provide the circumstance for them to be productive. For efficient management of knowledge workers, managers should balance management with leadership and coaching, and should not act as a boss. Carleton (2011) states that some highly

suggested ways of motivating and retaining knowledge workers include a supportive work environment, access to resources, work that is meaningful and challenging, recognition of success, and opportunities for learning and career development.

Previous studies focused on how to motivate knowledge workers for better management. For example, Mladkova, Zouharova & Novy (2015) stated that knowledge was the major tool and resource of knowledge workers who formed a growing group of professionals in advanced and emerging economies. The study by Mladkova et al. (2015) stated that four categories of factors motivated knowledge workers; they were the character of work, freedom, satisfaction, and achievement of objectives. They also identified the low moral qualities of managers and inefficient use of knowledge worker energy as two factors that caused demotivation in knowledge workers.

Another study by Olomolaiye & Egbu (2004) point to the significance of factors that contribute to motivating and demotivating knowledge workers which are pay, praise, promotion, and punishment. Frick (2010) studied knowledge workers from multiple sectors and found positive and negative factors that motivate them. The positive factors that Frick identified include “meaningful work, belief in the mission, public service, the opportunity to advance, relationship with coworkers and supervisor, personal work ethics, education benefits, great people, flexible workplace policy, empowerment, organizational values, teamwork, supportive management, recognition by others, total compensation, equitable awards, and job security” (p.381). Negative factors that Frick (2010) identified in his work include “insufficient resources, bad managers, lack of management support, difficult commute, ineffective technology, lack of planning, abusive supervisors, lack of teamwork, lack of promotion opportunities, corruption in the workplace, management resistance to change, and negative organizational culture” (p.382).

Zhan et al. (2013) conducted a meta-analysis comparing the incentive factors of knowledge workers in China and other countries. They suggested future studies that consider the unique characteristics of cultures to identify incentive preferences because their study reveals that the incentive factors may change for knowledge workers in different countries. Another study on the motivation strategies for knowledge workers comes from Petronio & Colanico (2008), who offered motivation strategies for knowledge workers that managers should take into consideration. The strategies they proposed were continuing their education, reward systems, economic incentives,

positive reinforcement, taking sabbatical leaves, retraining, job transfers, rotation programs, achievement, contribution, open communication, and developing knowledge workers' decision-making skills.

Previous studies conducted in Türkiye reveal some important points concerning the management of knowledge workers. For example, the research by Akgün & Yaman (2020) focused on evaluating the potential of engineers and architects who functioned as knowledge workers in the construction sector in Türkiye. Based on their findings, they stated that when knowledge workers were selected and placed correctly as valuable employees, human resources would be managed better. Their results showed that architects had a higher chance of being recognized as knowledge workers than engineers. The most motivating factor for those knowledge workers was the quality of the results they achieved. Other motivating factors were "the quality of their interaction with colleagues and managers, and independence while working on a task".

Mete & Belgin (2022) investigated the effect of knowledge management performance on the efficient functioning of parts and accessories manufacturing firms for motor vehicles in Türkiye. They found significant differences between firms in the areas of creating knowledge, the productivity of knowledge workers, the infrastructure of information systems, and knowledge culture. Bozbura (2007) examined the perceptions of senior managers on to what extent knowledge management components contributed to the success of small and medium enterprises (SMEs) in Türkiye. The results showed that Turkish SMEs did share even knowledge within their companies and that managers had the fear of losing their control over knowledge. The study is important in the sense that it provides a basis for research on knowledge management practices in SMEs in developing countries.

Similarly, Kör & Maden (2013) underlined the fact that organizations needed to generate, modify, and manage knowledge to sustain innovation capabilities. They examined the interrelationship in organizations between effective processes of knowledge management and types of innovation. Their results showed that knowledge management processes were related to innovativeness positively and, that, in turn, increased innovation in companies. İpçioğlu & Çelik (2008) examined the importance of knowledge management for companies. They explored Turkish SMEs' perceptions of knowledge management and the challenges they faced. Their findings showed that Turkish SMEs understood knowledge was important in business performance, but that,

a great number of SMEs in Türkiye did not have knowledge management programs or had not yet built the infrastructure necessary for the systematic and effective management of knowledge. Erdil & Erbüyük (2020) pointed to the importance of knowledge management from Türkiye's point of view. They stated that if Türkiye comprehended the importance of knowledge management at its early development stages and strived to implement it effectively, the country might have gained a forefront position in this regard in the World because of its huge young population and intellectual capital.

2.3 Academicians as Knowledge Workers

Academicians are categorized as knowledge workers. Like other knowledge workers, they possess specialized knowledge, skills, and advanced educational backgrounds, and primarily engage in cognitive tasks rather than manual labor. They often have a certain level of autonomy and independence in their work. Academicians are constantly challenged to stay current regarding the latest trends in their professions, which can be intellectually stimulating and motivating. Engaging in conferences, workshops, and professional development activities enhances their knowledge and skills, which may lead to satisfaction in their jobs at universities.

Recognition and reputation in academia are important for many academicians. Recognition for their research contributions, publication of scholarly work, and invitations to speak at conferences or collaborations with other experts are sources of validation and job satisfaction. Esteem and respect from colleagues and the wider academic community can be highly rewarding for them (Machado-Taylor et al., 2010; Stankovska et al., 2017; Toker, 2011).

2.4 Academicians' Motivation and Job Satisfaction

Motivation functions as the guiding factor for human behavior. It guides individuals with high levels of commitment to their work and intensive focus. As motivated employees are more productive, motivation acts as the underlying factor in increasing employee profitability. There have been increasingly important studies on the motivation and job satisfaction of academicians as knowledge workers, which can be used by managers and university administrators to improve motivation among academic employees. Naveena (2019) did a thorough review of relevant literature on the job satisfaction of academicians working for higher education institutions and

concluded that healthy administrator-faculty relationships, job security, work environment, salary, promotion, feedback from students, support from peer groups, and work-life balance were important factors for academicians. Another study conducted by Moloantoa & Dorasamy (2017) focused on the factors that affected academicians at higher education institutions in Ukraine. Their findings showed that for Ukrainian academicians salary was a significant factor in determining the level of job satisfaction. They declared that inadequate financial support to enable academicians to do research and teaching, unsatisfactory benefits and allowances, equipment shortages, and meager management of the institutions were the main factors that caused demotivation.

Stanskovska et al. (2017), in their study on job satisfaction and motivation of academicians in Macedonia, reported salary, promotion, supervision, operating procedures, and relationships with co-workers as the main factors that affected job satisfaction. They added that unsatisfactory benefits and rewards, the nature of work, and communication were factors that affected academicians' motivation negatively.

Studies on job satisfaction and motivation levels of Turkish academicians were investigated in several studies. Baş & Ardiç (2002) compared the job satisfaction levels of academicians working for public and state universities in Türkiye. They found that the main differences were the work environment, the behavior of administrators, the behavior of co-workers, teaching, research, the job, and salary. They concluded that the job satisfaction levels of academicians working at private universities were higher than the academicians at public universities in many respects. Toker (2011) explored the effect of demographic variables on the level of job satisfaction in Turkish academicians and saw that the academicians' job satisfaction levels were high moderately and that the academicians ranked social status (i.e. academic titles) the highest. Age and length of service also affected their job satisfaction level. On the other hand, variables such as gender or marital status were not considered to be significantly related to job satisfaction. Yoleri & Bostancı (2012) investigated job satisfaction and burnout in academicians in a Turkish state university and observed that job satisfaction and burnout did not vary with age, marital status, and teaching load. They found out that academicians' job satisfaction was inversely correlated with emotional exhaustion.

The findings of these studies imply how important it is to understand the factors that affect motivation and job satisfaction of academicians. They also show the important role of managers in providing conducive work environments and conditions to increase the motivation and job satisfaction levels of academicians. There, still, remains a great need to conduct culture-specific research and to focus on academicians working at various higher education institutions, including private universities.

2.5 Motivation Theories

Motivation theories are put forward to account for people's behaviors and the factors that guide their actions, goals, and desires. Several theories of motivation have emerged as important over time. Those motivation theories that have received recognition may be categorized under two major headings as "content theories" and "process theories".

Content theories aim to identify the factors that create motivation in humans and seek to understand the internal factors that push individuals to fulfill their needs and achieve certain goals. Process theories investigate the cognitive and decision-making processes involved in creating motivation in individuals, and try to explain how people make choices, set goals, and evaluate outcomes to drive their motivation (Frick, 2010). In other words, content theories focus on the question "What motivates?" and examine people's needs in their lives. Process theories focus on the question "How does it motivate?" and investigate the psychological and behavioral processes that affect individuals' motivation (Sanjeev & Surya, 2008).

2.5.1 Content Theories of Motivation

The prominent motivation theories that focus on content are the Hierarchy of Need Theory by Maslow (1954), the Two-Factor Theory by Herzberg (1959), the Theory X and Theory Y by McGregor (1960), Acquired Needs Theory by McClelland (1961), and the Existence, Relatedness, Growth (ERG) Theory by Alderfer (1969).

The Hierarchy of Needs theory by Maslow holds that a hierarchy of needs motivates people. The needs are arranged in a pyramid. Basic physiological needs that include food, water, and shelter are at the bottom of the pyramid. Safety needs, social needs, esteem needs, and self-actualization follow basic physiological needs respectively. Maslow maintains that individuals fulfill their needs in this sequence.

The Two-Factor Theory by Herzberg states that job satisfaction and dissatisfaction are influenced by different factors. Of those, hygiene factors are associated with dissatisfaction when they are absent. However, their presence does not ensure satisfaction necessarily. Examples of hygiene factors are salary, working conditions, and company policies. The second factor is motivators which contribute directly to job satisfaction and motivation. Recognition, growth opportunities, and achievement are examples of this kind.

Theory X and Theory Y by McGregor present an opposing model of managerial approaches. According to this theory, managers form two different sets of assumptions regarding employees. Theory X holds that managers are work- and job-centered. In this theory, managers are assumed to believe that an average human being wants security, works under control, has little ambition, cannot be trusted, prefers to be directed, and dislikes work and responsibility. Theory Y, on the other hand, is more employee-centered and has a more favorable view of employees. In this theory, employees are believed to have the potential to be creative and productive. Accordingly, management is expected to be able to use these potential aspects of employees. To provide the best solution for effective management in real life, Ouchi (1981) developed Theory Z which is essentially a combination of these two theories.

Acquired Needs Theory (Three Needs Theory) by McClelland argues that three primary needs direct human behavior. These are achievement, affiliation, and power. McClelland holds that all individuals have these needs even though their degrees vary. Of these needs, the dominant one influences people's motivation and behaviors. For example, people who have a high need for achievement are guided by the desire to excel and accomplish challenging tasks. Individuals who feel a high need for affiliation look for social connections and harmonious relationships, while those with a high need for power are motivated by the desire to control and influence others.

The ERG Theory by Alderfer is an alternative to Maslow's theory. This theory classifies people's needs into three categories. They are existence needs, relatedness needs, and growth needs. Existence needs are similar to physiological and safety needs in Maslow. Relatedness needs are similar to Maslow's social needs. Growth needs are the combination of esteem and self-actualization needs. Unlike Maslow, the ERG theory recognizes the simultaneous active presence of multiple needs and declares that frustration individuals experience in satisfying a higher-level need may lead them to focus on fulfilling a lower-level need.

To sum up, content theories provide frameworks for understanding the underlying needs and desires that motivate individuals. However, it is important to note that individual motivations can vary, and other factors, such as personal experiences, cultural influences, and situational contexts, can also affect motivation. Additionally, contemporary theories often incorporate elements from multiple theories to provide a more comprehensive understanding of motivation.

2.5.2 Process Theories of Motivation

Major process theories of motivation are the Equity Theory by Adams (1963), the Expectancy Theory by Vroom (1964), the Goal Setting Theory by Locke (1968), and The Social Cognitive Theory (SCT) by Bandura (1986).

The Equity Theory posits that individuals become motivated when they perceive fairness in the exchange of input and outcome in comparison with others. According to this theory, individuals compare their input-outcome ratio with the input-outcome ratio of relevant others. If they perceive an imbalance in this ratio (underpayment or overpayment), it can lead to feelings of inequity and can negatively impact motivation. Individuals strive to restore equity by adjusting their inputs (effort) or outcomes (rewards) to achieve a sense of fairness.

The Expectancy Theory claims that motivation is influenced by people's belief in the relationship that exists among effort, performance, and outcomes. The theory consists of three components: they are expectancy which may be explained as the belief that effort will result in performance, instrumentality which refers to the belief that performance will lead to desired outcomes, and valence which is the value placed on expected outcomes. The theory argues that people are motivated to act in ways when they are convinced that those ways will lead to accomplishing desired outcomes. In other words, $\text{Motivation} = \text{Valence} \times \text{Expectancy}$. This theory presents a detailed view of the process of motivation.

The Goal-Setting Theory underscores the view that setting specific and challenging goals increases people's motivation and performance. In this theory, clear goals accepted and pursued by individuals drive their efforts, direct their attention and action, and increase their persistence. Feedback on goal progress is also considered crucial for motivation.

Bandura's SCT Theory focuses on the interplay between personal factors, environmental factors, and behavior. It suggests that individuals' motivation and

behavior are influenced by observational learning, self-efficacy beliefs which refer to the belief in one's ability to succeed, and outcome expectations which may be defined as the anticipated outcomes of behavior. SCT emphasizes the importance of self-regulation, goal setting, and the role of self-efficacy in motivation.

Process theories highlight the cognitive processes and decision-making factors that influence motivation, and provide insights into how individuals evaluate their efforts, set goals, and assess the fairness of outcomes. These theories suggest that motivation is not solely driven by external factors but is also influenced by individuals' perceptions, beliefs, and expectations.

2.6 Herzberg's Two-Factor Theory

The Two-Factor Theory (Herzberg, 1954; Herzberg et al. 1959) is one of the content theories of motivation. It assumes that motivation can be classified into two sets of factors as hygiene and motivator factors. They are often referred to as the 'two need system'. The first one of those needs is hygiene factors, such as salary, working conditions and company policies, decrease job satisfaction. The second one is motivators, such as achievement, recognition and growth possibilities, guide workers to be more productive. These two separate 'needs' avoid unpleasantness and discomfort. At the other end of the motivational scale, there is the need for personal development. When motivating factors that positively encourage employees are scarce, the result is employees' focusing on non-job related 'hygiene' factors.

In other words, as Malik & Naeem (2013) state, "Herzberg theorized that provision of motivators such as recognition, work itself, advancement, responsibility, and achievement generates job satisfaction while their absence leads to no job satisfaction but has nothing to do with job dissatisfaction. On the other hand, lack of hygiene factors such as working conditions, pay, interpersonal relations, job security, company policies, and administration produces job dissatisfaction and has nothing to do with job satisfaction" (p.1031).

The theory can be summarized in Figure 2.1 below (Nickerson, 2023).

2.6.1 Motivator Factors

- Achievement
- Recognition
- Work Itself
- Responsibility
- Promotion
- Growth, etc.

2.6.2 Hygiene Factors

- Pay and Benefits
- Company Policy and Administration
- Relationships with co-workers
- Supervision
- Status
- Job Security
- Working Conditions
- Personal life, etc.

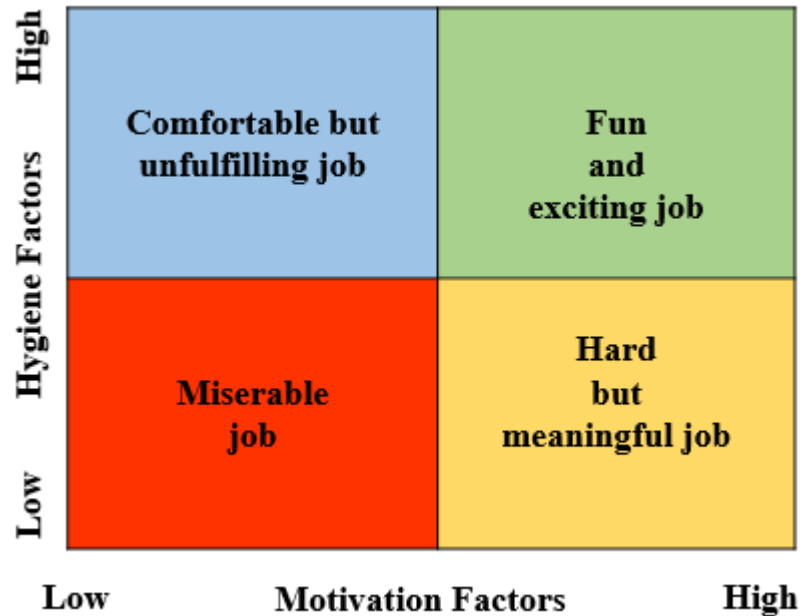


Figure 2.1 Job Satisfaction and Dissatisfaction Depending on the Presence of Hygiene and Motivator Factors of the Two-Factor Theory

This theory states that the main motivating factors are the intrinsic value and satisfaction that employees gain from the job. Therefore, a job must be challenging, allow enrichment, and interest jobholders to motivate individuals. Motivators are factors related directly to the satisfaction gained from a job such as achievement, recognition by colleagues and management, level of responsibility, and opportunities for advancement. Motivators are sometimes referred to as ‘satisfiers’. Motivators are important in job satisfaction.

The absence of motivators may cause over-concentration on hygiene factors, which are the factors that form the basis of complaint and concern when absent.

Hygiene factors, which are often referred to as maintenance factors, lead to dissatisfaction with a job because of the need to avoid unpleasantness. They are referred to as hygiene factors because they can be avoided or prevented by the use of ‘hygienic’ methods. The important fact to remember is that attention to these hygiene factors prevents dissatisfaction but does not necessarily provide positive motivation. Hygiene factors are also often referred to as ‘dissatisfiers’ as seen in Figure 2.2 below (Young, 2023).

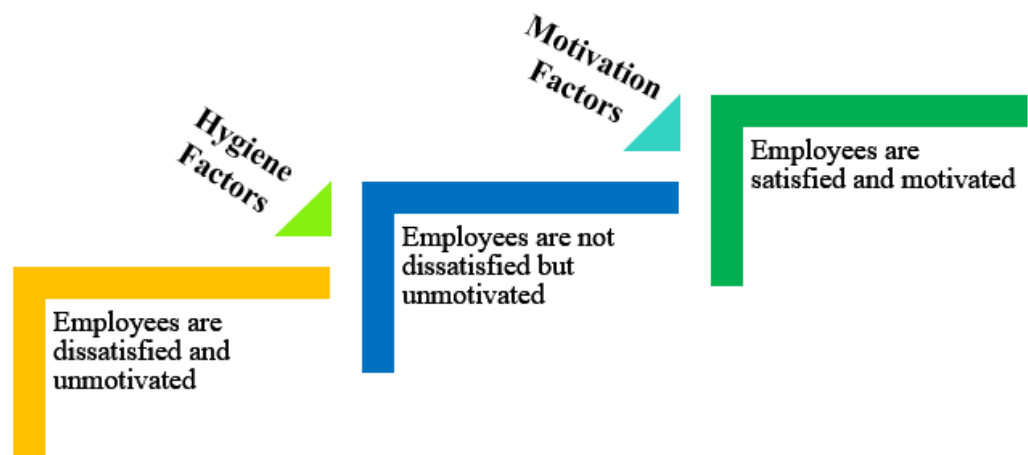


Figure 2.2 Hygiene Factors, Motivator Factors, and Their Relationships with Job Satisfaction

Herzberg's theory states that intrinsic satisfaction can be obtained from the work itself. The theory helps managers to become aware of the fact that motivation problems may not necessarily be related to work. They may be external as well. In other words, when managers understand that factors that cause demotivation in employees may also and often be related to matters other than work, they may begin to improve employee motivation, job satisfaction, and overall organizational performance in their organizations. This theory directs managers' attention to the fact that improving skills, opportunities, and increasing employee knowledge increase an organization's human assets value and this leads to greater commitment and loyalty.

Support for Herzberg's theory comes from various studies that tested his propositions (Filtvedt 2016; Jones & Lloyd, 2005; Jowett, 2008; Manolopoulos, 2008; Sarjeev & Surya, 2016; Yusoff et al. 2013). The findings of these studies confirmed the existence of its two-factor (motivation – satisfaction) structure. It was observed that satisfaction occurred when motivating factors were present and that hygiene factors did not have any influence on satisfaction levels.

The Two-Factor Theory has critics as well: although the theory has been tested in different cultures, samples, and occupations using different methods, no mutually agreed upon consensus on to what extent Herzberg's theoretical predictions are valid has been reached yet (Malik & Naeem, 2013; Sarjeev & Surya, 2016). For example, Locke (1976) criticized the theory and indicated that there were different sources of job satisfaction and dissatisfaction. According to Locke, this theory is parallel to the

dual theory of man's physical needs. Locke also criticized the classification system used in this theory as being inconsistent. In addition, some previous studies (Spillane, 1973; Mottaz, 1985) produced results that sharply contrasted with Herzberg's proposition that intrinsic job factors contributed to job satisfaction only and had nothing to do with job dissatisfaction.

Despite criticisms, the theory has received wide acceptance and continues to be a topic of great interest to concerned professionals such as managers and psychologists. When the theory is accepted to be valid, leaders of organizations are advised to determine the variables that cause satisfaction or dissatisfaction in employees and initiate programs that would lead to job satisfaction which, in turn, may result in motivating employees for increased productivity. However, the mixed results observed in the previous studies so far urge researchers in diverse organizations and cultures to test Herzberg's propositions in their contexts. Therefore, this study aims to test the validity and relevance of Herzberg's Two-Factor Theory for academicians at foundation universities in Türkiye for more effective management and organizational success.

CHAPTER 3

3. METHODOLOGY

This section provides a detailed overview of the methodology used to conduct this research study. It will start with the research design chosen for this study. The research method that was employed will follow that. The chapter will continue by giving information about the participants, the data collection instrument used, data collection procedure, and data analysis phases of the study.

3.1 Research Design: A Descriptive Research

Research design refers to the overall structure selected by researcher to be used from the beginning to the end of a study. It is the overall plan to conduct a research study in a coherent and logical manner during the data collection, analysis, and discussion of the data to answer the research questions formulated at the beginning of a study. Dulock (1993) explains that “research designs are generally categorized into one of four groups depending on the purpose of the research: descriptive, correlational, quasiexperimental or experimental” (p.154). Descriptive research is also known as an exploratory research method. Dulock (1993) goes on to explain the five purposes of descriptive research two of which will be given here as relevant which are describing facts and characteristics of a group accurately and describing the characteristics of persons, situations, or groups and the frequency with which certain phenomena occur. Dulock also mentions that in descriptive research design, variables are not manipulated nor controlled (p.155).

In the light of the information presented above, the research design of this study is, thus, *descriptive* by nature as it aims to discover both the motivation and hygiene factors that determine motivation and job satisfaction levels of academicians employed

at foundation universities in Türkiye and the order of the factors affecting academicians' motivation using the framework of the Two-Factor Theory. These are issues that deserve more in-depth investigation in the Turkish context to have a better understanding of the current situation.

3.2 Research Model: Embedded Mixed-Methods Design

Following the determination of the research design, the next step would be about selecting the research model to be used in this descriptive study. Creswell (2014) classifies research models into three as quantitative, qualitative, and mixed-methods research models. Of those, the mixed methods model was used in this study because both quantitative and qualitative data were collected during the data collection process.

Mixed methods research combines elements of quantitative data and qualitative data in order to answer the research questions. Mixed methods can help researchers gain a more complete picture than a standalone quantitative or qualitative study, as it integrates benefits of both methods (Halcomb & Hickman, 2015). By integrating these two types of data, researchers can potentially have a more robust and insightful understanding of the topic.

In this study, the Embedded Mixed Method Research Design was used where quantitative data was the primary data and qualitative data, which was obtained through the responses for an open-ended question at the end of the survey, was the secondary data. In Embedded mixed methods designs, one data set provides a supportive, secondary role in a study (Creswell, Plano Clark, et al., 2003). In an embedded design, one method is nested within the other, meaning that one method takes a secondary or supportive role in relation to the other.

In accordance with the description, two types of data, namely, quantitative and qualitative data were collected from the participants in this descriptive research study. The data were collected through Google Forms as will be elaborated in the section on the data collection instrument.

3.3 Research Method: The Survey Method

Quantitative research methods are well suited to understanding the factors or variables that affect an outcome and how they do have an effect on it. These methods may be used to describe trends and explain relationships between variables as well. With quantitative research methods, data are collected objectively and systematically.

Another reason for the use of a quantitative research method stems from the nature of the Two-Factor Theory which allows for the use of the quantitative research approach (Herzberg et al. 1959; Herzberg, 1966).

In this study, the survey method, a quantitative research method, was used for data collection. A quantitative survey tool, namely, a questionnaire, was used to collect data in this study. Questionnaires are used as data collection instruments in quantitative studies because they allow the collection of data directly from the people involved with the help of a series of questions created in a certain order. They are one of the most used data collection tools as they enable researchers to collect information about a particular phenomenon by formulating questions that reflect the views, perceptions, and behaviors of a target group of individuals.

Questionnaires offer certain advantages. Data are collected from the target population quickly and lend themselves to be quantified easily to give researchers an idea as to the dimensions of the problem investigated. High representativeness of the whole population and low cost compared to other alternatives are the most important advantages of the method. On the other hand, the reliability of the survey data largely depends on the survey structure and the accuracy of the answers given by the respondents because it collects self-reported data from the participants (Queirós et al., 2017).

Questionnaires also allow researchers to ask open-ended questions to the participants to elaborate on their answers. This kind of data is *qualitative*. Qualitative data help researchers understand the problems in further detail than the given choices participants selected as answers because participants use language, not choices, to express their opinions with no constraints. In other words, even though questionnaires are in essence classified as quantitative, their very nature allows researchers to collect qualitative data as well through open-ended questions, as was the case in this study.

3.4 Participants

As of 2023, there are 208 universities in Türkiye; 129 of them are public and 75 of them are foundation universities according to the YÖK (Council of Higher Education) website. In addition, there are 4 self-governing foundation vocational schools. As reported at YÖK website, the total number of academicians working at Turkish universities is 184.703; with the exact number being, 154.909 academicians

at public universities, 29.544 academicians at foundation universities and 250 academicians at the foundation vocational schools.

The participants in this study were 64 academicians working at foundation universities in Türkiye. Information about the sample group of the study was collected with a sociodemographic data form, which was incorporated into the questionnaire. The form included questions about the participants' gender, age, highest education degree, academic titles, and years of service at the foundation university they were working for at the time of data collection. The survey was sent to 189 academicians; 64 of them filled out the questionnaire and 14 answered the optional open-ended question. Table 3.1 below presents the demographic profiles of the participants.

Table 3.1 Demographic Profiles of the Participants

	N=64
Gender N (%)	
Female	37 (57,8)
Male	27 (42,2)
Education level N (%)	
Bachelor's degree	5 (7,8)
Master's degree	29 (45,3)
PhD	30 (46,9)
Age N (%)	
21-30	27 (42,2)
31-40	26 (40,6)
41-50	5 (7,8)
51 and over	6 (9,4)
Academic title N (%)	
Research Assistant	23 (35,9)
Lecturer	18 (28,1)
Assistant Professor	14 (21,9)
Associate Professor	5 (7,8)
Professor	4 (6,3)
Work experience N (%)	
0-5 years	45 (70,3)
6-15 years	15 (23,4)
16-25 years	3 (4,7)
25 years and over	1 (1,6)

3.5 Data Collection Instrument

A questionnaire, developed by Fildvedt (2016), based on the Two-Factor Theory, was used to determine the factors affecting the motivation and job satisfaction of the academicians who participated in this study. The questionnaire was developed to determine the motivation and hygiene factors that affect the job satisfaction of knowledge workers. The data collected to capture academicians' motivation and job satisfaction were collected using the questionnaire at a single time from the participants. Creswell & Creswell (2022) refer to questionnaires like the one used in this study as “cross-sectional—with the data collected at one point in time—“ (p.144).

The questionnaire was first translated into Turkish by three different language experts to ensure reliability. Its cultural adaptation was carried out and then the questions were transferred to the Internet via Google Forms. During data collection, no question that would reveal the identity of the participants was asked to protect their identities and data were collected anonymously.

Internet-based surveys are the most popular type of online electronic surveys. The survey instrument - the questionnaire - is stored on an internet server and participants access it via their computers, mobile phones, and tablets (Jansen, et al., 2007). In this method, the respondents can finalize the form and submit it. Data are automatically recorded. The use of internet-based surveys has become widespread as they reach large audiences compared to printed surveys quickly and in a cost-effective way which was not possible in traditional questionnaires (Couper, 2000). However, in internet-based surveys, there is the possibility that the invitation may not reach participants. Even if the invitation reaches participants, the invitation may not be accepted. People are more likely to refuse to participate in the survey because they are not face-to-face with a researcher. This decreases the response rate (Scott et al., 2011).

The sociodemographic form mentioned previously in this chapter formed the first part of the questionnaire to collect data on participants' gender, age, education level, and academic title, and years of service in their current universities.

After the first part, questions about motivation and hygiene factors followed. That part was compiled from the Two-Factor Theory by slightly adapting the questions in accordance with the nature of the work of academicians. In other words, the questions tested the degree of importance of the factors affecting workplace motivation and job satisfaction, which factors reduce the motivation of academicians in their

absence, and which factors enable them to perform better. Most of the questions were designed using a 5-point Likert scale, while one of the questions was designed using a 4-point Likert scale. For the question testing the order of importance of the factors, it was appropriate to use a ranking scale with 12 statements. In the last section, there was an open-ended question for the participants to add any ideas if they would like to share.

3.6 Data Collection Procedure

The questionnaire was sent to the academicians at various foundation universities via Google Forms in May 2023. In the research, to reach the sample that had the power to represent the target group, convenience sampling method was used. Convenience sampling is a nonprobability sampling method in which respondents are chosen based on their convenience and availability (Creswell & Creswell, 2022).

Convenience sampling, also known as convenient sampling or availability sampling, is often used because the researcher selects individuals who are easily accessible or readily available to participate in a study. While convenient sampling has some disadvantages, it also has several advantages. As disadvantages, lack of randomness, limited external validity and subjectivity can be mentioned in addition to the sampling bias, which may limit the generalizability of the findings to the larger population. The advantages of convenience sampling include ease of data collection, cost-effectiveness and readily available sample (Stratton, 2021; Etikan et al. 2016). Convenience sampling allows researchers to generate large samples in short time periods.

3.7 Data Analysis Procedure

Statistical Package for Social Sciences (SPSS) version 22.0 (SPSS Inc., Chicago, IL, USA) statistical software was used for data analysis. Descriptive statistical analyses were performed and the results were reported by calculating Number (N), percentage, mean and standard deviation values for categorical variables to summarize and describe the main features of the collected data. For better understanding, the statistical analyses were also visually summarized using bar charts to show the mean values of each factor for every question. The qualitative data obtained through the open-ended question were analyzed using content analysis procedure (Creswell & Creswell, 2022).

CHAPTER 4

4. FINDINGS

This chapter will present the findings of the study. The results of the data analysis will be presented in sections in relation to each of the six research questions. The presentation order of the data analysis for the first 6 research questions will be hygiene factors first, followed by motivator factors using tables. There will be 2 tables that tabulate the results for each of the 6 research questions. These tables will be visually supported by bar charts for the first 5 research questions and pie charts for the sixth research question. Thus, for the six research questions, a total of 12 tables – 1 that reports the frequency of responses and 1 that shows the means and standard deviations – will be used for the analysis of the given factors.

The factors will be listed in order of importance respectively for each question. For each research question, the hygiene and motivator factors will follow each other as groups and will be presented together with the frequency of responses tables given first and the means and standard deviation tables second. The frequency tables will be arrayed from the factor chosen by the most number of participants and the highest percentage of participants to the lowest number of participants and the lowest percentage of participants. The means and standard deviation tables will be presented in the order from the highest mean with the lowest standard deviation to the lowest mean with the highest standard deviation respectively.

For the open-ended question, 6 themes that emerged in the content analysis of the data will be presented in the order of the most commonly stated theme to the least commonly stated one.

4.1 The Motivation and Hygiene Factors Shaping Academicians' Motivation

Question 1: What are the motivation and hygiene factors that shape academicians' motivation? This research question was asked to find out how these two sets of factors affected academicians' motivation. The academicians were asked to rank each factor on a five-point Likert scale between "Very Important" to "Completely Unimportant". After the descriptive statistical analysis was conducted, the results for this research question are reported for each factor, in the form of numbers and percentages of participant academicians in Table 4.1 below. The participating academicians were not aware of which questions were asked to capture their opinions on motivation or hygiene factors as the questions were not asked in an order of factors.

Table 4.1 Frequency of the Results for the Hygiene and Motivator Factors Affecting Academicians' Motivation

Importance of factors for academicians' workplace motivation: n (%)	Completely unimportant	Relatively unimportant	Do not apply	Relatively important	Very important
Achievement in job	0 (0)	1 (1,6)	0 (0)	26 (40,6)	37 (57,8)
Recognition	0 (0)	0 (0)	4 (6,3)	44 (68,8)	16 (25)
The work itself	0 (0)	0 (0)	3 (4,7)	34 (53,1)	27 (42,2)
Areas of responsibility	0 (0)	0 (0)	2 (3,1)	29 (45,3)	33 (51,6)
Advancement	0 (0)	0 (0)	2 (3,1)	33 (51,6)	29 (45,3)
Possibility for professional growth	0 (0)	0 (0)	2 (3,1)	25 (39,1)	37 (57,8)
Status	0 (0)	2 (3,1)	14 (21,9)	35 (54,7)	13 (20,3)
Contributing to research and development	0 (0)	1 (1,6)	4 (6,3)	23 (35,9)	36 (56,3)
Developing new applications and techniques	0 (0)	2 (3,1)	5 (7,8)	27 (42,2)	30 (46,9)
Individual research	0 (0)	0 (0)	4 (6,3)	24 (37,5)	36 (56,3)
Working towards a better future	0 (0)	0 (0)	3 (4,7)	22 (34,4)	39 (60,9)
Salary and benefits	0 (0)	0 (0)	0 (0)	23 (35,9)	41 (64,1)
Student quality	0 (0)	0 (0)	7 (10,9)	27 (42,2)	30 (46,9)
Freedom during workday	0 (0)	0 (0)	7 (10,9)	20 (31,3)	37 (57,8)
Creating results	0 (0)	0 (0)	0 (0)	27 (42,2)	37 (57,8)
Knowledge of co-workers	0 (0)	0 (0)	9 (14,1)	39 (60,9)	16 (25)
Autonomy	0 (0)	0 (0)	7 (10,9)	20 (31,3)	37 (57,8)

The means and standard deviations of the results for research question 1 are presented in Table 4.2 in terms of hygiene and motivator factors in the Two-Factor theory.

Table 4.2 Means and Standard Deviations of Hygiene and Motivator Factors Affecting Academicians' Motivation

Factors the most important for academicians' workplace motivation	Mean±SD
Hygiene Factors	
Salary and benefits	4,64 ± 0,48
Freedom during workday	4,47 ± 0,68
Student quality	4,36 ± 0,67
Status	3,92 ± 0,74
Motivator Factors	
Creating results	4,58 ± 0,49
Working towards a better future	4,56 ± 0,58
Possibility for professional growth	4,55 ± 0,56
Achievement in job	4,55 ± 0,58
Individual research	4,50 ± 0,61
Areas of responsibility	4,48 ± 0,56
Contributing to research and development	4,47 ± 0,68
Autonomy	4,47 ± 0,68
Advancement	4,42 ± 0,55
The work itself	4,37 ± 0,57
Developing new applications and techniques	4,33 ± 0,75
Recognition	4,19 ± 0,53
Knowledge of co-workers	4,11 ± 0,62

For Research Question 1, the hygiene and motivator factors are also displayed in bar charts below, in the order of importance according to the mean and standard deviation values of the responses given by the participant academicians investigated in the study.

4.1.1 Hygiene Factors

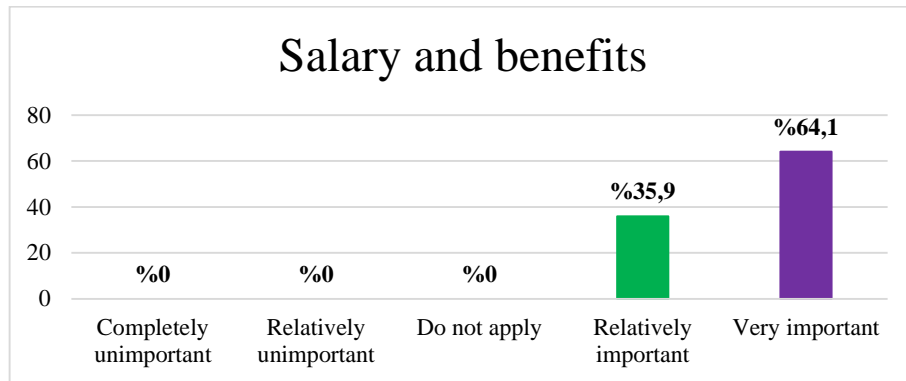


Figure 4.1 Frequency of Responses for Salary and Benefits

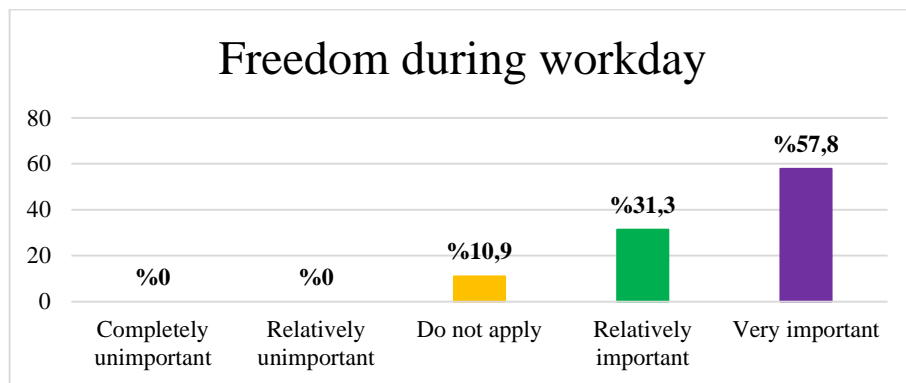


Figure 4.2 Frequency of Responses for Freedom during Workday

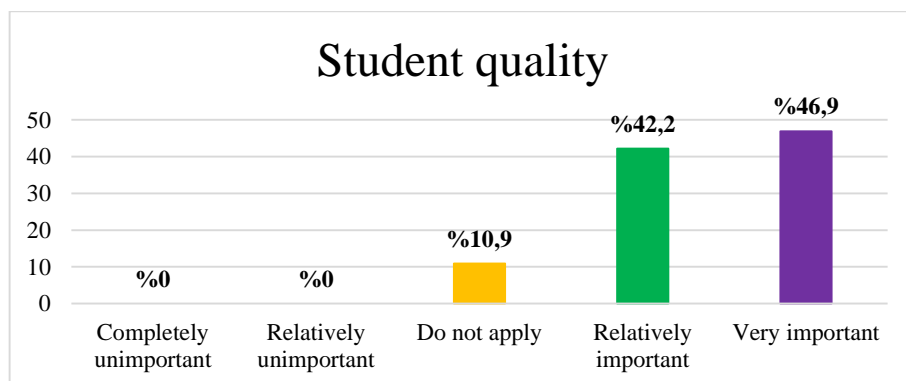


Figure 4.3 Frequency of Responses for Student Quality

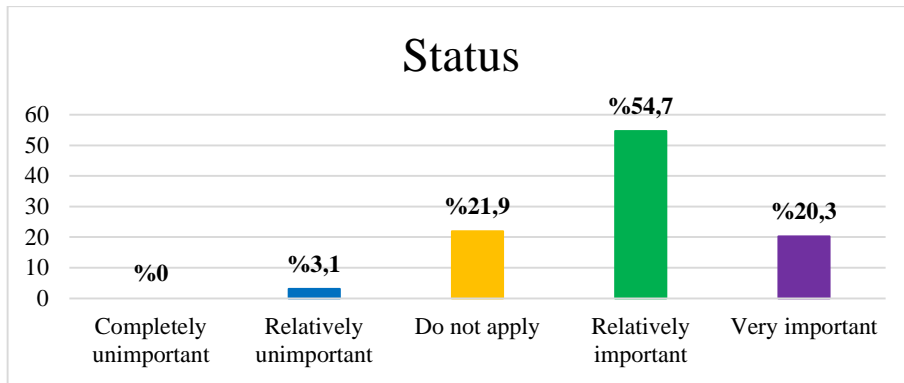


Figure 4.4 Frequency of Responses for Status

4.1.2 Motivator Factors

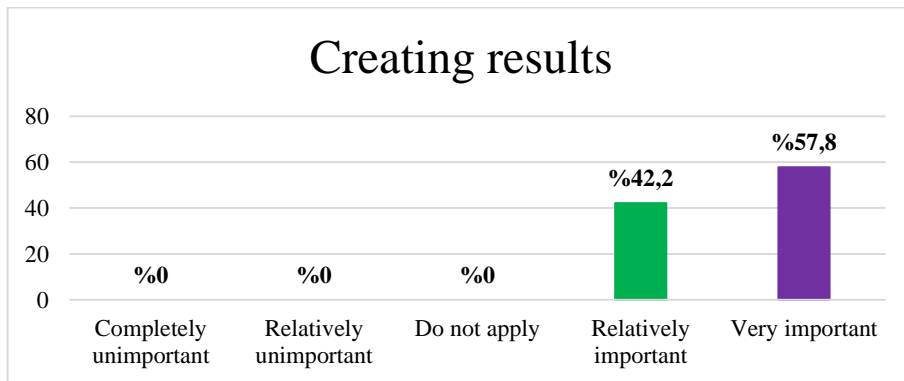


Figure 4.5 Frequency of Responses for Creating Results

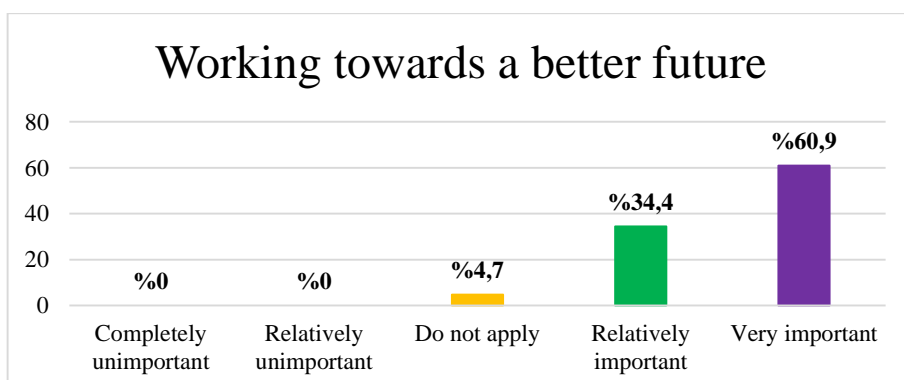


Figure 4.6 Frequency of Responses for Working Towards a Better Future

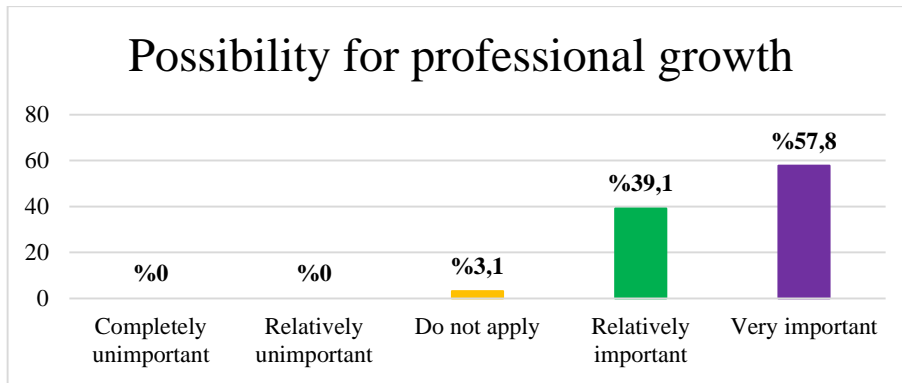


Figure 4.7 Frequency of Responses for Possibility for Professional Growth

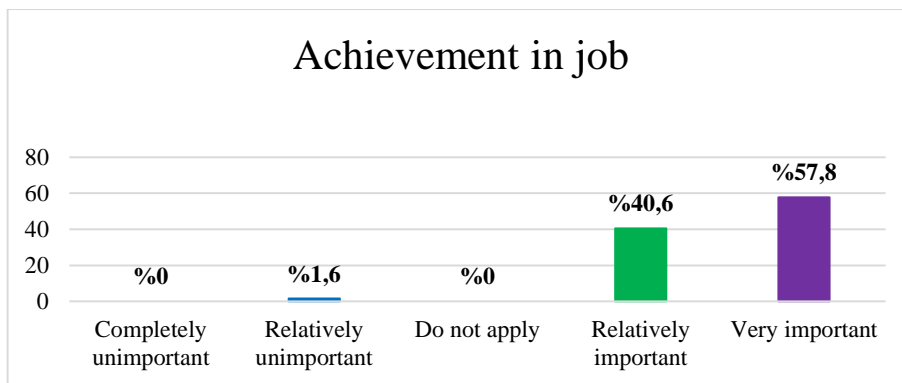


Figure 4.8 Frequency of Responses for Achievement in Job

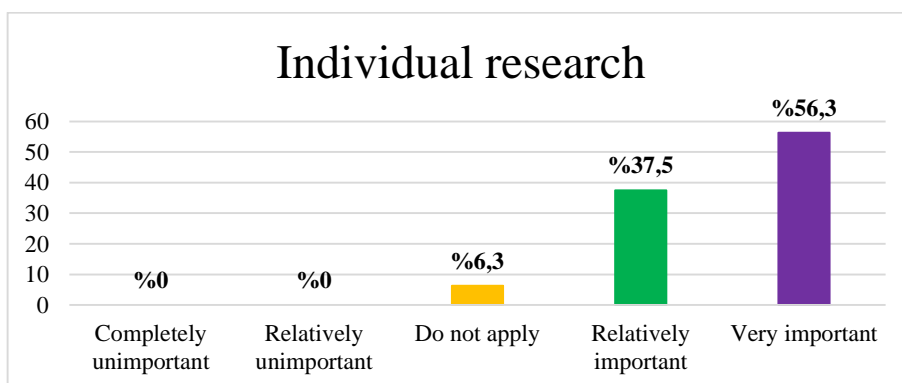


Figure 4.9 Frequency of Responses for Individual Research

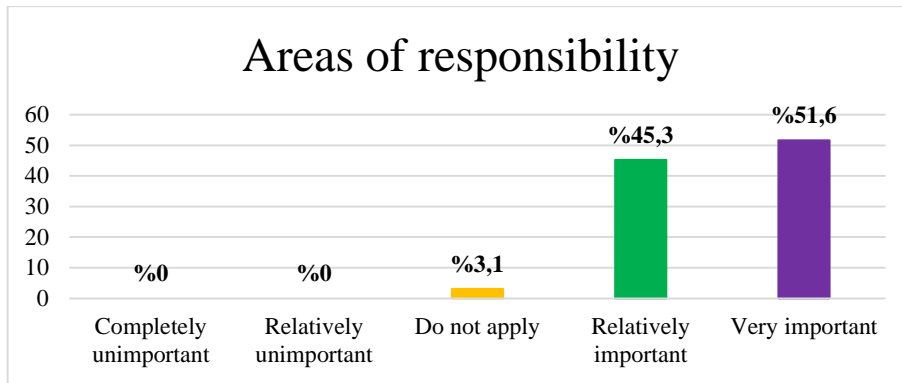


Figure 4.10 Frequency of Responses for Areas of Responsibility

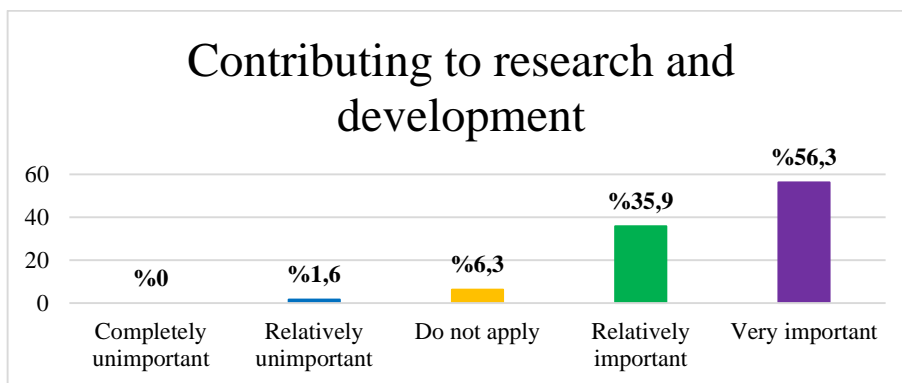


Figure 4.11 Frequency of Responses for Contributing to Research and Development

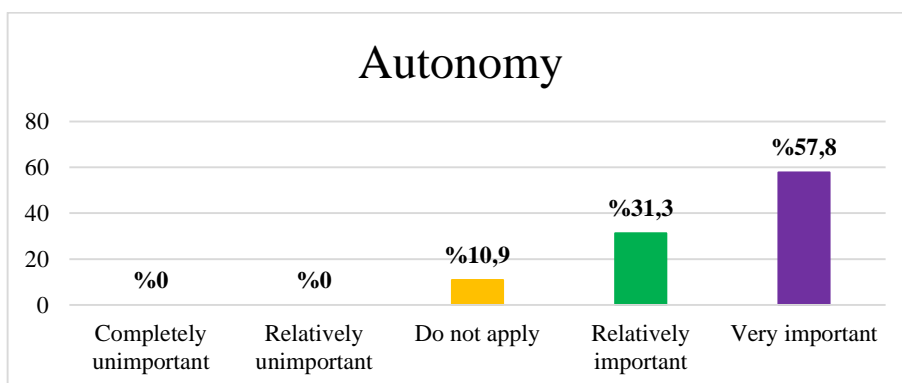


Figure 4.12 Frequency of Responses for Autonomy

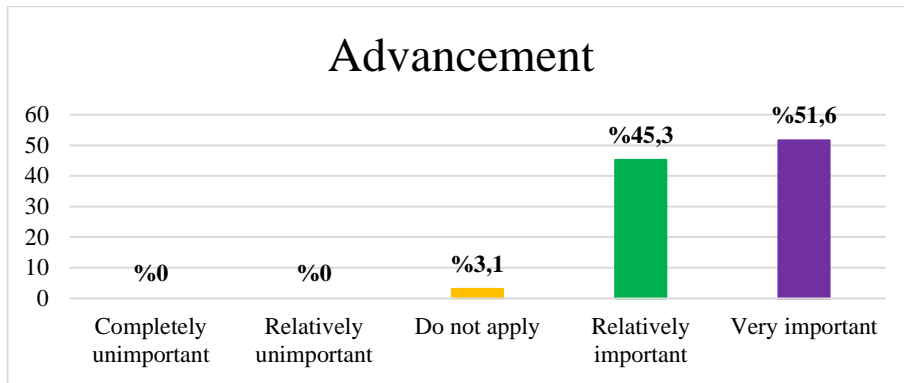


Figure 4.13 Frequency of Responses for Advancement

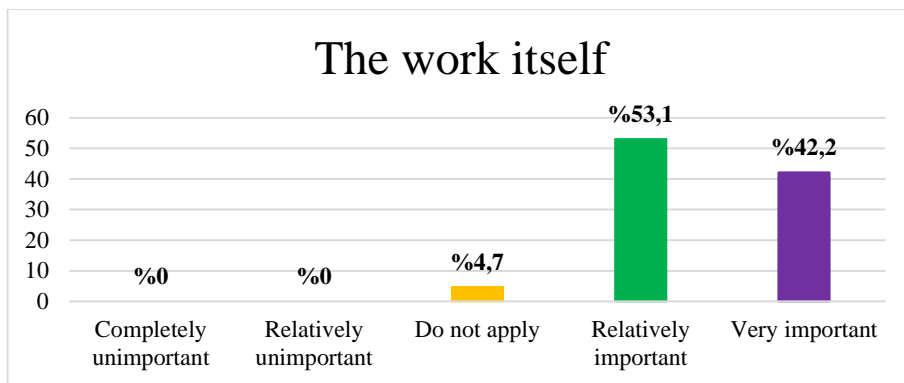


Figure 4.14 Frequency of Responses for The Work Itself

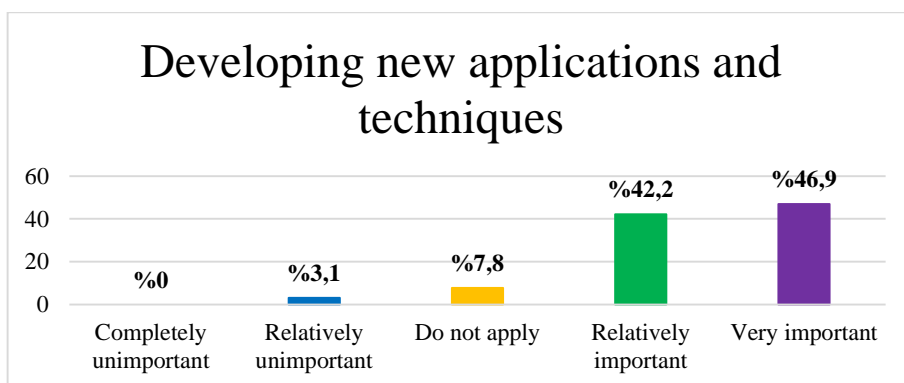


Figure 4.15 Frequency of Responses for Developing New Applications and Techniques

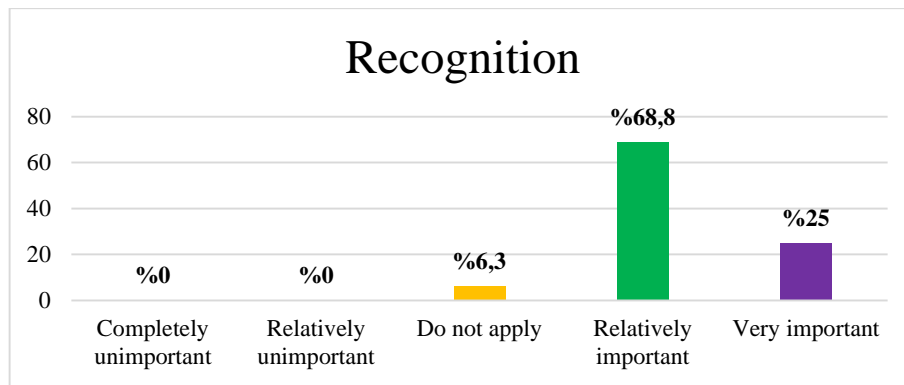


Figure 4.16 Frequency of Responses for Recognition

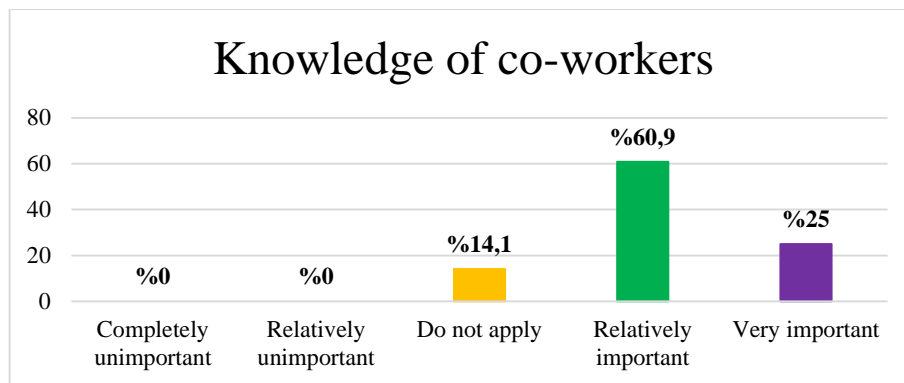


Figure 4.17 Frequency of Responses for Knowledge of Co-workers

4.2 The Motivation and Hygiene Factors Shaping Academicians' Job Satisfaction

Question 2: What are the motivation and hygiene factors that shape academicians' job satisfaction? Question 2 resembles Question 1, however, this time, the question was formulated to determine the factors that contributed to academicians' job satisfaction. In formulating the question, predetermined motivation and hygiene factors in the Two-Factor theory were used with certain adaptations specific to academia. The participants ranked each factor using a five-point Likert scale between "Very Important" to "Completely Unimportant". After the descriptive statistical analysis was conducted, the results for this research question are reported for each factor, in the form of numbers and percentages of participant academicians in Table 4.3 below. As was the case in question 1, the participating academicians were not

aware of which questions were asked to capture their opinions on motivation or hygiene factors as the questions were not asked in an order of factors.

Table 4.3 Frequency of the Results for the Hygiene and Motivator Factors Affecting Academicians' Job Satisfaction

Importance of factors for job satisfaction: n (%)	Completely unimportant	Relatively unimportant	Do not apply	Relatively important	Very important
Salary	0 (0)	0 (0)	0 (0)	20 (31,3)	44 (68,8)
Job security	0 (0)	0 (0)	3 (4,7)	18 (28,1)	43 (67,2)
Good work conditions	0 (0)	0 (0)	1 (1,6)	15 (23,4)	48 (75)
Relationship with colleagues	0 (0)	2 (3,1)	3 (4,7)	34 (53,1)	25 (39,1)
Interesting work	0 (0)	0 (0)	4 (6,3)	27 (42,2)	33 (51,6)
Developing skills and knowledge	0 (0)	0 (0)	0 (0)	19 (29,7)	45 (70,3)
Infrastructural accessibility	0 (0)	0 (0)	1 (1,6)	31 (48,4)	32 (50)
Contract terms	0 (0)	0 (0)	0 (0)	17 (26,6)	47 (73,4)
Flexible hours	0 (0)	0 (0)	5 (7,8)	20 (31,3)	39 (60,9)
Physical office environment	0 (0)	0 (0)	4 (6,3)	34 (53,1)	26 (40,6)
Positive feedback from supervisors	1 (1,6)	2 (3,1)	1 (1,6)	34 (53,1)	26 (40,6)
Recognition	0 (0)	1 (1,6)	3 (4,7)	36 (56,3)	24 (37,5)

The means and standard deviations of the results for Question 2 are presented in Table 4.4 in terms of hygiene and motivator factors stated in the Two-Factor theory.

Table 4.4 Means and Standard Deviations of Hygiene and Motivator Factors Affecting Academicians' Job Satisfaction

Importance of factors for job satisfaction:	Mean±SD
Hygiene Factors	
Contract terms	4,73 ± 0,44
Good work conditions	4,73 ± 0,47
Salary	4,69 ± 0,46
Job security	4,63 ± 0,57
Flexible hours	4,53 ± 0,64
Infrastructural accessibility	4,48 ± 0,53
Physical office environment	4,34 ± 0,59
Relationship with colleagues	4,28 ± 0,70
Positive feedback from supervisors	4,28 ± 0,78
Motivator Factors	
Developing skills and knowledge	4,70 ± 0,46
Interesting work	4,45 ± 0,61
Recognition	4,30 ± 0,63

For Research Question 2, the hygiene and motivator factors are also displayed in bar charts below, in the order of importance according to the mean and standard deviation values of the responses given by the participant academicians investigated in the study.

4.2.1 Hygiene Factors

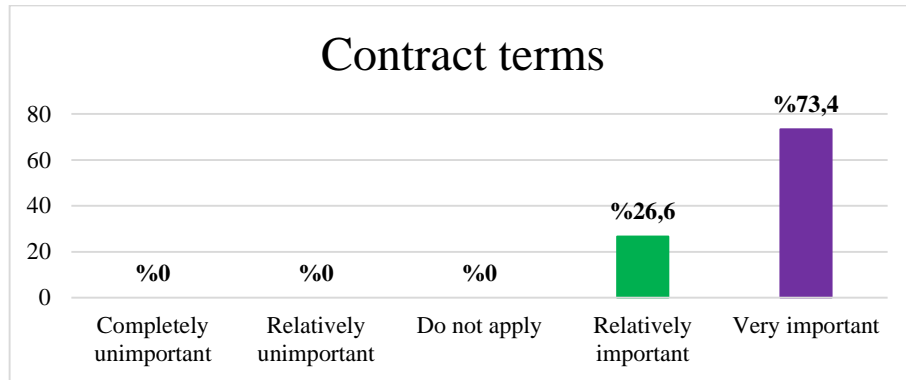


Figure 4.18 Frequency of Responses for Contract Terms

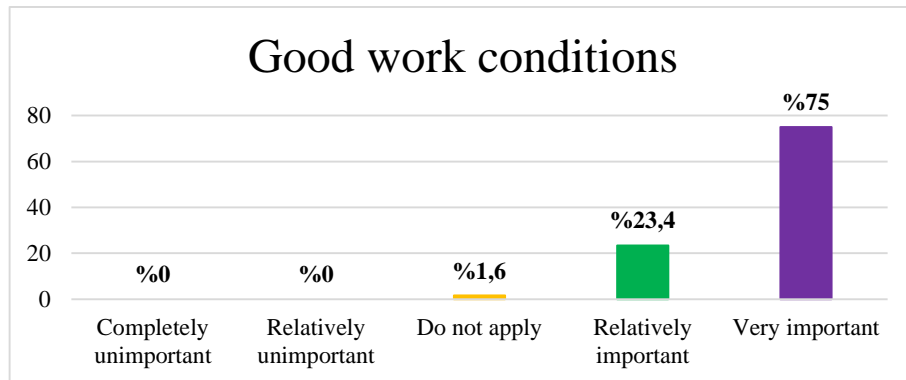


Figure 4.19 Frequency of Responses for Good Work Conditions

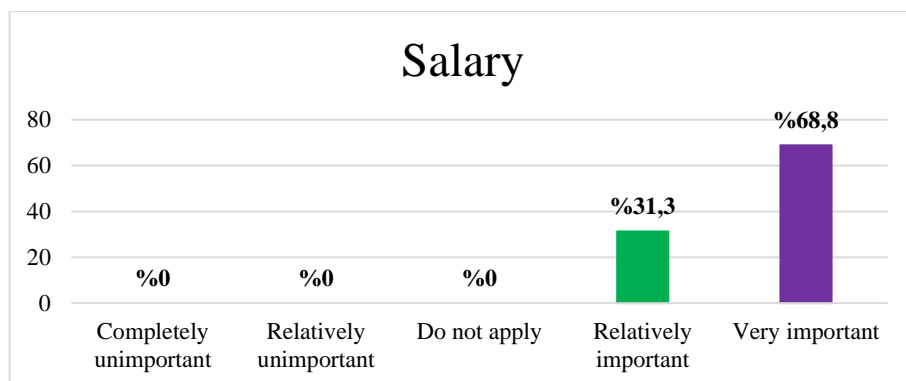


Figure 4.20 Frequency of Responses for Salary

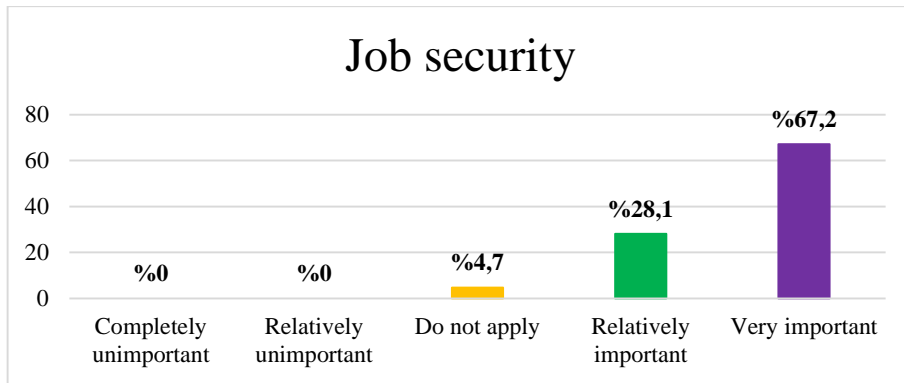


Figure 4.21 Frequency of Responses for Job Security

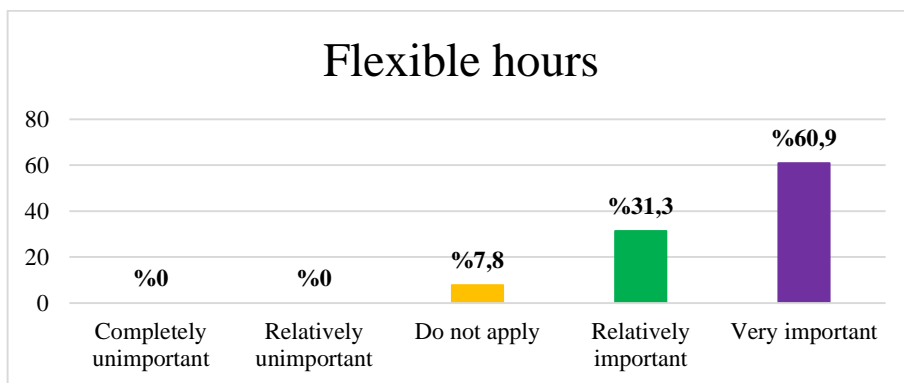


Figure 4.22 Frequency of Responses for Flexible Hours

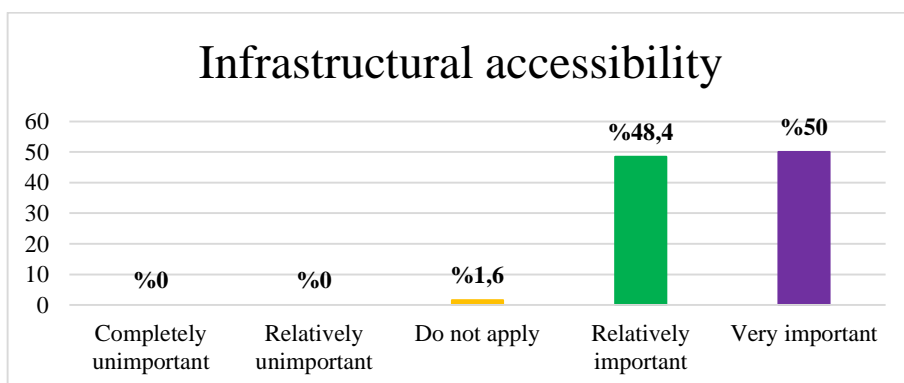


Figure 4.23 Frequency of Responses for Infrastructural Accessibility

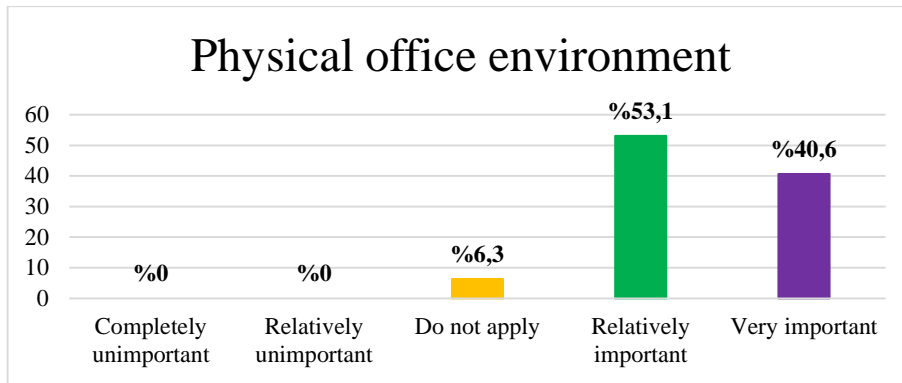


Figure 4.24 Frequency of Responses for Physical Office Environment

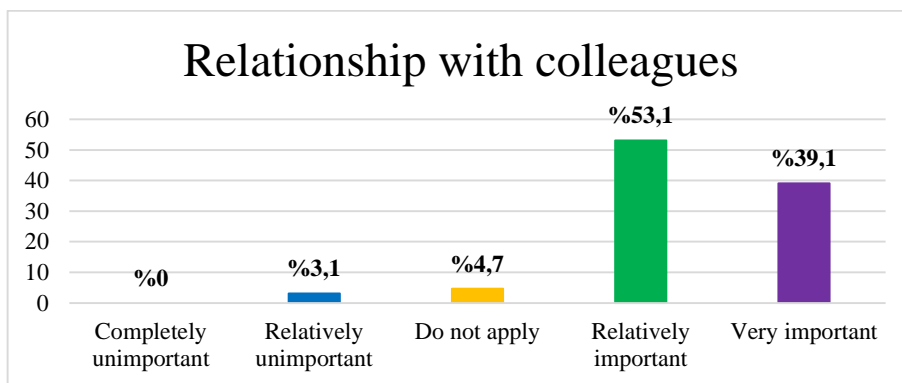


Figure 4.25 Frequency of Responses for Relationship with Colleagues

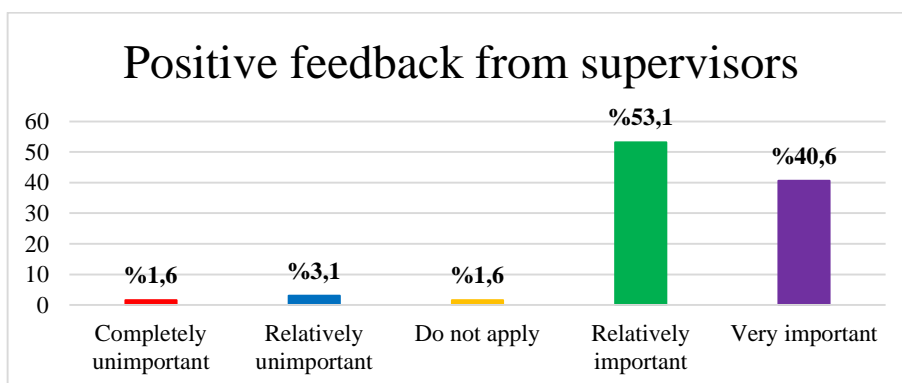


Figure 4.26 Frequency of Responses for Positive Feedback from Supervisors

4.2.2 Motivator Factors

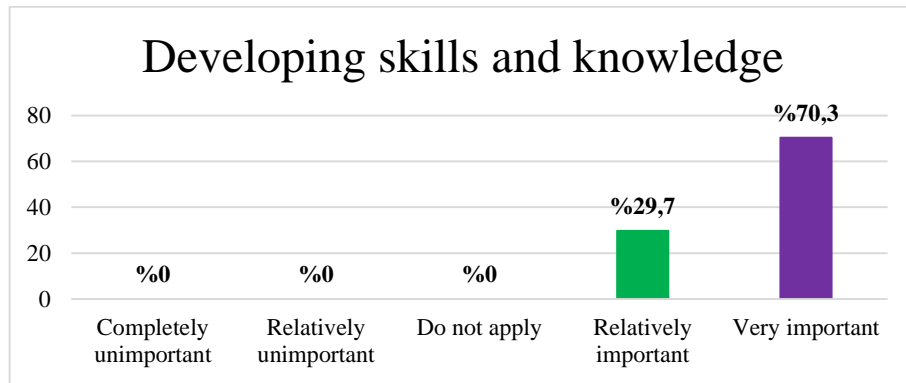


Figure 4.27 Frequency of Responses for Developing Skills and Knowledge

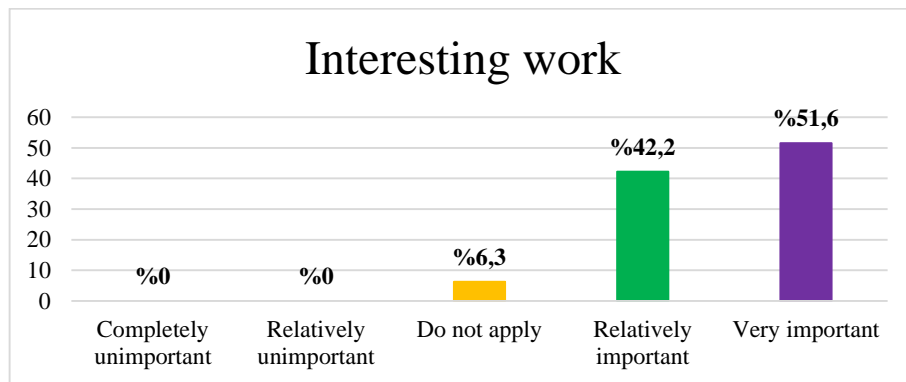


Figure 4.28 Frequency of Responses for Interesting Work

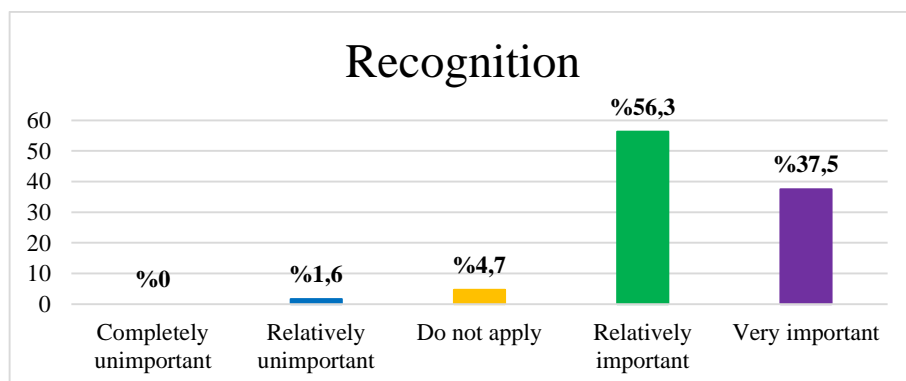


Figure 4.29 Frequency of Responses for Recognition

4.3 Factors That De-motivate Academicians When They are not Present

Question 3: Which factors de-motivate academicians when they are not present? In Question 3 the participants were asked to rank factors that would contribute to demotivation in their absence. The question was formulated to present the motivation and hygiene factors of the Two-Factor Theory with certain adaptations specific to academia. The respondents used a five-point Likert scale between “Strongly Agree” to “Strongly Disagree” to rank the factors. After the descriptive statistical analysis, the results for this research question are reported for each factor, in the form of the numbers and percentages in Table 4.5 below. Once again, the participants were not aware which questions were asked to capture their opinions on motivation or hygiene factors as the questions were not asked in an order of factors.

Table 4.5 Frequency of the Results for the Factors That De-motivate Academicians When They are not Present

Factors that de-motivate when absent n (%)	Strongly Disagree	Disagree	Indifferent	Agree	Strongly Agree
Current salary level	0 (0)	1 (1,6)	1 (1,6)	19 (29,7)	43 (67,2)
Flexible hours	0 (0)	1 (1,6)	7 (10,9)	27 (42,2)	29 (45,3)
Work recognition	1 (1,6)	1 (1,6)	7 (10,9)	34 (53,1)	21 (32,8)
Status	0 (0)	0 (0)	15 (23,4)	38 (59,4)	11 (17,2)
Job security	1 (1,6)	0 (0)	3 (4,7)	28 (43,8)	32 (50)
Work conditions	0 (0)	0 (0)	0 (0)	22 (34,4)	42 (65,6)
Making a difference	0 (0)	1 (1,6)	8 (12,5)	31 (48,4)	24 (37,5)
Developing academic skills	0 (0)	0 (0)	4 (6,3)	26 (40,6)	34 (53,1)
Work environment (office space, infrastructural equipment, etc)	0 (0)	0 (0)	4 (6,3)	31 (48,4)	29 (45,3)
Creating results	0 (0)	0 (0)	4 (6,3)	35 (54,7)	25 (39,1)
Developing own capabilities	0 (0)	0 (0)	2 (3,1)	23 (35,9)	39 (60,9)

The means and standard deviations of the results for Research Question 3 are presented in Table 4.6 in terms of the hygiene and motivator factors in the Two-Factor theory.

Table 4.6 Means and Standard Deviations of Factors That De-motivate Academicians When They are not Present

Factors that de-motivate when absent	Mean±SD
Hygiene Factors	
Work conditions	4,66 ± 0,47
Today's salary level	4,63 ± 0,60
Job security	4,41 ± 0,72
Work environment (office space, infrastructural equipment, etc)	4,39 ± 0,60
Flexible hours	4,31 ± 0,73
Status	3,94 ± 0,63
Motivator Factors	
Developing own capabilities	4,58 ± 0,55
Developing academic skills	4,47 ± 0,61
Creating results	4,33 ± 0,59
Making a difference	4,22 ± 0,72
Work recognition	4,14 ± 0,79

For Research Question 3, the hygiene and motivator factors are also displayed in bar charts below, in the order of importance according to the mean and standard deviation values of the responses given by the participant academicians investigated in the study.

4.3.1 Hygiene Factors

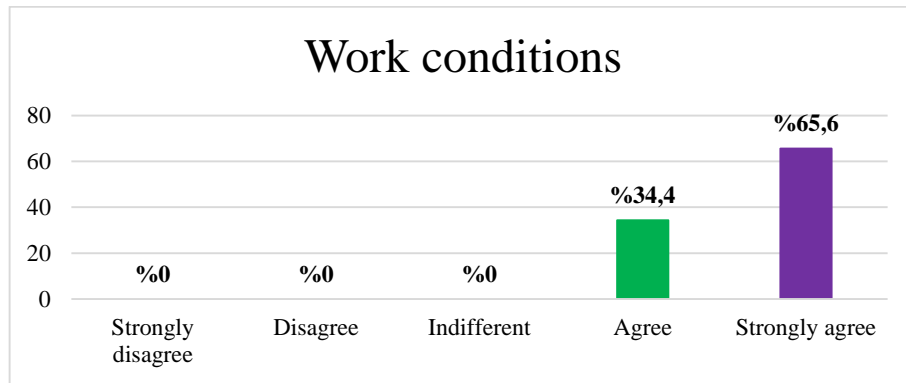


Figure 4.30 Frequency of Responses for Work Conditions

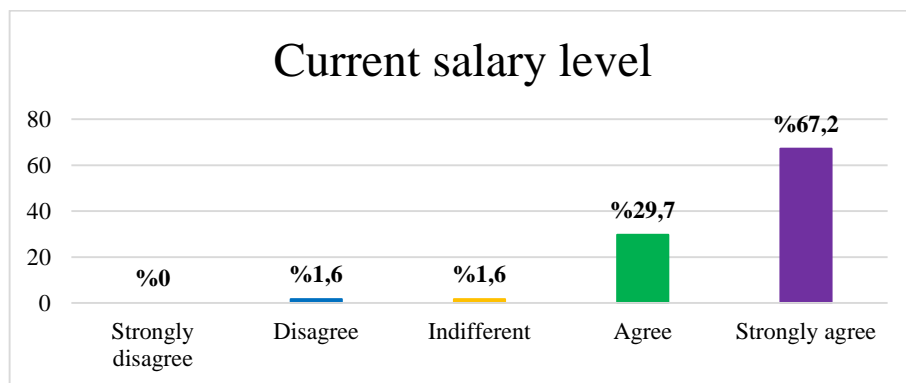


Figure 4.31 Frequency of Responses for Current Salary Level

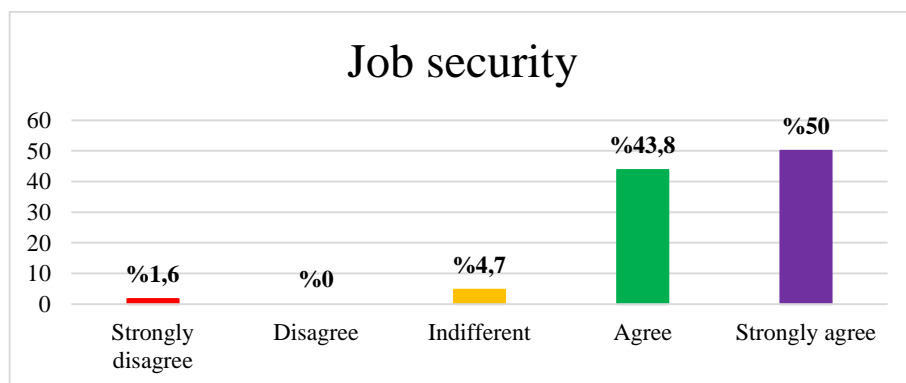


Figure 4.32 Frequency of Responses for Job Security

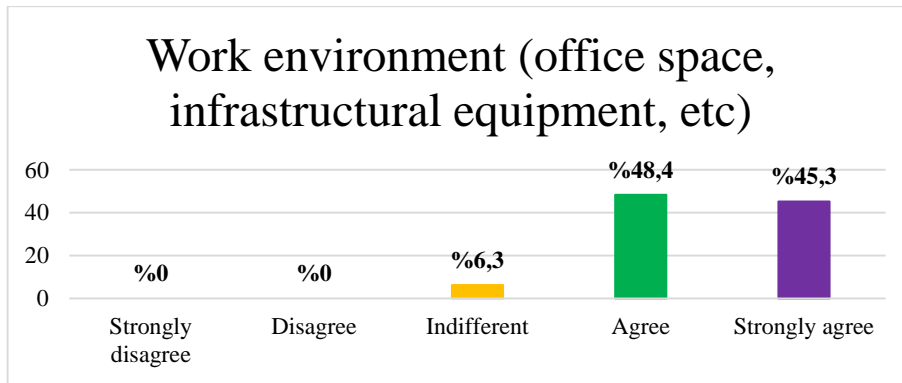


Figure 4.33 Frequency of Responses for Work Environment

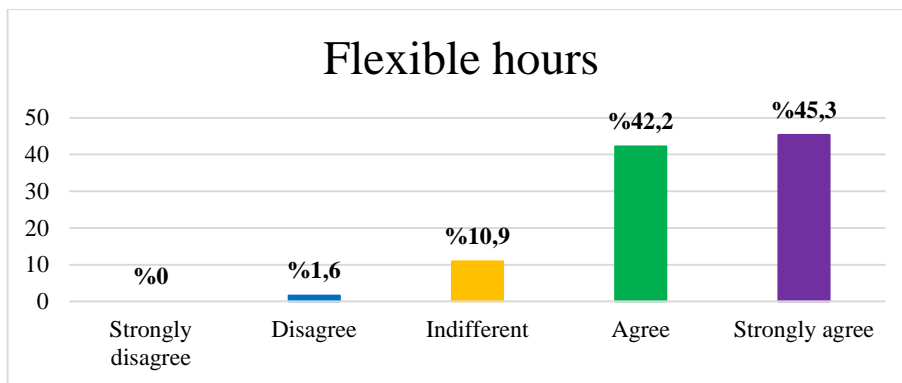


Figure 4.34 Frequency of Responses for Flexible Hours

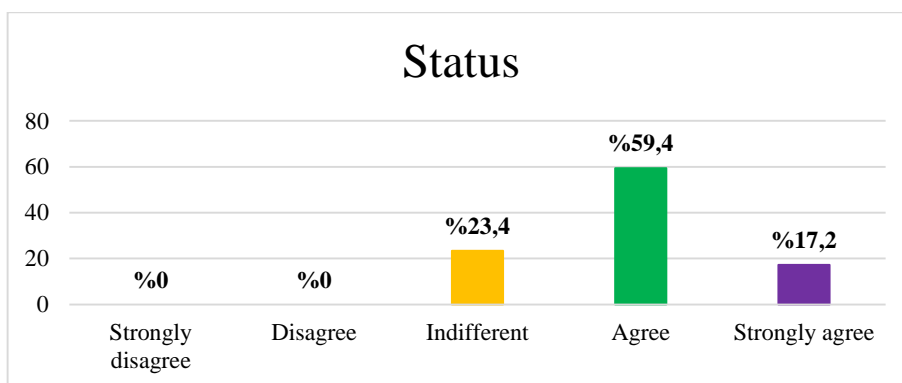


Figure 4.35 Frequency of Responses for Status

4.3.2 Motivator Factors

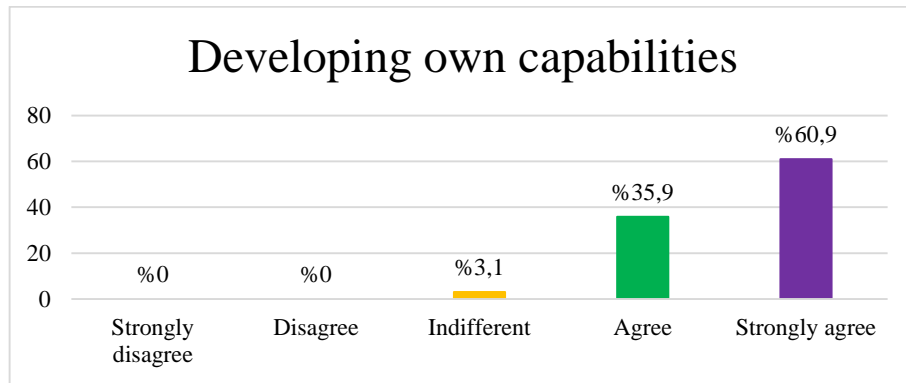


Figure 4.36 Frequency of Responses for Developing Own Capabilities

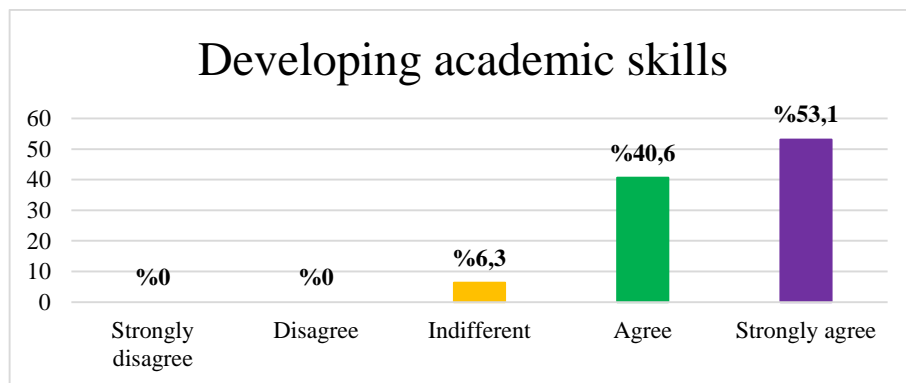


Figure 4.37 Frequency of Responses for Developing Academic Skills

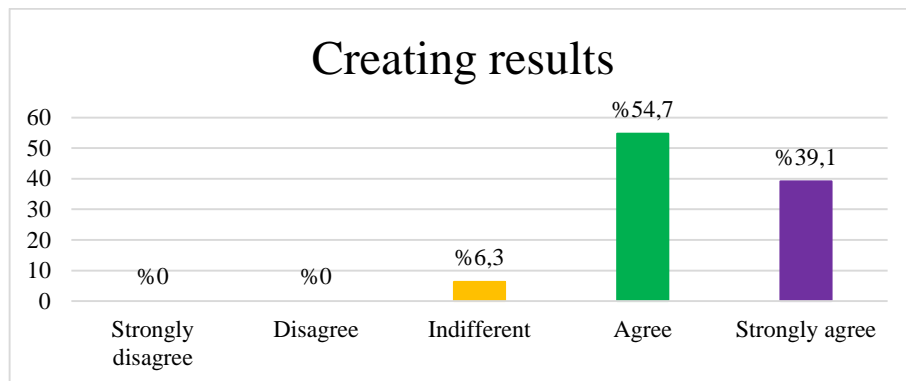


Figure 4.38 Frequency of Responses for Creating Results

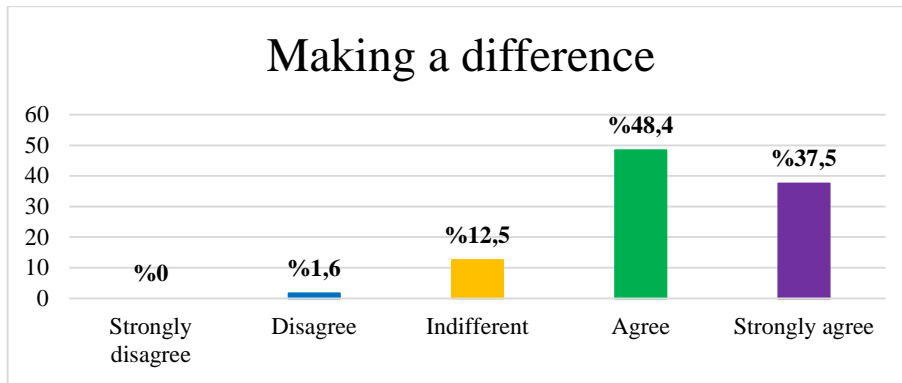


Figure 4.39 Frequency of Responses for Making a Difference

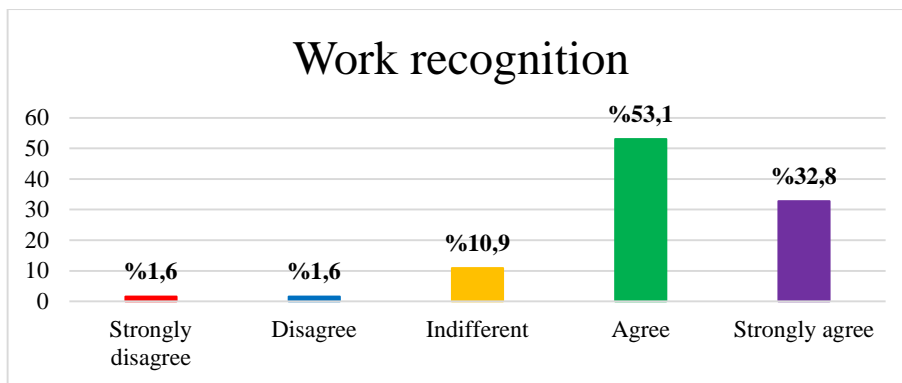


Figure 4.40 Frequency of Responses for Work Recognition

4.4 Factors Inspiring Academicians to Perform Better

Question 4: Which factors inspire academicians to perform better? Question 4 listed several factors asking the academicians to find out what caused increased performance. Once again, the question was formulated to present the motivation and hygiene factors of the Two-Factor theory with certain adaptations specific to academia. The participants ranked each factor on a four-point scale between “Very Inspiring” to “Do Not Inspire at All”. The descriptive statistical analysis results for this research question are reported for each factor, in the form of number and percentages in Table 4.7 below. Once again, the participants were not aware which questions were asked to capture their opinions on motivation or hygiene factors as the questions were not asked in an order of factors.

Table 4.7 Frequency of the Results for the Factors Inspiring Academicians to Perform Better

Factors inspiring academicians to perform better n (%)	Do not inspire at all	Irrelevant	Somewhat Inspiring	Very Inspiring
Developing academic skills	0 (0)	0 (0)	6 (9,4)	58 (90,6)
Specific goal achievements	0 (0)	0 (0)	8 (12,5)	56 (87,5)
High expectations	0 (0)	13 (20,3)	29 (45,3)	22 (34,4)
Positive feedback from supervisor	1 (1,6)	1 (1,6)	26 (40,6)	36 (56,3)
Teamwork	1 (1,6)	6 (9,4)	38 (59,4)	19 (29,7)
Work environment (Office space, lunch options, colleagues)	0 (0)	1 (1,6)	30 (46,9)	33 (51,6)
Making a difference in the field	0 (0)	3 (4,7)	7 (10,9)	54 (84,4)
Salary and benefits	0 (0)	0 (0)	8 (12,5)	56 (87,5)
University's reputation	0 (0)	1 (1,6)	17 (26,6)	46 (71,9)
Student success	1 (1,6)	2 (3,1)	24 (37,5)	37 (57,8)

The means and standard deviations of the results for Research Question 4 are presented in Table 4.8 in terms of the hygiene and motivator factors in the Two-Factor theory.

Table 4.8 Means and Standart Deviations of Factors Inspiring Academicians to Perform Better

Factors inspiring academicians to perform better	Mean±SD
Hygiene Factors	
Salary and benefits	3,88 ± 0,33
University's reputation	3,70 ± 0,49
Positive feedback from supervisor	3,52 ± 0,61
Work environment (Office space, lunch options, colleagues)	3,50 ± 0,53
Teamwork	3,17 ± 0,65
Motivator Factors	
Developing academic skills	3,91 ± 0,29
Specific goal achievements	3,88 ± 0,33
Making a difference in the field	3,80 ± 0,51
Student success	3,52 ± 0,64
High expectations	3,14 ± 0,73

For Research Question 4, the hygiene and motivator factors are also displayed in bar charts below, in the order of importance according to the mean and standard deviation values of the responses given by the participant academicians investigated in the study.

4.4.1 Hygiene Factors

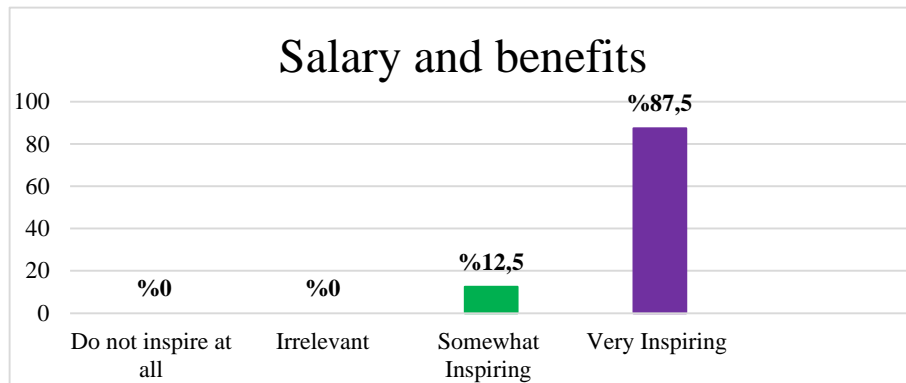


Figure 4.41 Frequency of Responses for Salary and Benefits

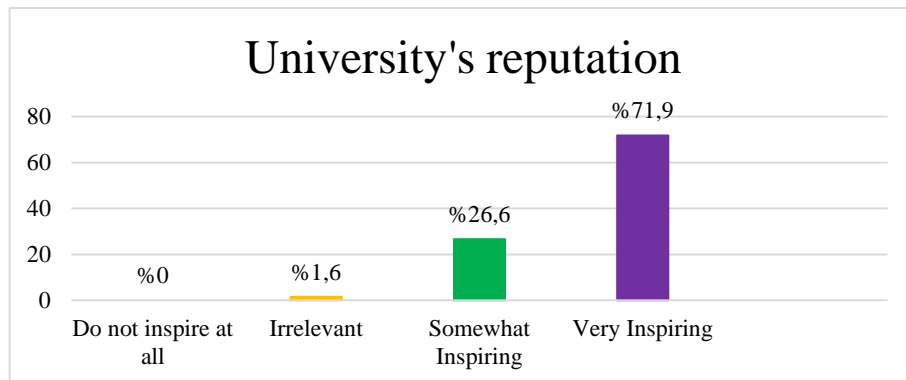


Figure 4.42 Frequency of Responses for University's Reputation

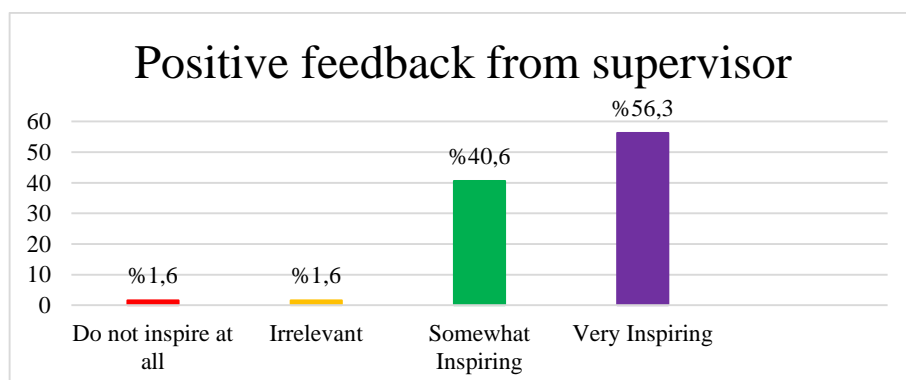


Figure 4.43 Frequency of Responses for Positive Feedback from Supervisor

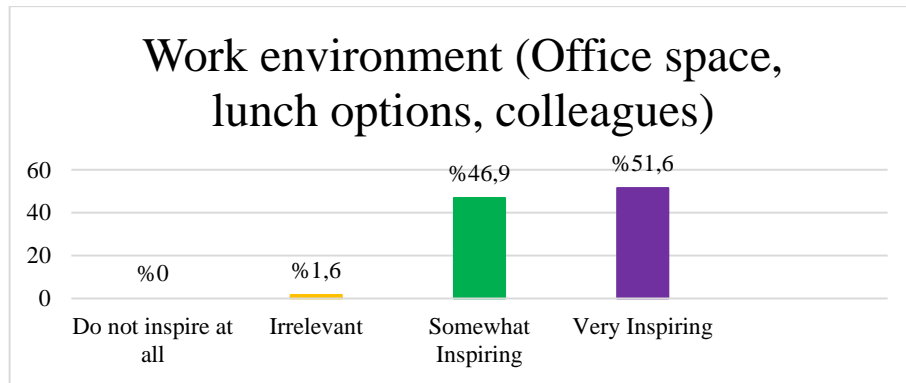


Figure 4.44 Frequency of Responses for Work Environment

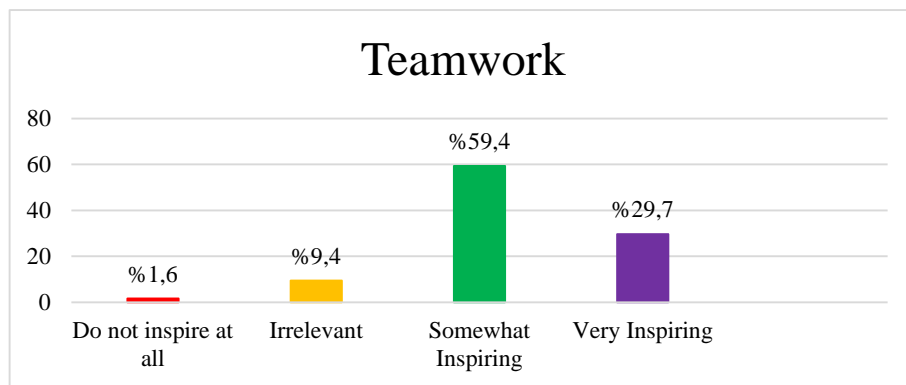


Figure 4.45 Frequency of Responses for Teamwork

4.4.2 Motivator Factors

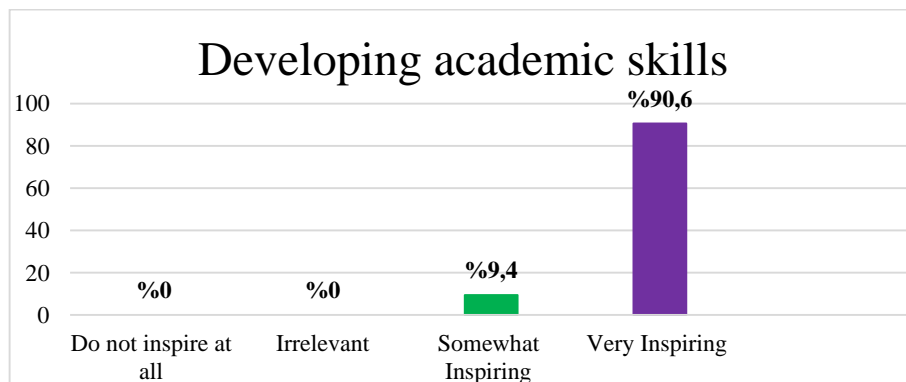


Figure 4.46 Frequency of Responses for Developing Academic Skills

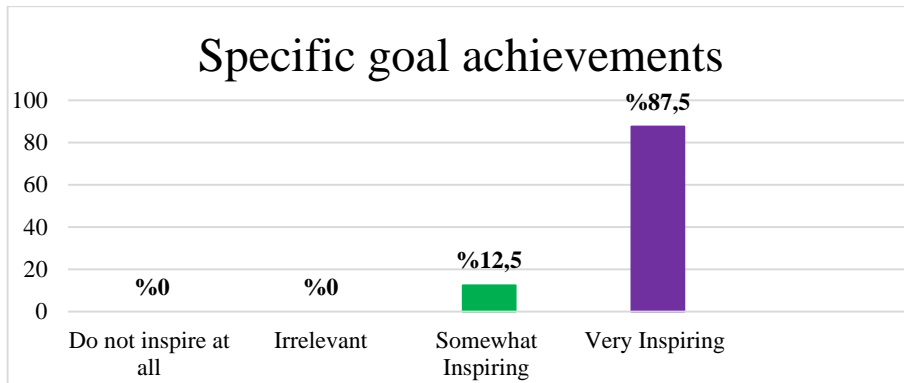


Figure 4.47 Frequency of Responses for Specific Goal Achievements

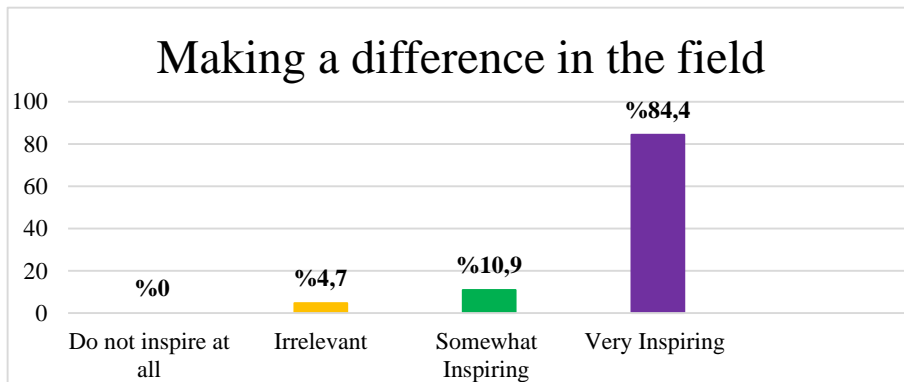


Figure 4.48 Frequency of Responses for Making a Difference in the Field

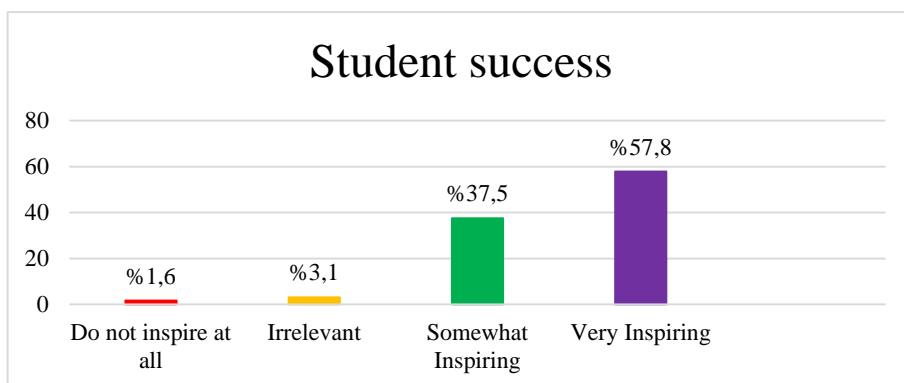


Figure 4.49 Frequency of Responses for Student Success

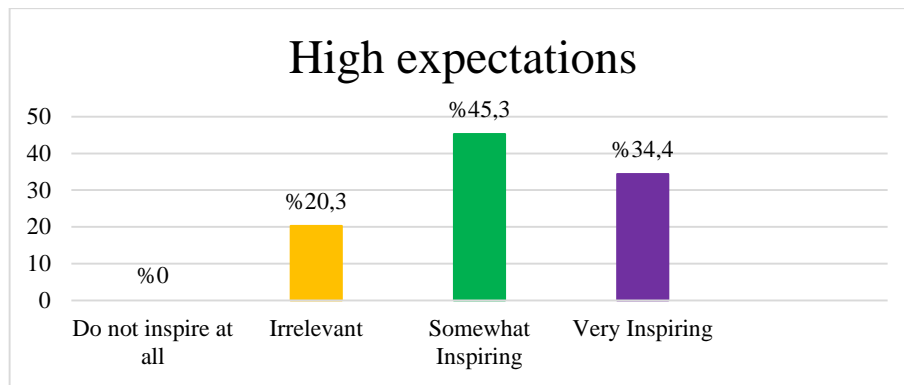


Figure 4.50 Frequency of Responses for High Expectations

4.5 Statements That Academicians Found Relevant for Themselves at Their Current University

Question 5: What are the factors that give job satisfaction to academicians at the universities they currently work? Question 5 asked the respondents to answer which given statements were relevant to them in their university. Once again, the question was formulated to present the motivation and hygiene factors of the Two-Factor Theory with certain adaptations specific to academia. The respondents were asked to rank each factor on a five-point scale between “Strongly Agree” to “Strongly Disagree”. After the descriptive statistical analysis was conducted, the results for this question are reported for each factor, in the form of numbers and percentages in Table 4.9 below. Once again, the participants were not aware which questions were asked to capture their opinions on motivation or hygiene factors as the questions were not asked in an order of factors.

Table 4.9 Frequency of the Results for the Statements That Academicians Found Relevant for Themselves at Their Current University

Relevance of statements n (%)	Strongly Disagree	Disagree	Indifferent	Agree	Strongly Agree
I receive great satisfaction in knowing that I am working for a better world	4 (6,3)	7 (10,9)	15 (23,4)	21 (32,8)	17 (26,6)
I receive great satisfaction in developing my own knowledge and skills	2 (3,1)	5 (7,8)	11 (17,2)	26 (40,6)	20 (31,3)
I receive great satisfaction in receiving recognition for my work	2 (3,1)	13 (20,3)	11 (17,2)	25 (39,1)	13 (20,3)
I receive great satisfaction in having a safe workplace	4 (6,3)	9 (14,1)	10 (15,6)	23 (35,9)	18 (28,1)
I receive great satisfaction in developing applications and techniques which is used in my field	4 (6,3)	11 (17,2)	9 (14,1)	21 (32,8)	19 (29,7)
I receive great satisfaction in having a lot of responsibility in my job	3 (4,7)	10 (15,6)	23 (35,9)	21 (32,8)	7 (10,9)
I receive great satisfaction in managing my own workday	7 (10,9)	7 (10,9)	6 (9,4)	19 (29,7)	25 (39,1)
I receive great satisfaction in today's tangible perks (salary, contract terms, health benefits, etc)	18 (28,1)	19 (29,7)	10 (15,6)	7 (10,9)	10 (15,6)
I receive great satisfaction in the infrastructural facilities available	5 (7,8)	16 (25)	9 (14,1)	22 (34,4)	12 (18,8)
I receive great satisfaction in knowing that I have many advancement possibilities	7 (10,9)	13 (20,3)	16 (25)	17 (26,6)	11 (17,2)
I receive great satisfaction in having social interactions with my coworkers	3 (4,7)	3 (4,7)	12 (18,8)	28 (43,8)	18 (28,1)

The means and standard deviations of the results for Research Question 5 are presented in Table 4.10 in terms of hygiene and motivator factors in the Two-Factor theory.

Table 4.10 Means and Standard Deviations for the Statements That Academicians Found Relevant for Themselves at Their Current University

Relevance of statements	Mean±SD
Hygiene Factors	
I receive great satisfaction in having social interactions with my coworkers	3,86 ± 1,03
I receive great satisfaction in managing my own workday	3,75 ± 1,36
I receive great satisfaction in having a safe workplace	3,66 ± 1,21
I receive great satisfaction in the infrastructural facilities available	3,31 ± 1,25
I receive great satisfaction in today's tangible perks (salary, contract terms, health benefits, etc)	2,56 ± 1,41
Motivator Factors	
I receive great satisfaction in developing my own knowledge and skills	3,89 ± 1,04
I receive great satisfaction in knowing that I am working for a better world	3,63 ± 1,17
I receive great satisfaction in developing applications and techniques which is used in my field	3,62 ± 1,25
I receive great satisfaction in receiving recognition for my work	3,53 ± 1,12
I receive great satisfaction in having a lot of responsibility in my job	3,30 ± 1,01
I receive great satisfaction in knowing that I have many advancement possibilities	3,19 ± 1,25

For Research Question 5, the hygiene and motivator factors are also displayed in bar charts below, in the order of importance according to the mean and standart deviation values of the responses given by the participant academicians investigated in the study.

4.5.1 Hygiene Factors

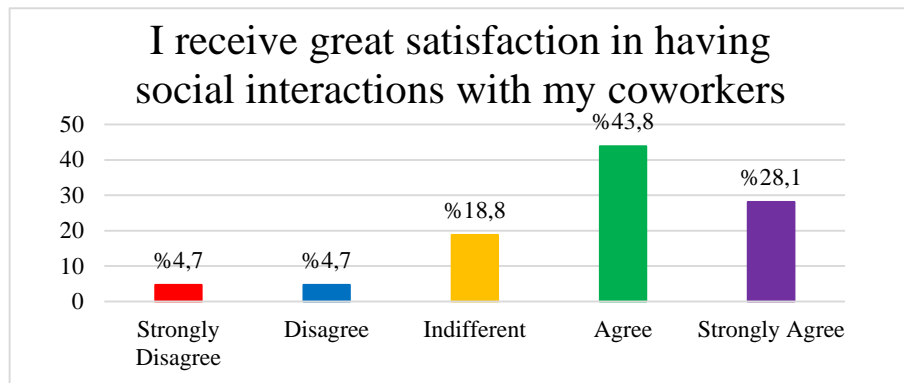


Figure 4.51 Frequency of Responses for “I receive great satisfaction in having social interactions with my coworkers”

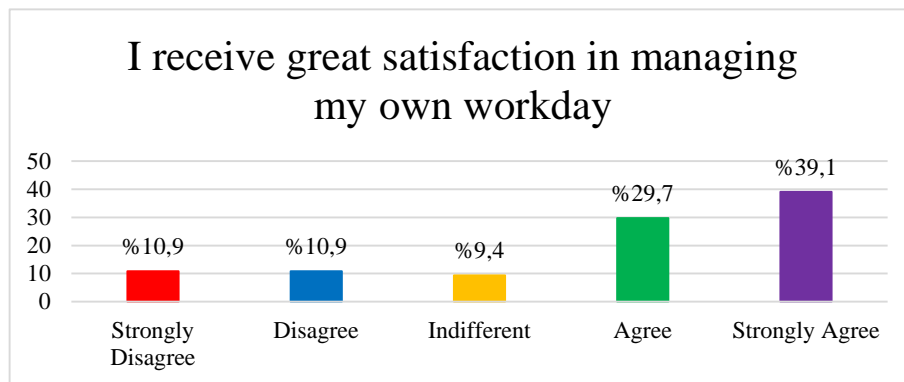


Figure 4.52 Frequency of Responses for “I receive great satisfaction in managing my own work day”



Figure 4.53 Frequency of Responses for “I receive great satisfaction in having a safe workplace”

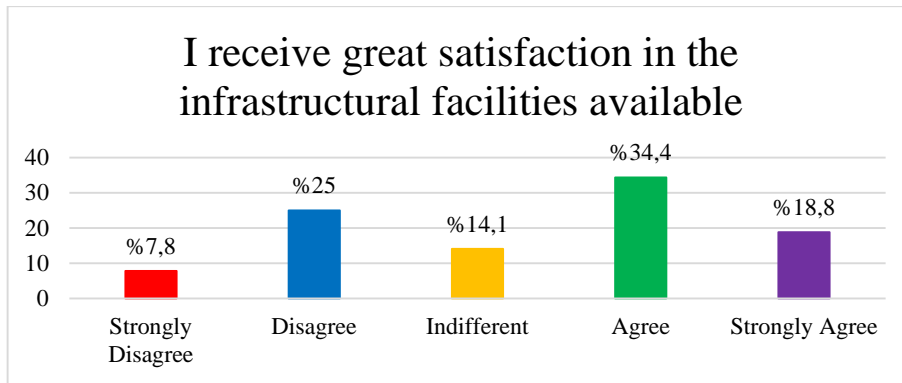


Figure 4.54 Frequency of Responses for “I receive great satisfaction in the infrastructural facilities available”

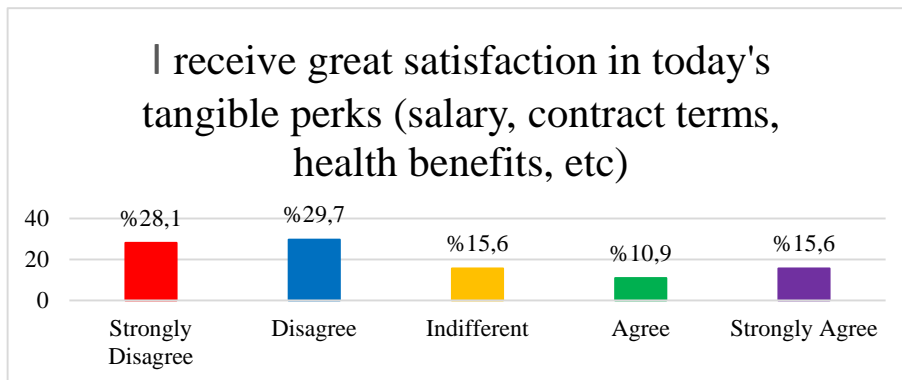


Figure 4.55 Frequency of Responses for “I receive great satisfaction in today's tangible perks (salary, contract terms, health benefits, etc)”

4.5.2 Motivator Factors

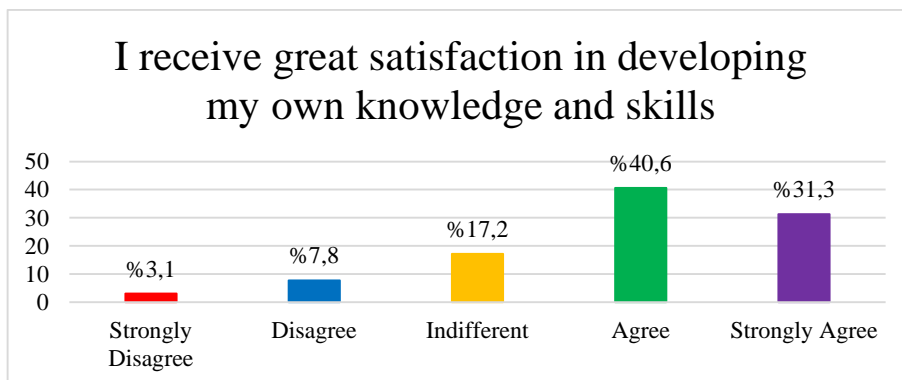


Figure 4.56 Frequency of Responses for “I receive great satisfaction in developing my own knowledge and skills”

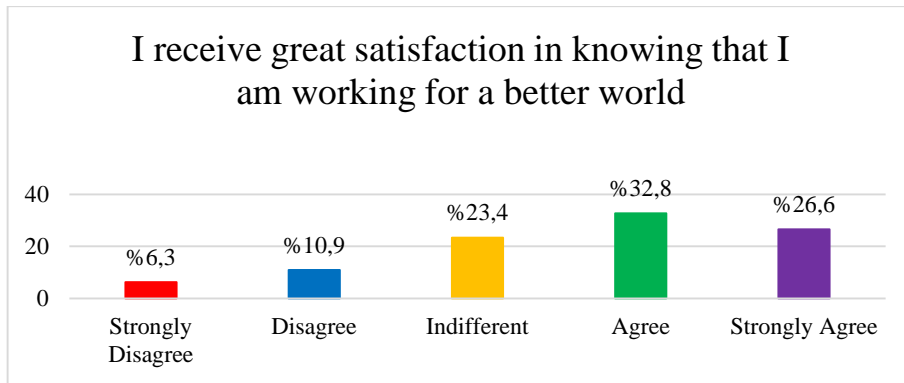


Figure 4.57 Frequency of Responses for “I receive great satisfaction in knowing that I am working for a better world”

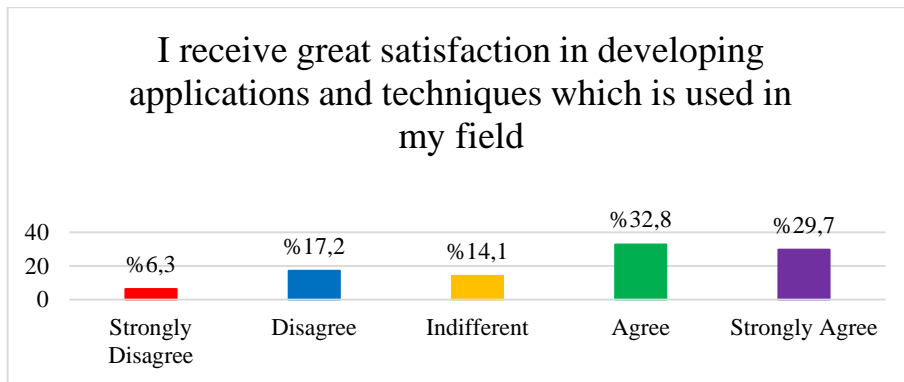


Figure 4.58 Frequency of Responses for “I receive great satisfaction in developing applications and techniques which are used in my field”

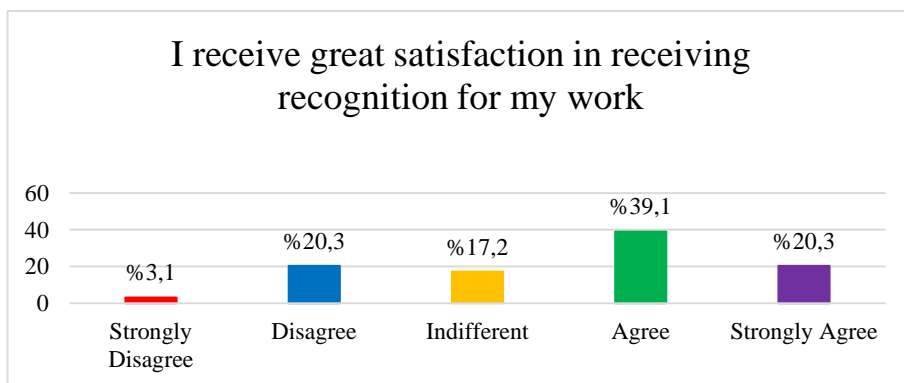


Figure 4.59 Frequency of Responses for “I receive great satisfaction in receiving recognition for my work”

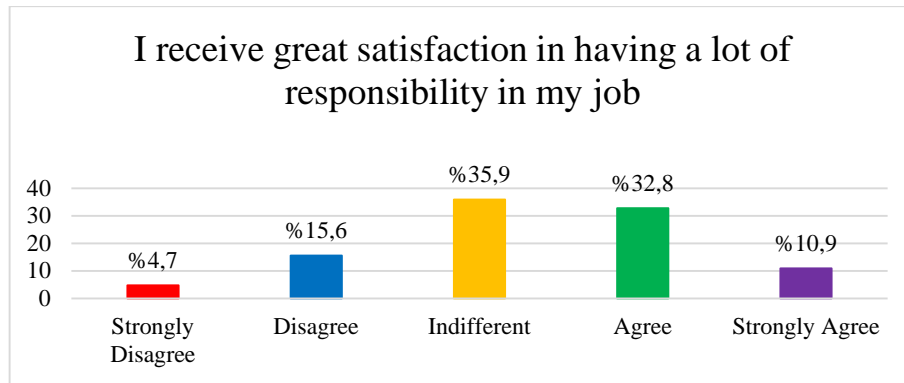


Figure 4.60 Frequency of Responses for “I receive great satisfaction in having a lot of responsibility in my job”

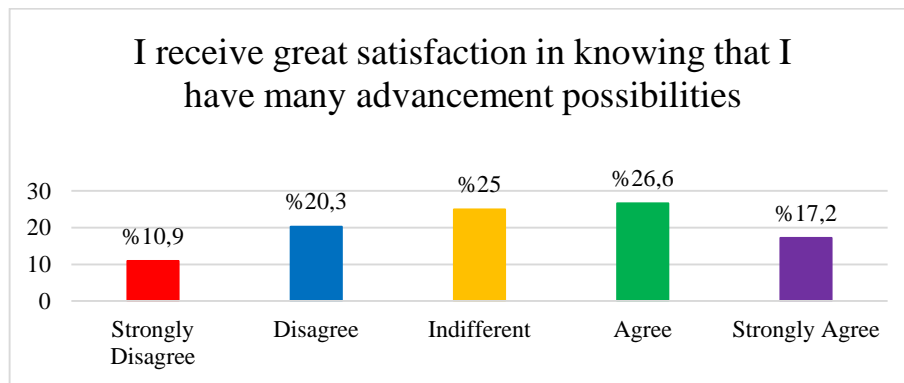


Figure 4.61 Frequency of Responses for “I receive great satisfaction in knowing that I have many advancement possibilities”

4.6 The Order of Importance of the Factors Affecting Academicians’ Workplace Motivation

Question 6: What are the perceptions of academicians about the order of importance of the factors affecting their workplace motivation? Question 6 asked the participants to rank the factors given from 1 – 12, where 1 meant the most important factor and 12 was the least important one affecting participants’ workplace motivation. After the descriptive statistical analysis was conducted, the results for this question are reported for each factor, in the form of numbers and percentages of participant academicians in Table 4.11 below.

Table 4.11 Frequency of the Results for the Order of Importance of the Factors Affecting Academicians' Workplace Motivation

Rating importance of factors on a scale of 1 to 12 for motivation n (%)	1	2	3	4	5	6	7	8	9	10	11	12
Salary and wage benefits	28 (43,8)	10 (15,6)	5 (7,8)	4 (6,3)	4 (6,3)	2 (3,1)	0 (0)	0 (0)	2 (3,1)	3 (4,7)	1 (1,6)	5 (7,8)
Job Security	10 (15,6)	12 (18,8)	9 (14,1)	3 (4,7)	5 (7,8)	2 (3,1)	3 (4,7)	2 (3,1)	0 (0)	3 (4,7)	6 (9,4)	9 (14,1)
Research and Development	2 (3,1)	13 (20,3)	13 (20,3)	10 (15,6)	7 (10,9)	3 (4,7)	1 (1,6)	0 (0)	5 (7,8)	6 (9,4)	2 (3,1)	2 (3,1)
Academic development	11 (17,2)	7 (10,9)	11 (17,2)	16 (25)	2 (3,1)	3 (4,7)	2 (3,1)	4 (6,3)	3 (4,7)	1 (1,6)	2 (3,1)	2 (3,1)
Making a difference	2 (3,1)	3 (4,7)	2 (3,1)	10 (15,6)	17 (26,6)	7 (10,9)	5 (7,8)	10 (15,6)	1 (1,6)	2 (3,1)	2 (3,1)	3 (4,7)
Good work conditions (the office space, lunch)	1 (1,6)	4 (6,3)	7 (10,9)	4 (6,3)	8 (12,5)	19 (29,7)	10 (15,6)	3 (4,7)	2 (3,1)	1 (1,6)	3 (4,7)	2 (3,1)
Infrastructural facilities needed for my research	0 (0)	0 (0)	5 (7,8)	2 (3,1)	5 (7,8)	13 (20,3)	21 (32,8)	8 (12,5)	3 (4,7)	2 (3,1)	2 (3,1)	3 (4,7)
Relationship with colleagues	1 (1,6)	0 (0)	1 (1,6)	4 (6,3)	9 (14,1)	4 (6,3)	10 (15,6)	16 (25)	8 (12,5)	4 (6,3)	2 (3,1)	5 (7,8)
Relationship with managers	2 (3,1)	1 (1,6)	0 (0)	8 (12,5)	4 (6,3)	3 (4,7)	2 (3,1)	7 (10,9)	20 (31,3)	6 (9,4)	3 (4,7)	8 (12,5)
Interesting work	1 (1,6)	1 (1,6)	8 (12,5)	2 (3,1)	1 (1,6)	2 (3,1)	4 (6,3)	6 (9,4)	10 (15,6)	19 (29,7)	8 (12,5)	2 (3,1)
Acknowledgement	2 (3,1)	5 (7,8)	1 (1,6)	1 (1,6)	1 (1,6)	4 (6,3)	3 (4,7)	2 (3,1)	6 (9,4)	11 (17,2)	22 (34,4)	6 (9,4)
Advancement opportunities	4 (6,3)	8 (12,5)	2 (3,1)	0 (0)	1 (1,6)	2 (3,1)	3 (4,7)	6 (9,4)	4 (6,3)	6 (9,4)	11 (17,2)	17 (26,6)

The means and standard deviations of the results for Research Question 6 are presented in Table 4.12 in terms of the hygiene and motivator factors stated in the Two-Factor theory. For this question, the scale for the factors went from 1 (most important) to 12 (least important). This means that the factor with the lowest mean is the most important, and the factor with the highest mean is the least.

Table 4.12 Means and Standard Deviations of the Results for the Order of Importance of the Factors Affecting Academicians' Workplace Motivation

Importance of factors	Mean \pm SD
Salary and wage benefits	3,59 \pm 3,62
Academic development	4,36 \pm 2,98
Research and Development	4,97 \pm 3,13
Job Security	5,48 \pm 4,09
Good work conditions (the office space, lunch)	5,92 \pm 2,45
Making a difference	5,98 \pm 2,57
Infrastructural facilities needed for research	6,91 \pm 2,09
Relationship with colleagues	7,52 \pm 2,36
Relationship with managers	8,02 \pm 2,84
Interesting work	8,13 \pm 2,89
Advancement opportunities	8,33 \pm 3,87
Acknowledgement	8,80 \pm 3,21

For Research Question 6, the factors are also displayed in bar charts below, in the order of importance according to the mean and standard deviation values of the responses given by the participant academicians investigated in the study.

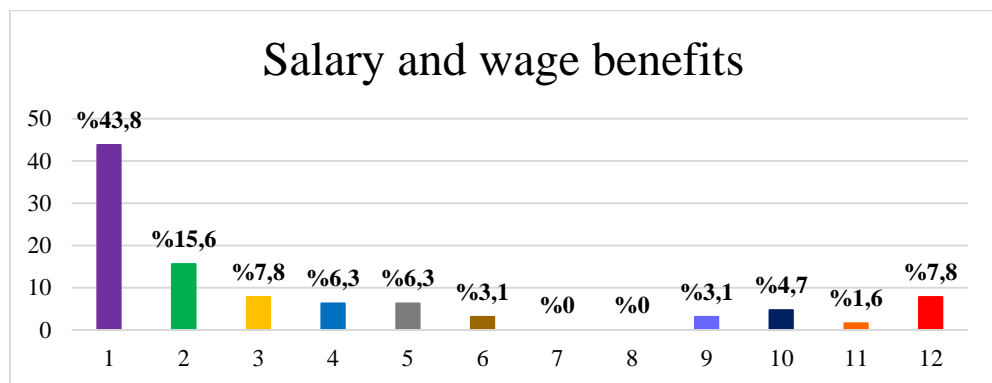


Figure 4.62 Frequency of Responses for Salary and Wage Benefits

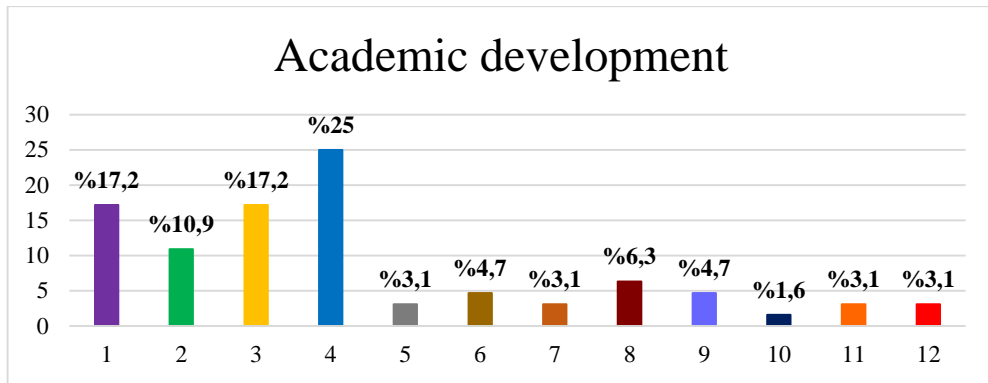


Figure 4.63 Frequency of Responses for Academic Development

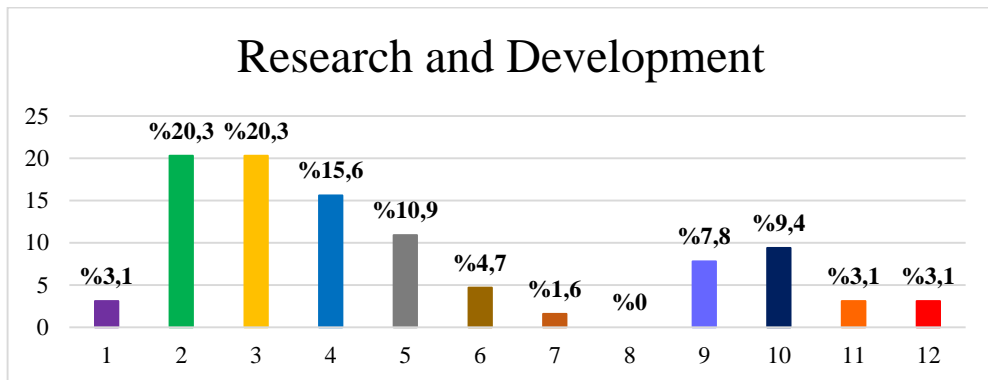


Figure 4.64 Frequency of Responses for Research and Development

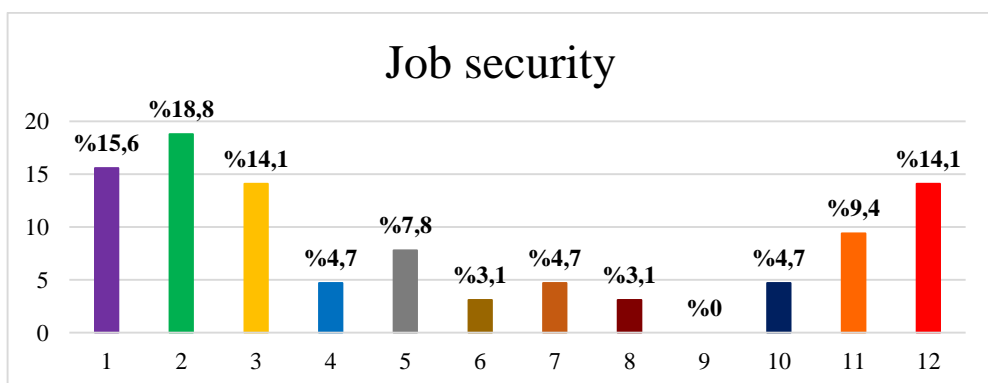


Figure 4.65 Frequency of Responses for Job Security

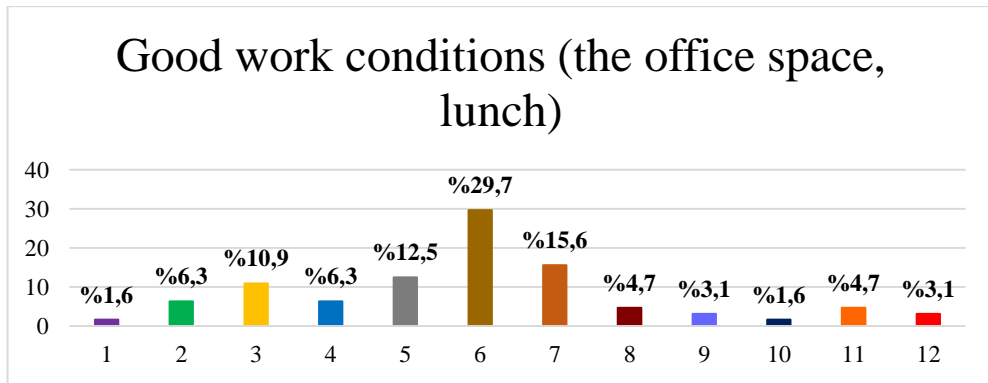


Figure 4.66 Frequency of Responses for Good Work Conditions

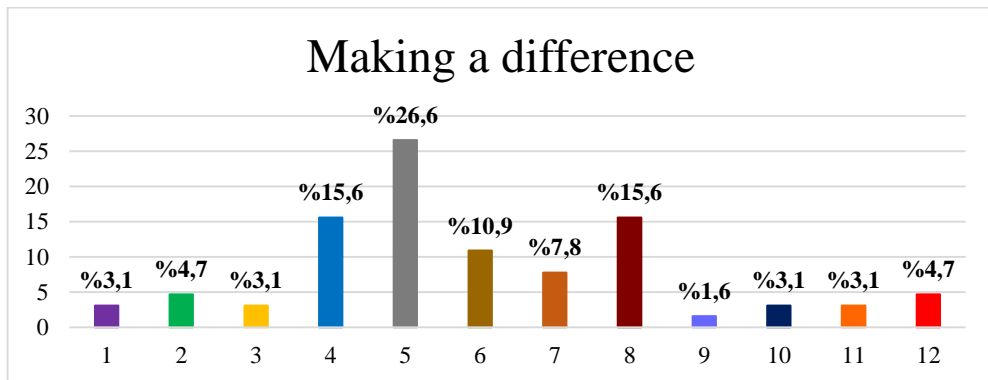


Figure 4.67 Frequency of Responses for Making a Difference

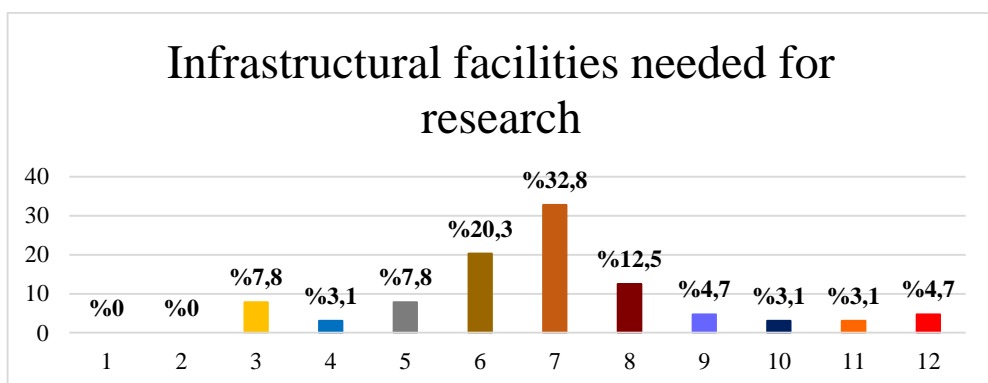


Figure 4.68 Frequency of Responses for Infrastructural Facilities Needed for Research

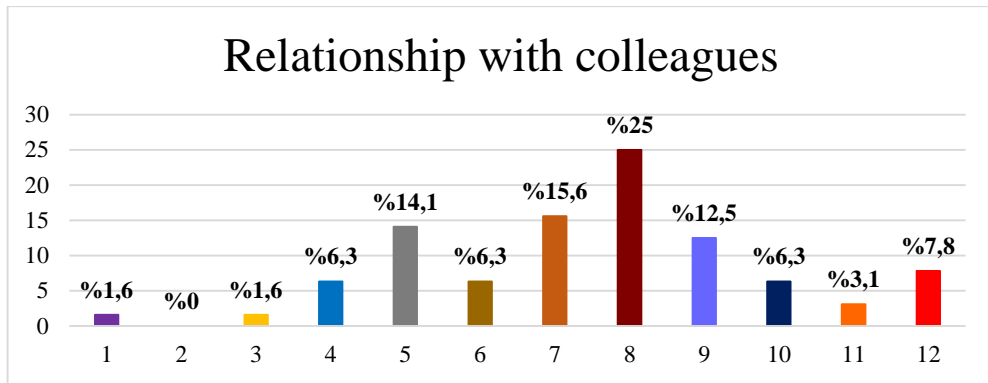


Figure 4.69 Frequency of Responses for Relationship with Colleagues

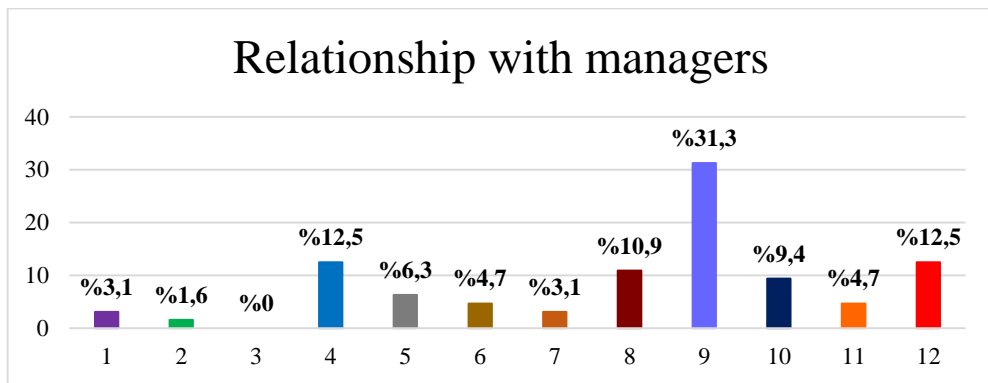


Figure 4.70 Frequency of Responses for Relationship with Managers

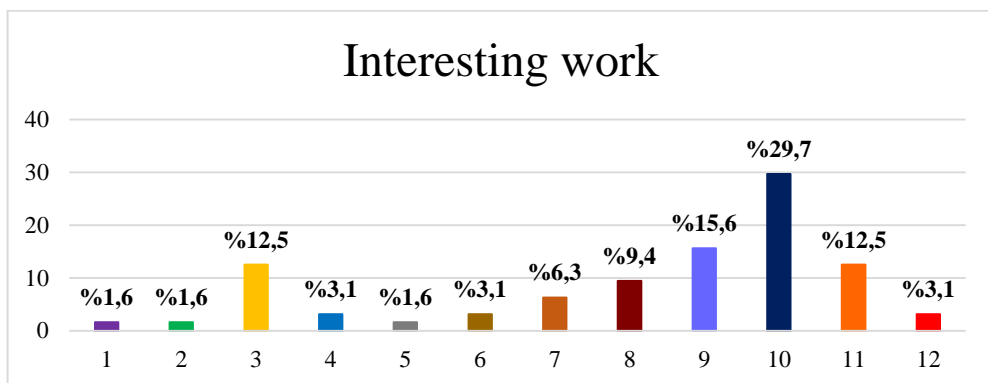


Figure 4.71 Frequency of Responses for Interesting Work

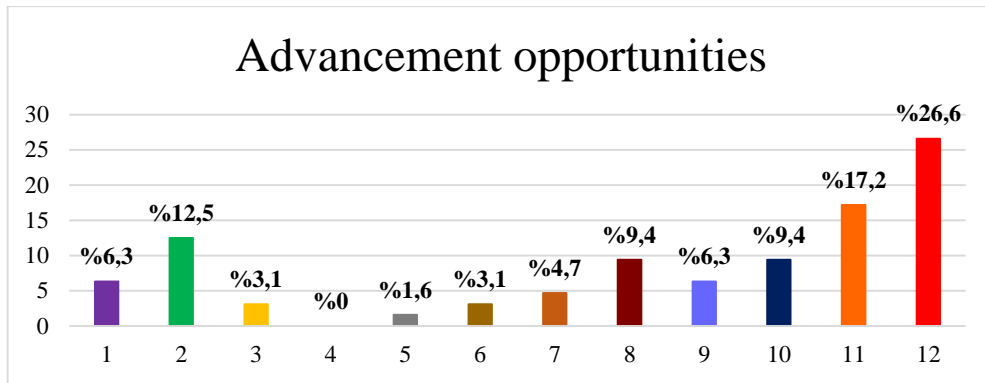


Figure 4.72 Frequency of Responses for Advancement Opportunities

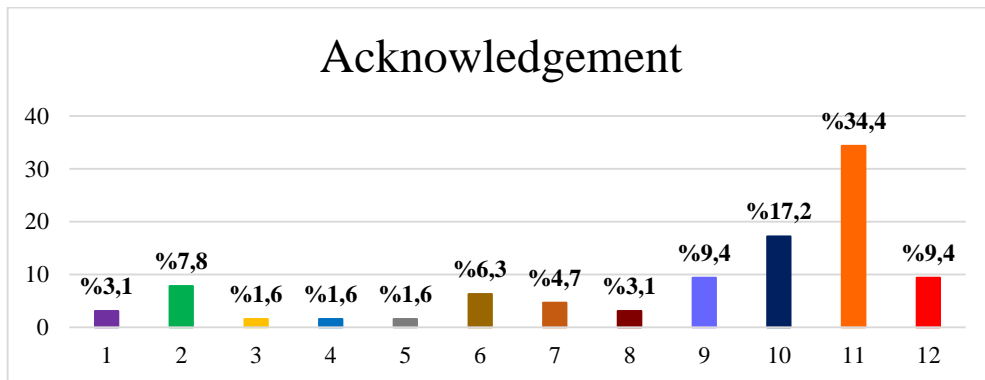


Figure 4.73 Frequency of Responses for Acknowledgement

4.7 Open-Ended Question and the Analysis of the Participants' Responses

At the end of the questionnaire, an open-ended question was asked to seek whether academicians wanted to add any opinions they would like to state related to the scope of the study. Answering this question was optional. This question allowed them to write their opinion freely, and allow them to mention the points/issues that might not be touched upon in the questionnaire.

Because of the qualitative nature of the data collected for this question, content analysis was used to analyze the responses given by the participants (Creswell & Creswell, 2022). Of the 64 respondents, 14 participants (22%) answered this optional question. The answers were examined by two field experts and the following 6 themes were established. These themes are presented in an order of decreasing frequency,

starting with the most frequently stated theme and ending with the least frequently stated theme. Thus, Theme 1 (economic conditions), particularly not being given equal salaries with public universities, was the only theme mentioned by the highest number of participants. Theme 6 (personal rights), on the other hand, was the theme mentioned by the least number of academicians. The themes were further elaborated by topics inferred from the answers of the academicians to this question. In presenting the results, abbreviations were used in which p stands for each participant and a number was attached to it. Therefore, “P1” stands for *Participant 1*. The statements the participants responded to and the frequency of the statements are summarized as follows:

4.7.1 Theme 1: Economic conditions

- Not being given equivalent salaries with public universities (P7, P8, P9, P12, P13, P14)

As was mentioned above, this theme, specifically, the statement about not being offered equal pay with academicians at public universities, indicated the highest agreement of opinion on a single topic by a sizeable number of the respondents (n=6) to the open-ended question by 43%. This shows that the economic conditions theme tops the responses as the only category where almost half of the 14 respondents chose to express their opinions on.

4.7.2 Theme 2: Working conditions

- Having too many class hours to teach (P5, P8)
- Lack of flexible working hours (P9)
- Not providing equal working conditions for everyone (P4)
- The working environment is not clean (P5)
- Online courses reduce motivation (P3)
- High number of students (P11)

The theme “Working Conditions” was the second theme that the 14 participants chose to respond to. Although the number of participants remained the same (n=6) as those in Theme 1, the participants responded to 6 different statements instead of the single statement in Theme 1. The statement “*Having too many class hours to teach*” was chosen by two of the six participants (33%). Each one of the remaining 5

statements, starting with statement 2 above, was mentioned by only a single participant (17%).

4.7.3 Theme 3: Mobbing

- Mobbing (P1)
- Teaching outside the field (P11)
- Disregard for merit in assigned duties (P11)
- Giving administrative duties unsolicited (P11, P12)
- Teaching graduate courses in the evening (P11)
- Not treating employees equally (P10, P11)
- The university does not value the teaching staff (P9, P11)
- Lack of respect for employees (P10)

Five (36%) of the 14 participants responded to 8 different statements on this theme. A look at the frequency of the answers by the respondents shows that P11 was experiencing serious problems regarding mobbing. The participant selected 6 (75%) of the 8 statements, namely, “*Teaching outside the field, Disregard for merit in assigned duties, Giving administrative duties unsolicited, Teaching graduate courses in the evening, Not treating employees equally, The university does not value the teaching staff*”. Another participant, P10, expressed problems s/he was experiencing regarding mobbing by selecting two statements (25%) which are “*Not treating employees equally and Lack of respect for employees*”.

The other respondents, P1, P9, and P12, each responded to 1 (13%) of the 8 statements selected by the participants.

4.7.4 Theme 4: Job security

- Lack of job guarantee (P2, P8)
- Failure to keep promises made (P2)

Two (14%) of the 14 participants chose to respond to two different statements under this theme. Of those, P2 stated concerns regarding all of the two which are “*Lack of job guarantee and Failure to keep promises made*” while P8 only expressed concern for one statement “*Lack of job guarantee*” (50%).

4.7.5 Theme 5: Career progression

- Not counting pre-doctoral publications for associate professorship (P1)
- Not being offered a cadre for advancement at the university (P6)

Career progression was an area in which two (14%) of the 14 participants chose to respond to. Of those, P1 pointed out “*Not counting pre-doctoral publications for associate professorship*” which is 50% of the issues reported under this theme. The other respondent, P6, also expressed concern for one statement “*Not being offered a cadre for advancement at the university*” which forms the remaining 50% of the issues expressed by the participants.

4.7.6 Theme 6: Personal rights

- Lack of academic freedom (P1)

Personal rights is the theme stated by only one (7%) of the 14 participants. That participant was P1 who expressed his concern for the “*Lack of academic freedom*”.

CHAPTER 5

5. DISCUSSION

This chapter will present the discussion of the data analysis reported in the previous chapter about the formulated research questions in terms of Herzberg's Two-Factor Theory.

The first research question explored the hygiene and motivator factors that shape academicians' motivation. According to the results, the most important hygiene factor was "salary and benefits" for the academicians working at foundation universities. The second most important hygiene factor was "freedom during the workday". "Student quality" was the third important factor, and the least important hygiene factor for these academicians was "status".

As for the motivator factors that shape academicians' motivation, "creating results" was the most important factor. The second most important motivation factor was "working towards a better future". The third most important factor was the "possibility for professional growth". The two least important factors were respectively "recognition" and "the knowledge and competence of co-workers". The second research question focused on academicians' job satisfaction. It aimed to determine which hygiene and motivator factors shape their job satisfaction. According to the results, the most important hygiene factor for academicians was "contract terms", followed by "good work conditions" and "salary" as the second and third most important hygiene factors respectively. The two least important hygiene factors turned out to be "relationship with colleagues" and "positive feedback from supervisors".

As for the motivator factors that shape academicians' job satisfaction, the order of importance from first to third was "developing skills and knowledge" followed by "interesting work" and "recognition" respectively.

The third research question investigated the factors that would de-motivate academicians if they were not present in their university. For academicians, the most agreed upon hygiene factor was revealed to be "work conditions", followed by "salary level" and "job security" respectively. By far, the least agreed upon hygiene factor was "status" according to the participant academicians at foundation universities.

As for the motivator factors that would de-motivate academicians with their absence, "developing own capabilities" was the most agreed upon factor, followed by "developing academic skills" and "creating results" as the second and third motivator factors. The least agreed upon motivation factor to de-motivate academicians in their absence was revealed to be "work recognition".

The fourth research question aimed to find out the factors which would inspire the academicians at foundation universities to perform better in their jobs. The top two hygiene factors that inspire them the most were "salary and benefits" followed by "the university's reputation", while the least inspirational hygiene factor from the participant academicians' perspective was "teamwork".

As for the motivator factors that would inspire academicians to perform better, according to the results of this study, respectively the first three motivator factors were revealed to be "developing my academic skills", "specific goal achievements" and "making a difference in my field", and was closely followed by "student success" as the fourth most agreed upon factor. Comparatively lacking behind as the fifth and last motivation factor was found to be "high expectations".

The fifth research question included certain statements, again under the umbrella of Herzberg's hygiene and motivator factors, for academicians to state the perceived relevancy of their job satisfaction at the current university they work at. The first three statements categorized under hygiene factors that were found to be relevant by academicians for their job satisfaction were respectively "social interactions with co-workers", "managing my workday" and "having a safe workplace". "Infrastructural facilities available" was close to the first three statements even though it was in the fourth place. The least relevant statement by far was "today's tangible perks" which included salary, contract terms, and healthcare benefits as examples.

As for the statements that were categorized as motivator factors, “developing my knowledge and skills” was by far the most relevant for academicians about their job satisfaction at their current universities. The following three statements were statistically close to each other, and from second to fourth most relevant they are respectively, “working for a better world”, “developing applications and techniques used in their field” and “receiving recognition for their work”. The least relevant statements for their job satisfaction at their current university were reported to be “having a lot of responsibility in work” and “having many advancement possibilities”.

The sixth research question asked the academicians to rank the given factors in the order of importance for their workplace motivation, aiming to list the factors from the most to the least important. The hygiene factor “salary and benefits” was by far the most important factor among all hygiene and motivator factors given in this question. When looking at the rest of the factors, it can be observed that motivator factors dominate the first and last three important factors in the scale. In addition to the hygiene factor (number 1 “salary and benefits”), the second and third most important factors were “academic development” and “research and development” respectively. According to the academicians, the last three factors in the order of importance were all motivator factors as well, which included “interesting work”, “advancement opportunities” and “acknowledgment” respectively. The middle of the scale (from 4th to 9th) consisted of all hygiene factors except for number 6 “making a difference” as the only motivation factor in this section.

As for the open-ended question, 14 (22%) of the 64 participants chose to answer the question. The content analysis of the data revealed 6 themes. In the order of decreasing frequency of responses by the participants, they were *economic conditions*, *working conditions*, *mobbing*, *job security*, *career progression*, and *personal rights*.

Economic conditions (Theme 1) was the theme mentioned by 6 of the 14 participants (43%). All 6 academicians complained that they were not being given salaries equivalent to the salaries their colleagues at public universities received. *Working conditions* was the second theme that emerged. Although the number of participants remained the same (n=6) as in Theme 1, the participants this time selected 6 different statements instead of the single statement in Theme 1. Of those 6 statements, the statement “*Having too many class hours to teach*” was chosen by two participants (33%). Each one of the remaining 5 statements was mentioned by a single

participant (17%). *Mobbing* was the third theme which 5 participants (36%) highly elaborated using 8 statements. They were *mobbing*, *teaching outside the field*, *disregard for merit in assigned duties*, *giving administrative duties unsolicited*, *teaching graduate courses in the evening*, *not treating employees equally*, *the university does not value the teaching staff*, and *lack of respect for employees*. It became obvious during data analysis that one participant, P11, reported experiencing problems in six areas which were *teaching outside the field*, *disregard for merit in assigned duties*, *giving administrative duties unsolicited*, *teaching graduate courses in the evening*, *not treating employees equally*, and *the university does not value the teaching staff*. Another participant who complained about the problem more than the other participants was P10 who mentioned two areas, *not treating employees equally* and *lack of respect for employees*, to show that the problem was multi-faceted at the workplace as was the case for P11.

Job security was the fourth theme emerged in the analysis. Two statements were used by two (14%) of the 14 participants to report the dimensions of the problems experienced. They were *lack of job guarantee* and *failure to keep promises made*. One participant, P2, used both statements to depict the problem. The other participant, P8, used one statement to underline the importance of the problem. *Career progression* was the fifth theme that emerged in the analysis. It was mentioned by two (14%) of the 14 respondents, each of whom used one of the two statements, i.e., *not counting pre-doctoral publications for associate professorship* and *not being offered a cadre for advancement at the university* to explain the issues that appeared as impediments in their careers. The final theme was *personal rights* which was mentioned by one participant (7%) only. That academician reported *lack of academic freedom* as the hurdle that caused problems in terms of personal rights.

Certain similarities and some differences can be observed between academicians and knowledge workers in other workplaces when looking at the previous studies on knowledge workers' motivation and job satisfaction. For example, Batra (2022), Buckingham & Coffman (2005), and Carleton (2011) state that knowledge workers do not like supervision. Similarly, the results of this study show that the hygiene factor "positive feedback from supervisors" was among the least important factor for the academicians. Mladkova et al. (2015) identify "achievement of objectives, satisfaction, character of work and freedom" as the ways to motivate knowledge workers. Likewise, Petronio & Colanico (2008) mention "continuing

education, retraining, sabbatical leaves, rotation programs” among the best strategies to motivate knowledge workers. Frick (2010) also found out that “ meaningful work, belief in the mission, public service, the opportunity to advance” were among the most important positive factors that motivate knowledge works from multiple sectors he investigated. The findings of this study support these factors mentioned in the studies above because “developing academic skills, specific goal achievements and making a difference in the field” were chosen as motivator factors that would inspire the academicians to perform better.

In most of the previous studies, “pay/salary” did not emerge as the most important factor for knowledge workers’ motivation and job satisfaction except for Olomolaiye & Egbu (2004), who point to “pay” as the most important factor. The study by Petronio & Colanico (2008) also mentions “economic incentives”, but as a factor listed after the factors such as “continuing education and retraining and awards”. However, the analysis of the data in this study revealed that the most important hygiene factor for the academicians working at foundation universities was “salary and benefits”. The open-ended question answers support this result because “economic conditions” was the most mentioned theme by the academicians working at foundation universities in Türkiye. They complained about inequivalent salaries between foundation and public universities.

When looking at the previous studies on knowledge workers in other sectors in Türkiye, “pay/salary” was not the most important factor as observed by Akgün & Yaman (2020), who found that the most motivating factor for the knowledge workers in the construction sector in Türkiye was the “quality of the results they achieved in their work”. Other motivating factors they identified were “the quality of their interaction with colleagues and managers, and independence while working on a task”. The previous studies on knowledge workers in workplaces of motor vehicles (Metek & Belgin, 2022) found significant differences in knowledge creation, knowledge worker productivity, knowledge culture, and information system infrastructure.

The studies on the motivation and job satisfaction of knowledge workers in Türkiye (Bozbura, 2007; İpçioğlu & Çelik, 2008; Erdil & Erbyık, 2020) mention a common problem, which is the inefficient management practices of knowledge workers in Türkiye. These studies emphasize that most knowledge workers do not favor sharing knowledge even within the same company, and have the fear of losing control of knowledge. In addition, it is stated in those studies that the majority of

companies in Türkiye do not have knowledge management programs and the necessary infrastructure for systematic and effective management of knowledge and knowledge workers.

When looking at the studies on academicians in other countries, a similarity can be observed between them and the academicians in Türkiye, that is, “salary/pay”. For example, after conducting a detailed review of relevant literature, Naveena (2019) mentioned “salary, students’ feedback, promotion, job security” as important factors for academicians’ job satisfaction. Likewise, Moloantova & Dorasamy (2017) also highlighted “salaries” as a factor influencing the job satisfaction of academicians working for universities in Ukraine. Another support comes from Stankovska et al. (2017), who investigated academicians in Macedonia and showed that “pay and promotion” were among the major determinants of job satisfaction for the academicians they examined. Stankovska et al. added that the academicians were dissatisfied with fringe benefits and contingent rewards.

Furthermore, for the academicians at foundation universities in Türkiye investigated in this study, factors such as “creating results, working towards a better future, professional growth, specific goal achievements in the job, individual research, developing academic skills and making a difference in their field” were quite important for their motivation. This overlaps with the results of previous studies (Hill, 1986; Lacy & Sheehan, 1997; Leung, Siu & Spector, 2000; Chauhan et al. 2017).

The previous studies on academicians in Türkiye have produced mixed results, which led the researcher in this research study to examine the academicians’ motivation and job satisfaction in Türkiye. For example, Baş & Ardıç (2002) state that the job satisfaction of academicians working for private universities was higher in many respects than that of academicians working for state universities. They identified the sources of differences as mainly in academic environments, the behavior of superiors, the behavior of co-workers, the job itself, teaching and research, and current pay. The reason behind the higher level of motivation and job satisfaction of academicians at private universities in Türkiye may be related to the time of the study by Baş & Ardıç. The “pay, working conditions, etc.” may be better in private universities in 2002 when compared to state universities at that time. This shows again that it is necessary to conduct more studies investigating the current situation for the academicians in Türkiye. Toker (2011), specifically displayed that the demographic characteristics of the academicians in Türkiye did not affect the level of their

motivation and satisfaction, while Yoleri & Bostancı (2012) found that academicians' job satisfaction was inversely correlated with emotional exhaustion.

Furthermore, the findings obtained in this study determined that Herzberg's Two-Factor Theory on knowledge workers (which Herzberg built upon researching 203 knowledge workers) is also valid for the academics in Türkiye, who are also knowledge workers.

When the results of this study were examined within the framework of the Two-Factor Theory, it became clear that it was important to understand the key concepts of the theory and how they were related to the responses in the questionnaire. This meant understanding what the Two-Factors (hygiene factors and motivator factors) stood for and understanding the descriptions and examples of these two types of factors.

As known by now, hygiene factors are mainly extrinsic factors, and they are generally associated with the work environment and organizational context and not directly related to the work itself. They are necessary to prevent dissatisfaction. However, they do not necessarily result in long-term motivation and job satisfaction. According to Herzberg, the absence or dissatisfaction with hygiene factors may result in job dissatisfaction, but they do not necessarily lead to increased motivation.

Some important hygiene factors examples include salary and benefits which refer to fair and competitive compensation packages, working conditions which include factors such as safety, comfort, and physical environment, company policies which should consist of fair and consistent policies and procedures, interpersonal relationships such as positive relationships with supervisors and colleague, job security which is one's feeling secure in his position and career prospects, etc.

Motivator factors are mainly intrinsic and they are directly related to the work itself. They are also capable of creating positive job satisfaction and motivation. According to Herzberg, the presence of these motivators can lead to job satisfaction and increased motivation.

Some important examples of motivator factors include Achievement (the opportunity to accomplish meaningful and challenging work), Recognition (acknowledgment, appreciation, and praise for a job well done), Responsibility (having autonomy and decision-making authority in performing tasks), Advancement (opportunities for career growth and promotion), Personal and professional growth

(the chance to learn new skills and develop professionally), Work itself (the intrinsic satisfaction derived from the work itself), etc.

Herzberg argued that motivators and hygiene factors operate independently of each other. To achieve employee motivation and satisfaction, organizations should provide both hygiene factors adequate to avoid dissatisfaction and opportunities for motivators to increase knowledge workers' job satisfaction and motivation.

It is important to note that Herzberg's Two-Factor Theory has faced criticism and has been subject to further research and refinement over the years. Nonetheless, it remains a notable contribution to understanding employee motivation and job satisfaction. This contribution of the Theory was confirmed by this study. When looking at the findings in the first four questions of the questionnaire (where the importance of both the hygiene and motivator factors for their workplace motivation, job satisfaction, the factors that would de-motivate if not present, and the factors that would inspire them to improve their work performance were asked), the mean values and percentages showed that almost all factors were very important and significant. In other words, in the first three questions where a 5 point-Likert scale (with 5 being the most important) was used, all the factors' mean values were diagnosed to be 4 and higher, except for the factor "status" with a mean value of 3,92 for the first question and 3,94 for the third question. For the fourth question where a 4-point scale was conducted (with 4 being the most important). The mean values of all the factors that were presented to academicians in the light of the Two-Factor Theory in the questionnaire were 3,50 and higher, except one hygiene factor being "teamwork" with a mean value of 3,17 and one motivation factor being "high expectations" with a mean value of 3,14. These results prove that even the least important factors observed are still very important for the participant academicians at Turkish foundation universities, considering the scale was a 4-point scale.

As for the 5th research question where academicians were asked to state the relevancy of the given statements for their job at their current universities, many diverse and scattered answers varying from "strongly disagree" to "strongly agree" for these statements can be seen in this question. These results differ from what is seen in the first four questions (see findings above) where all answers were mostly grouped in "important and very important". This means that even though the academicians agreed that almost all of Herzberg's hygiene and motivator factors presented to them were significant for their job satisfaction and motivation, not all academicians were able to

state that they were experiencing these factors to a satisfactory level at their current universities.

Finally, it can be stated that the participant academicians as knowledge workers at Turkish foundation universities displayed responses highly aligning with Herzberg's Two-Factor Theory. Looking at the hygiene and motivator factors for each question in terms of the order of mean and standard deviation values of their responses, it is clear that all factors were found highly important for them.

Although all the factors in Herzberg's theory were found to be highly important by the academicians, their responses showed that the most important hygiene factors were construed and mainly grouped under Pay, Working Conditions, and Administration/Supervision whereas the most important motivator factors for them were construed and mainly grouped under Growth, The Work Itself and Autonomy.

For the hygiene factors, Pay included factors such as "salary", "benefits", "today's salary level" and "theme 1: economic conditions" etc. Working Conditions included factors such as "good work conditions", "work environment", "infrastructural facilities available", "contract terms", "job security", "theme 2: working conditions" and "theme 4: job security" etc. Administration/Supervision (which can be detailed as company policies, admin practices and relations) included factors such as "positive feedback from supervisors", "recognition", "university's reputation" and "theme 3: mobbing" etc.

For the motivator factors, Growth included factors such as "developing academic skills", "developing skills and knowledge", "developing own capabilities", "possibility for professional growth", "achievement in job", "contributing to research and development", "specific goal achievements" and "theme 5: career progression" etc. The Work Itself (which can be detailed as meaningful, challenging and stimulating work) included factors such as "interesting work", "making a difference", "working towards a better future", "student success", "making a difference in their field" and "creating results" etc. Autonomy included factors such as "freedom during the workday", "individual research", "flexible hours" and "theme 6: personal rights" etc.

The academicians found some statements in Question 5 irrelevant for their current universities. In other words, they reported that the hygiene factors they did not receive at the satisfactory level were respectively being "today's tangible perks", "infrastructural facilities available" and "having a safe workplace". These academicians were not also pleased with the motivator factors respectively being

“having advancement possibilities”, “having a lot of responsibility in my job” and “receiving recognition for my work” because they found the statements including these factors irrelevant to their current universities. These results indicate that the academicians investigated in this study were not satisfied with the hygiene and motivator factors mentioned above.

CHAPTER 6

6. CONCLUSION

This study was launched to examine the factors influencing the motivation and job satisfaction of academicians as knowledge workers and to provide helpful recommendations and insights for better and more successful management of academicians at foundation universities as an economy-based business organization. By analyzing the applicability of the Two-Factor Theory in the context of foundation universities in Türkiye, this study seeks to make a research-based contribution to the existing knowledge in the relevant professional literature and provide practical recommendations for fostering a more motivating and satisfying work environment for the academicians. In the study, a Questionnaire (see Appendix 1) was conducted, where the academicians stated and ranked the perceived importance of both Herzberg's hygiene and motivator factors, the relevancy of these factors to their current job at their university and asked for any additions they saw important for their job satisfaction and motivation as an academic.

The findings in this study confirmed Herzberg's Two-Factor Theory on knowledge workers for the academics at foundation universities in Türkiye, who are also knowledge workers.

Furthermore, the academicians in this study stated that the factors they found important were not relevant to them at their current universities. In other words, they could not experience the factors they found important in their current jobs at foundation universities. In addition, considering the open-ended question, 14 out of 64 respondents (i.e. 1 out of every 5 academicians investigated) were passionate enough to express their unmatched expectations about their motivation and job satisfaction, even though the question was an online survey and it was optional to answer. It can be

concluded as this is an important finding needed to be addressed especially by the managers of the foundation universities.

By presenting these findings, it is hoped to offer insights for managers to look into in order to increase their awareness, knowledge, care, expertise, competence, and practices when dealing with the management of their academic staff. Therefore, we humbly believe that this study would contribute to more successful and established educational organizations and academia where future knowledge workers are cultivated in many areas so that it helps to improve the knowledge-based economy in Türkiye.

6.1 Limitations

This study focused on the motivation and job satisfaction of academicians working at foundation higher education institutions in Türkiye. Like all studies, it also has limitations. One limitation is the number of participants. Even though the number of participant academicians is representative (64 in total), a larger sample size would be better for reaching conclusions based on the results. Because of the small sample size, the study may be limited in terms of the generalizability of the data.

Another limitation is the type of data collected. In the present study, quantitative data were collected in addition to a small amount of qualitative data. In addition, the online questionnaire used in the study may also be considered as a limitation because using online surveys may have advantages as well as disadvantages as explained in the methodology section in detail.

6.2 Suggestions for Further Research

The present study provided important findings and helped to better understand the factors for the motivation and job satisfaction of academicians at foundation universities in Türkiye. However, future studies must be undertaken to gain a much better perspective on the issue. Possible further research ideas are listed below:

1. The effects geographical differences (e.g. big cities vs rural areas etc.) on the motivation and job satisfaction of academicians may be studied in detail.
2. A study that examines the effects of the demographic characteristics of academicians such as gender, age, work experience academic title, and marital status would be beneficial to establish the profile of academicians in Türkiye.

3. A study that focuses on the comparison of the factors that lead to the motivation and job satisfaction of academicians working at public and foundation universities in Türkiye would be beneficial.
4. Longitudinal studies should be conducted to have a more insightful and deeper perspective on how and whether motivation and hygiene factors change over time for academicians.
5. A study with more academicians as knowledge workers would allow for more reliable generalizations of the collected data.
6. A study that compares academicians and managers of the universities should be conducted to detect the matching and non-aligning points between their understanding and preferences about motivation and job satisfaction factors.
7. Studies on the factors that motivate academicians and lead to job satisfaction should be conducted by collecting more qualitative data from the academicians through in-depth interviews or focus-group meetings for detailed investigation in addition to quantitative data.
8. Further studies to test the relevancy of other theories of motivation such as content and process theories should be conducted to determine their explanatory power regarding academicians' motivation and job satisfaction.
9. More studies can be conducted to focus on developing efficient programs of motivation for the managers to apply to their academic staff at foundation universities in Türkiye, which can be a model for similar higher educational institutions in other countries.

Hopefully, more future studies in addition to the present study will contribute to the knowledge-based economy in Türkiye and other countries, by improving the motivation and job satisfaction of the academicians as knowledge workers, who work at foundation universities as the centers of knowledge and innovation and as important business organizations in educational sector.

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APPENDIX 1

Questionnaire



Akademisyenlerde Motivasyon ve İş Doyumu

Sayın Katılımcılar,

Işık Üniversitesi, Yöneticiler için İşletme Yönetimi (İngilizce) tezli yüksek lisans öğrencisiyim. Tezimin amacı, vakıf üniversitelerinde görev yapan akademisyenlerin iş doyumunu ve motivasyonunu etkileyen faktörleri araştırmaktır. Bu anket, tezimde kullanılacak veri toplama araçlarından biridir.

Anonim olan bu ankette vereceğiniz tüm bilgiler gizli tutulacak ve sadece araştırma amacıyla kullanılacaktır.

Cevaplamak, yaklaşık 5-8 dakikanızı alacaktır ve bitirmeden önce bütün sorular cevaplanmalıdır.

Bu anketi cevaplamak için zaman ayırdığınız için teşekkür ederim.

Herhangi bir sorunuz olursa veya çalışma ile ilgili daha fazla bilgi edinmek isterseniz, aşağıda verilen e-posta adresinden iletişime geçebilirsiniz.

Mert Safa Tezel

Danışman: Doç. Dr. Aslı Tuncay Çelikel

Demografik Sorular

Lütfen bu bölümdeki ifadeleri size uygun seçeneği işaretleyerek cevaplayınız.

Lütfen cinsiyetinizi belirtiniz.

- Kadın
 Erkek

Lütfen yaşınızı belirtiniz.

- 21-30
 31-40
 41-50
 51 ve üstü

Lütfen şu anda sahip olduğunuz en yüksek eğitim derecenizi belirtiniz.

- Lisans
 Yüksek Lisans
 Doktora

Lütfen akademik unvanınızı belirtiniz.

- Profesör
 Doçent
 Doktor Öğretim Üyesi
 Öğretim Görevlisi
 Araştırma Görevlisi
 Diğer

Bulduğunuz üniversitede kaç yıldır çalışmaktasınız?

- 0-5 yıl
 6-15 yıl
 16-25 yıl
 25 yıl ve üzeri

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Benim iş motivasyonum için en önemli faktörler aşağıdakilerdir:

Lütfen aşağıdaki maddelerde verilen faktörlerin iş motivasyonunuz için olan önemini, size en uygun seçeneği işaretleyerek belirtiniz.

Mesleğimde başarı

- Hiç Önemli Değil
 Önemli Değil
 Fark Etmez
 Önemli
 Çok Önemli

Takdir edilme

- Hiç Önemli Değil
 Önemli Değil
 Fark Etmez
 Önemli
 Çok Önemli

İşin kendisi

- Hiç Önemli Değil
 Önemli Değil
 Fark Etmez
 Önemli
 Çok Önemli

Sorumluluk sahibi olduğum alanlar

- Hiç Önemli Değil
 Önemli Değil
 Fark Etmez
 Önemli
 Çok Önemli

İlerleme

- Hiç Önemli Değil
- Önemli Değil
- Fark Etmez
- Önemli
- Çok Önemli

Mesleki gelişme olasılıkları

- Hiç Önemli Değil
- Önemli Değil
- Fark Etmez
- Önemli
- Çok Önemli

Pozisyon/Statü

- Hiç Önemli Değil
- Önemli Değil
- Fark Etmez
- Önemli
- Çok Önemli

Araştırma ve geliştirmeye katkıda bulunma

- Hiç Önemli Değil
- Önemli Değil
- Fark Etmez
- Önemli
- Çok Önemli

Yeni uygulamalar ve teknikler geliştirme

- Hiç Önemli Değil
- Önemli Değil
- Fark Etmez
- Önemli
- Çok Önemli

Bireysel araştırma

- Hiç Önemli Değil
- Önemli Değil
- Fark Etmez
- Önemli
- Çok Önemli

Daha iyi bir gelecek için çalışma

- Hiç Önemli Değil
- Önemli Değil
- Fark Etmez
- Önemli
- Çok Önemli

Maaş ve diğer haklar

- Hiç Önemli Değil
- Önemli Değil
- Fark Etmez
- Önemli
- Çok Önemli

Öğrenci kalitesi

- Hiç Önemli Değil
- Önemli Değil
- Fark Etmez
- Önemli
- Çok Önemli

Mesai saatlerim boyunca bağımsız hareket edebilme

- Hiç Önemli Değil
- Önemli Değil
- Fark Etmez
- Önemli
- Çok Önemli

Sonuçlar üretmek

- Hiç Önemli Değil
- Önemli Değil
- Fark Etmez
- Önemli
- Çok Önemli

İş arkadaşlarımdan mesleki bilgisi ve yeterliliği

- Hiç Önemli Değil
- Önemli Değil
- Fark Etmez
- Önemli
- Çok Önemli

Çalışma düzenimi kendim belirleyebilmek

- Hiç Önemli Değil
- Önemli Değil
- Fark Etmez
- Önemli
- Çok Önemli

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Aşağıdaki faktörler benim iş doyumum için önemlidir:

Lütfen aşağıdaki maddelerde verilen faktörlerin iş doyumunuz için olan önemini, size en uygun seçeneği işaretleyerek belirtiniz.

Maaş

- Hiç Önemli Değil
 Önemli Değil
 Fark Etmez
 Önemli
 Çok Önemli

İş güvenliği

- Hiç Önemli Değil
 Önemli Değil
 Fark Etmez
 Önemli
 Çok Önemli

İyi çalışma koşulları

- Hiç Önemli Değil
 Önemli Değil
 Fark Etmez
 Önemli
 Çok Önemli

Meslektaşlarla ilişkiler

- Hiç Önemli Değil
 Önemli Değil
 Fark Etmez
 Önemli
 Çok Önemli

İşimde özellikle ilgimi çeken çalışma ve görevlerin varlığı

- Hiç Önemli Değil
- Önemli Değil
- Fark Etmez
- Önemli
- Çok Önemli

Beceri ve bilgimi geliştirme

- Hiç Önemli Değil
- Önemli Değil
- Fark Etmez
- Önemli
- Çok Önemli

Altyapı ve donanıma erişilebilirlik

- Hiç Önemli Değil
- Önemli Değil
- Fark Etmez
- Önemli
- Çok Önemli

Sözleşme şartları

- Hiç Önemli Değil
- Önemli Değil
- Fark Etmez
- Önemli
- Çok Önemli

Esnek çalışma saatleri

- Hiç Önemli Değil
- Önemli Değil
- Fark Etmez
- Önemli
- Çok Önemli

İş yerinin fiziki şartları

- Hiç Önemli Değil
- Önemli Değil
- Fark Etmez
- Önemli
- Çok Önemli

Yöneticilerden olumlu geribildirimler alma

- Hiç Önemli Değil
- Önemli Değil
- Fark Etmez
- Önemli
- Çok Önemli

Takdir edilme

- Hiç Önemli Değil
- Önemli Değil
- Fark Etmez
- Önemli
- Çok Önemli

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Aşağıdaki faktörler yoksa, benim motivasyonum düşer:

Lütfen aşağıda sıralanan faktörlerin var olmaması durumunda, motivasyonunuzun ne ölçüde olumsuz etkileneceğini, size en uygun seçeneği işaretleyerek belirtiniz.

Mevcut maaşım

- Kesinlikle Katılmıyorum
- Katılmıyorum
- Fark Etmez
- Katılıyorum
- Kesinlikle Katılıyorum

Esnek çalışma saatleri

- Kesinlikle Katılmıyorum
- Katılmıyorum
- Fark Etmez
- Katılıyorum
- Kesinlikle Katılıyorum

Yapılan işin takdir edilmesi

- Kesinlikle Katılmıyorum
- Katılmıyorum
- Fark Etmez
- Katılıyorum
- Kesinlikle Katılıyorum

Pozisyon/Statü

- Kesinlikle Katılmıyorum
- Katılmıyorum
- Fark Etmez
- Katılıyorum
- Kesinlikle Katılıyorum

İş güvenliği

- Kesinlikle Katılmıyorum
- Katılmıyorum
- Fark Etmez
- Katılıyorum
- Kesinlikle Katılıyorum

Çalışma koşulları

- Kesinlikle Katılmıyorum
- Katılmıyorum
- Fark Etmez
- Katılıyorum
- Kesinlikle Katılıyorum

Fark yaratabilmek

- Kesinlikle Katılmıyorum
- Katılmıyorum
- Fark Etmez
- Katılıyorum
- Kesinlikle Katılıyorum

Akademik becerilerimi geliştirme

- Kesinlikle Katılmıyorum
- Katılmıyorum
- Fark Etmez
- Katılıyorum
- Kesinlikle Katılıyorum

Çalışma ortamı (ofis alanı, altyapı, donanım, vs.)

- Kesinlikle Katılmıyorum
- Katılmıyorum
- Fark Etmez
- Katılıyorum
- Kesinlikle Katılıyorum

Sonuçlar üretmek

- Kesinlikle Katılmıyorum
- Katılmıyorum
- Fark Etmez
- Katılıyorum
- Kesinlikle Katılıyorum

Kişisel yetkinliklerimi geliştirme

- Kesinlikle Katılmıyorum
- Katılmıyorum
- Fark Etmez
- Katılıyorum
- Kesinlikle Katılıyorum

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Aşağıdaki faktörler beni işimi daha iyi yapmaya teşvik eder:

Lütfen aşağıda sıralanan faktörlerin var olmasının, sizi işinizde ne ölçüde daha iyi performans göstermeye teşvik edeceğini, size en uygun seçeneği işaretleyerek belirtiniz.

Akademik becerilerimi geliştirme

- Hiç Teşvik Etmez
- Teşvik Etmez
- Biraz Teşvik Eder
- Çok Teşvik Eder

Belirlenen hedeflerde başarıya ulaşma

- Hiç Teşvik Etmez
- Teşvik Etmez
- Biraz Teşvik Eder
- Çok Teşvik Eder

Yüksek beklentiler

- Hiç Teşvik Etmez
- Teşvik Etmez
- Biraz Teşvik Eder
- Çok Teşvik Eder

Yöneticilerden olumlu geribildirimler alma

- Hiç Teşvik Etmez
- Teşvik Etmez
- Biraz Teşvik Eder
- Çok Teşvik Eder

Takım çalışması

- Hiç Teşvik Etmez
- Teşvik Etmez
- Biraz Teşvik Eder
- Çok Teşvik Eder

Çalışma ortamım (ofis alanı, öğle yemeği seçenekleri, iş arkadaşları vs.)

- Hiç Teşvik Etmez
- Teşvik Etmez
- Biraz Teşvik Eder
- Çok Teşvik Eder

Alanımda bir fark yaratma

- Hiç Teşvik Etmez
- Teşvik Etmez
- Biraz Teşvik Eder
- Çok Teşvik Eder

Maaş ve diğer haklar

- Hiç Teşvik Etmez
- Teşvik Etmez
- Biraz Teşvik Eder
- Çok Teşvik Eder

Üniversitenin saygınlığı

- Hiç Teşvik Etmez
- Teşvik Etmez
- Biraz Teşvik Eder
- Çok Teşvik Eder

Öğrenci başarısı

- Hiç Teşvik Etmez
- Teşvik Etmez
- Biraz Teşvik Eder
- Çok Teşvik Eder

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Aşağıdaki ifadeler şu an çalıştığım üniversitede benim için geçerlidir:

Lütfen aşağıdaki ifadelerin halen çalıştığınız üniversitede sizin açınızdan ne kadar geçerli olduğunu, sizce en uygun seçeneği işaretleyerek belirtiniz.

Daha iyi bir dünya için çalıştığımı bilmekten çok memnuniyet duyuyorum.

- Kesinlikle Katılmıyorum
- Katılmıyorum
- Kararsızım
- Katılıyorum
- Kesinlikle Katılıyorum

Kendi bilgi ve becerilerimi geliştirmekten çok memnuniyet duyuyorum.

- Kesinlikle Katılmıyorum
- Katılmıyorum
- Kararsızım
- Katılıyorum
- Kesinlikle Katılıyorum

Yaptığım iş için takdir edilmekten çok memnuniyet duyuyorum.

- Kesinlikle Katılmıyorum
- Katılmıyorum
- Kararsızım
- Katılıyorum
- Kesinlikle Katılıyorum

Güvenli bir iş yerinde çalışmaktan çok memnuniyet duyuyorum.

- Kesinlikle Katılmıyorum
- Katılmıyorum
- Kararsızım
- Katılıyorum
- Kesinlikle Katılıyorum

Alanımda kullanılacak yeni uygulama ve teknikler geliřtirmekten çok memnuniyet duyuyorum. .

- Kesinlikle Katılmıyorum
- Katılmıyorum
- Kararsızım
- Katılıyorum
- Kesinlikle Katılıyorum

İřimde önemli sorumluluklarımın olmasından çok memnuniyet duyuyorum.

- Kesinlikle Katılmıyorum
- Katılmıyorum
- Kararsızım
- Katılıyorum
- Kesinlikle Katılıyorum

Çalıřma günümü kendim yönetmekten çok memnuniyet duyuyorum.

- Kesinlikle Katılmıyorum
- Katılmıyorum
- Kararsızım
- Katılıyorum
- Kesinlikle Katılıyorum

Sunulan maddi imkanlardan çok memnuniyet duyuyorum (maař, emeklilik planı, saęlık sigortası, vs.).

- Kesinlikle Katılmıyorum
- Katılmıyorum
- Kararsızım
- Katılıyorum
- Kesinlikle Katılıyorum

Mevcut altyapı ve donanımın erişilebilirliğinden çok memnuniyet duyuyorum.

- Kesinlikle Katılmıyorum
- Katılmıyorum
- Kararsızım
- Katılıyorum
- Kesinlikle Katılıyorum

Birçok yükselme olanağına sahip olduğumu bilmekten çok memnuniyet duyuyorum.

- Kesinlikle Katılmıyorum
- Katılmıyorum
- Kararsızım
- Katılıyorum
- Kesinlikle Katılıyorum

İş arkadaşlarımla olan sosyal ilişkilerimden çok memnuniyet duyuyorum.

- Kesinlikle Katılmıyorum
- Katılmıyorum
- Kararsızım
- Katılıyorum
- Kesinlikle Katılıyorum

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Aşağıdaki soruda üniversitenizdeki işinizle ilgili 12 faktör bulunmaktadır. Önem sıralamasına göre, her bir faktöre 1-12 arası skala üzerinden numara vererek işaretleyiniz.

Üniversitenizdeki işinizle ilgili aşağıdaki faktörleri önem derecesine göre 1-12 arası skala üzerinden değerlendiriniz. Sizin için, **1 numara en önemli faktör, 12 numara ise en önemsiz faktör** olacaktır.

Sağlıklı bir önem sıralaması oluşturmak adına, her numarayı her madde için sadece bir kere kullanınız.

(Skala üzerindeki 1'den 12'ye kadar olan bütün numaralara erişmek için skalanın bulunduğu ekranı sola doğru kaydırınız.)

(1 En Önemli.....12 En Önemsiz)

	1	2	3	4	5	6	7	8	9
Maaş ve ek gelirler	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
İş güvenliği	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Araştırma ve geliştirme	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Akademik gelişim	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fark yaratabilme	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
İyi çalışma koşulları (ofis alanı, öğle yemeği, vs.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Araştırmalarım için gerekli olan altyapı ve donanımlar	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Meslektaşlar ile ilişkiler	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yöneticiler ile ilişkiler	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
İşimde özellikle ilgimi çeken çalışma ve görevlerin varlığı	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Takdir edilme	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yükselme olanakları	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Açık uçlu soru

Aşağıdaki soru, sizin bu konu hakkında başka belirtmek istedikleriniz var ise paylaşmanız için sorulmuştur. Bu soruya cevap vermek isteğe bağlıdır.

Akademisyenlerin motivasyonu ve iş doyumu hakkında başka belirtmek veya eklemek istediğiniz var ise, lütfen aşağıya yazınız.

Yanıtınız

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Google Formlar

APPENDIX 2

Questionnaire in English

The original questionnaire was administered in Turkish language as shown in Appendix 1. Below, the questionnaire has been translated into English language for informative purposes.

1) Demographic Questions

Please answer the statements in this section by ticking the appropriate option.

-Please indicate your gender.

- Female
- Male

-Please indicate your age.

- 21-30
- 31-40
- 41-50
- 51 and over

-Please indicate your current highest education degree.

- Bachelor's degree
- Master's degree
- PhD

-Please indicate your academic title.

- Professor
- Associate Professor
- Assistant Professor
- Lecturer
- Research Assistant
- Other

-How long have you been working at your university?

- 0-5 years
- 6-15 years
- 16-25 years
- 25 years and over

2) The most important factors for my work motivation are the following:

Please indicate the importance of the factors given in the following items for your work motivation, by ticking the most appropriate option.

(5-point Likert Scale: Completely Unimportant, Relatively Unimportant, Do Not Apply, Relatively Important, Very Important)

- **Achievement in my job**
- **Recognition**
- **The work itself**
- **Areas of my responsibility**
- **Advancement**
- **Possibility for professional growth**
- **Status**
- **Contributing to research and development**
- **Developing new applications and techniques**
- **Individual research**
- **Working towards a better future**
- **Salary and benefits**
- **Student quality**
- **Freedom during my workday**
- **Creating results**
- **Knowledge and competence of my co-workers**
- **Autonomy**

3) The following factors are important f my job satisfaction:

Please indicate the importance of the factors given in the following items for your job satisfaction by ticking the most appropriate option.

(5-point Likert Scale: Completely Unimportant, Relatively Unimportant, Do Not Apply, Relatively Important, Very Important)

- **Salary**
- **Job security**
- **Good working conditions**
- **Relationship with colleagues**
- **Interesting work**
- **Developing my skills and knowledge**
- **Infrastructural accessibility**
- **Contract terms**
- **Flexible working hours**
- **Physical office environment**
- **Receiving positive feedback from supervisors**
- **Recognition**

4) The following factors de-motivate me if not present:

Please indicate to what extent your motivation will be adversely affected if the factors listed below are not present, by ticking the most appropriate option.

(5-point Likert Scale: Strongly Disagree, Disagree, Indifferent, Agree, Strongly Agree)

- **Current salary level**
- **Flexible working hours**
- **Work recognition**
- **Status**
- **Job security**
- **Work conditions**
- **Making a difference**
- **Developing my academic skills**
- **Work environment (office space, infrastructural equipment, etc.)**
- **Creating results**
- **Developing my own capabilities**

5) The following factors inspire me to perform my job better:

Please indicate to what extent the presence of the following factors will inspire you to perform better in your job, by ticking the most appropriate option.

(4-point Likert Scale: Do Not Inspire at All, Irrelevant, Somewhat Inspiring, Very Inspiring)

- **Developing my academic skills**
- **Reaching specific goal achievements**
- **High expectations**
- **Receiving positive feedback from supervisor**
- **Team-work**
- **My work environment (office space, lunch options, colleagues, etc.)**
- **Making a difference in my field**
- **Salary and benefits**
- **University's reputation**
- **Student success**

6) The following statements are relevant to me at my current university.

Please indicate how valid the following statements are for you at your current university, by ticking the most appropriate option in your opinion.

(5-point Likert Scale: Strongly Disagree, Disagree, Indifferent, Agree, Strongly Agree)

- **I receive great satisfaction in knowing that I am working for a better world.**
- **I receive great satisfaction in developing my own knowledge and skills.**
- **I receive great satisfaction in receiving recognition for my work.**
- **I receive great satisfaction in having a safe workplace.**
- **I receive great satisfaction in developing applications and techniques which is used in my field.**
- **I receive great satisfaction in having a lot of responsibility in my job.**
- **I receive great satisfaction in managing my own workday.**
- **I receive great satisfaction in today's tangible perks (salary, contract terms, health benefits, etc.).**
- **I receive great satisfaction in the infrastructural facilities available.**

- I receive great satisfaction in knowing that I have many advancement possibilities.
- I receive great satisfaction in having social interactions with my co-workers.

7) The question below has 12 factors related to your job at your university. In order of importance for your motivation in your work, mark each factor by numbering it on a scale of 1-12.

Evaluate the following factors related to your job at your university on a scale of 1-12 according to their importance. For you, number 1 will be the most important factor and number 12 will be the least important factor.

Use each number only once for each item to establish a reliable order of importance.

(To access all numbers from 1 to 12 on the scale, swipe left on the screen with the scale.)

(1 Most Important.....12 Least Important)

- Salary and wage benefits
- Job security
- Research & Development
- Academic development
- Making a difference
- Good work conditions (office space, lunch, etc.)
- Infrastructural facilities needed for my research
- Relationship with colleagues
- Relationship with managers
- Interesting work
- Acknowledgement
- Advancement opportunities

8) Open-Ended Question

The following question has been asked for you to share if you have anything else to say about this subject. Answering this question is optional.

If there is anything else you would like to say or add about the motivation and job satisfaction of the academicians, please write them below.

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RESUME