

A COMPARATIVE ANALYSIS OF EMPLOYEE AND ORGANIZATION
PERSPECTIVES ON “BRING YOUR OWN DEVICE” POLICIES

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DECLARATION OF ORIGINALITY

I, Kevser Gülnur GÖKCE, certify that

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ABSTRACT

A Comparative Analysis of Employee and Organization Perspectives about “Bring Your Own Device” Policies

Bring Your Own Device (BYOD), which allows employees to use their own mobile devices for work and connect to the corporate network, has getting more popular in many enterprises. Companies want to increase the efficiency and productivity of employees with decreasing the cost while employees prefer to use their own device in the work because they feel more comfortable and it eases the communication. BYOD has some advantages and disadvantages for both companies and employees. Organizations should think all of the effects of BYOD on their system and working environment. Although BYOD seems very attractive, companies and employees have some security concerns in different and various ways. The aim of this study is to explore employee and organization perspectives about BYOD. In this study, literature has been reviewed in order to develop a research model. Empirical part of the research has two parts: Qualitative and Quantitative. Manager’s opinions were determined through a series of interviews and then the findings were analyzed. In qualitative part, a questionnaire has been developed based on the research model. The English and Turkish versions of the questionnaire are in Appendix B and C, respectively. 12 different interviews and 93 respondents were used in the analysis. It has been found that while organizations and employees believe BYOD having benefits in many ways, they also support the idea that security and privacy issues should not be ignored

ÖZET

“Kendi Cihazını Getir” Politikasına Organizasyon ve Çalışanların Bakış Açısının Karşılaştırmalı Analizi

Çalışanların iş için kendi mobil cihazlarını kullanmasına ve şirket ağına bağlanmasına müsaade eden BYOD, birçok kurumda gittikçe daha popüler hale gelmektedir. Şirketler maliyet tasarrufuyla birlikte çalışanların verimliliğinin ve üretkenliğinin artmasını isterken çalışanlar da kendilerini daha rahat hissettikleri ve iletişimi kolaylaştırdığı için kendi cihazlarını işte kullanmayı tercih ediyorlar. BYOD, şirketler ve çalışanlar için birtakım avantaj ve dezavantajlara sahiptir. Organizasyonlar, BYOD'un kendi sistemi ve iş çevresi üzerindeki bütün etkilerini düşünmelidirler. BYOD çok cazip görünse de şirketler ve çalışanların farklı ve çeşitli yönlerden güvenlik endişeleri bulunmaktadır. Bu çalışmanın amacı, şirketlerin ve çalışanların BYOD hakkındaki görüşünü (perspektifini) araştırmaktır. Bu çalışmada, araştırma modeli geliştirmek amacıyla ilgili literatür gözden geçirilmiştir. Araştırmanın deneysel bölümü iki kısımdan oluşmaktadır: nitel ve nicel. Yöneticilerin görüşü bir dizi mülakatla belirlendi ve sonra da bulgular analiz edildi. Nitel bölümünde araştırma modeli temel alınarak anket geliştirilmiştir. 12 farklı röportaj ve 93 katılımcı analizde kullanılmıştır. Kurumlar ve çalışanlar BYOD'un birçok yönden faydaya sahip olduğuna inanırken, gizlilik ve güvenlik gibi unsurların göz ardı edilmemesi gerektiği fikrini savundukları da görülmüştür.

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CHAPTER 1

INTRODUCTION

The services offered by the internet technology have been rising each and every day. People get used to accessing everything whenever they want with small and smart devices. Therefore, they want to have this opportunity almost every field of their life even at work (Al-Muhtadi, 2015).

Nowadays, having to access corporate data and application from outside is very essential need for managers and employees. It is obviously very important for international companies to be in touch with each other independent of time and place. In addition to them, even small sized firms want to connect corporate network from outside (Madzima e al., 2014).

Giving employees to company owned mobile devices for accessing working applications has been considered the best option by companies to handle this problem. Although this can be a sufficient solution, today companies have started to think about BYOD (Bring Your Own Device) which means to employees can use their own phone to connect corporate data and application.

BYOD is not a new technology; it is only a policy of the company. They would decide whether permitting employees bringing their own device to work or not. BYOD brings some security concerns even though it has many advantages for both managers and employees. Even if lots of company desire to apply BYOD, they cannot be disposed as there has not been so much examples in the market (Twentyman, 2012).

The reason why employees and managers demand for BYOD is different from each other. Employees prefer to use their own device because they feel more

comfortable and flexible while managers want to take advantage of the employees being available whenever they want. Companies should evaluate BYOD in various perspectives, as it has become attractive trend in the business world.

The aim of this research is to analyze both employees and managers' perspective about BYOD that is very new concept for companies in order to learn their thoughts and expectations.

As BYOD is a recent concept, there is not been so many literatures about this subject. Quantitative research technique was used to find out the idea and planning of managers in different type of sectors and survey has been done as a qualitative research for understanding awareness and attitude of employees about BYOD.

This thesis is organized as follows:

Chapter 2 contains a discussion of relevant literature,

Chapter 3 includes the hypotheses of the research,

Chapter 4 contains the empirical results and discussion,

Chapter 5 includes limitations and future research,

Chapter 6 presents the findings and results of the research.

CHAPTER 2

LITERATURE REVIEW

Mobile devices play an incredibly essential role for people's lives with the need of easy and fast access to the information (Botha et al., 2009; Markelj & Bernik, 2015). As the life cannot be thought without them, the use of mobile devices for work is becoming very popular (Khan et al., 2015). Mobile devices offer wide variety of specialties including wireless technology, different type of applications, easy to access and connect, so companies have started to give employees to mobile devices in order to benefit from them after the working hours (Shumate & Ketel, 2014). Nowadays, companies have faced the problem that employees want to use their own device for work and they need to decide whether permitting to use their own device or not (Jaramillo et al., 2013).

Instead of using two devices for private and business applications, employees generally prefer using one device that may represent a proper solution. The result is "Bring Your Own Device" or BYOD, which means that employees make their own personal devices available for business purpose (Disterer & Kleiner, 2013). That is, employees can use their personally owned devices to access company resources such as email, file servers, and databases (Hayes & Kotwica, 2013). It is a very controversial subject in terms of security, managerial and technical approaches (Disterer & Kleiner, 2013; Tokuyoshi, 2013).

2.1 Advantages of BYOD for employees

2.1.1 Effectiveness and comfort

Employees can feel more comfortable when they access to enterprise network from anywhere, at any time without any extra device or connection (Morrow, 2012; Thomson, 2012). They do not see it as extra workload when they work with their own device after the working hours. Employees do not need to stay at office anymore. They can leave from the office early and continue to work in any place which they feel themselves comfortable. This is very nice news for especially managers to benefit from employees for longer hours (Madzima et al., 2014).

Employees have generally complaints about company own mobile devices because companies give them old technological devices because of budget constraints. It takes long time for companies to replace old fashion devices with new and higher technology ones. It is one of the reasons for employees to prefer BYOD as they do not want to have a trouble with old corporate computing device when using it (Madzima et al., 2014). As employees can use their own device more comfortably and connect the work environment whenever they want, they work more effectively (Zahadat et al., 2015).

2.1.2 Happiness

The device used by employees for work should have ease of use not to lose motivation. They become much happier when using their own phone which they like and know. Efficiency and production in the work environment rise with increased happiness (Cognini et al., 2013). It also results in increased profits. Furthermore,

employees can become more innovative because they can easily work together and share ideas at any time and any place (Waterfill & Dilworth, 2014).

2.2 Privacy concerns of employees about BYOD

While using own device results with perceived freedom and flexibility in terms of how, when, and where they can accomplish the work, it also leads to pressure on the employees to be always accessible and responsive to labor demands. So, it causes stress and tension for users (Fujimoto et al., 2016).

BYOD can limit the employees' activities on their own device with restricted rules of the organization as BYOD device is used for both personal and business purpose. Users do not have right to choose which application can be downloaded and installed (Jaramillo et al., 2014). They are also worrying about their data privacy because company can access all of the personal data for controlling the device remotely. Possibility of company access to their personal space make users feel irritated (Wang et al., 2014).

As Information Technology department should cope with all security and managerial issues, security solutions are especially important for protecting corporate data (Rhee et al., 2013; Porter, 2011). These security solutions also create security risks for user. Mobile Device Management (MDM) system is one of the options that is a type of security software. MDM software permits administrators to control mobile devices as easily as desktop computers. It is preferred by organizations for monitoring smart devices' status and controlling them remotely in order to prevent any data leakage (Pogarcic et al., 2013). Enterprises are developing and adopting mobile device management systems in order to enhance the security of mobile devices. It is very useful to handle the situation when the phone is lost or misused

(Rhee et al., 2012). Authentication rules, device settings are specified to limit the access of the corporate data. It also serves wiping feature if it is necessary (Chang, Ho & Chang, 2014). MDM does not differentiate personal device and corporate area and it serves a common space for BYOD, it limits the user's freedom. As users cannot act as free as they want, it can be seen as a negative attribute for users (Wang et al., 2014). Application and desktop virtualization solutions are also used for helping separate corporate network from unauthorized employee access (Dong et al., 2015). In this solution, users can access corporate network and data with remote access. Although user's area and corporate systems are separated from each other, some security policies should be also implemented to prevent any unauthorized data transfer (Ogie, 2016).

2.3 Advantages of BYOD for organizations

Organizations encourage BYOD because it has many advantages, such as reducing companies' cost and increasing users' productivity (Zahadat et al., 2015). BYOD is less costly when compared to other options like companies provide and manage devices for their employees (Morrow, 2012; Scardilli, 2014). Companies get rid of purchasing, maintenance, operational cost of company owned mobile devices. They become responsible for only configuring the connection between personal devices and company network (Shumate & Ketel, 2014; Ocano et al., 2015). Increased flexibility, productivity, mobility and employee satisfaction contribute positively to the companies (Rivera et al., 2013).

2.4 Security concerns of organizations about BYOD

While most organizations would find the idea of allowing employees to use mobile devices very essential to make employees be satisfied in today life conditions, they also face the risk of keeping corporate data unsecured (Morrow, 2012; Tokuyoshi, 2013). Another problem about BYOD is managing different types of devices. As the complaints differ for each types of them, internal help desk or other departments can have a trouble for solving specific problems (Cognini et al., 2013; Scardilli, 2014).

Mobile devices that connect to enterprise networks significantly increase threats to sensitive data if the data is unencrypted (Morrow, 2012; Thomson, 2012). Especially mobile hot spots can be dangerous as data is sent via unsecured network (Shumate & Ketel, 2014). Nowadays, mobile devices become very attractive for hackers because it is not safe as PCs because of unsecured wi-fi connection, less protective anti-virus system, jailbreak property and user ignorance. The operating system and application of devices may be affected by mobile threats involving exploits to take control of the whole system, or harm part of the device (Madzima et al., 2014). Malware, viruses and malicious codes that open backdoor for attacks are also concerns for data leakage (Chang et al., 2014; Kim & Lee, 2014).

The percentage of data loss caused by careless internal employee is very high. Employees need to feel the responsibility of having corporate data in their mobile (Morrow, 2012; Lennon, 2012). They should know safe usage rules of mobile devices to avoid causing any security breach (Markelj & Bernik, 2015). They should be also aware of threat of phishing attack that steals sensitive information from users with deceiving them (Arachchilage, Love & Beznosov, 2016). Another subject taken into consideration is about unsecured employees who access confidential corporate data by their own device. It is very hard to prevent system and sensitive data from

intentional damage of users. Security agreements including hard rules should be a solution to deter from malicious act (Madzima, Moyo & Abdullah, 2014).

Organizations need to take into consideration some of the security precautions to safeguard corporate data from both external and internal threats as they can handle the drawbacks of BYOD (Miller et al., 2012).

CHAPTER 3

HYPOTHESIS FORMATION

3.1 Main hypotheses

3.1.1 Effectiveness

Mobile devices have wide variety of functionalities for achieving work and non-work activities and let employees to continuously keep in touch with colleagues, families, and friends (Fujimoto et al., 2016). Using their own devices for work increases the motivation of employees. Therefore, they begin to work more effectively (Shumate & Ketel, 2014).

H1: There is a positive relationship between the employees have a tendency for working more effectively if BYOD is used and employees' perceptions about BYOD is more advantageous.

3.1.2 Comfort

New trending device models emerge each and every day with the rapid development of technology. Users want to benefit from this blessing of the technology for easier and quicker communication. Forcing the employees to use old-fashioned company owned devices means the restriction of their freedom (Madzima et al., 2014). So, using the device they prefer and working with them make employees feel more comfortable and freedom (Shumate & Ketel, 2014).

H2: There is a positive relationship between the employees have a tendency to feel more comfort in work if BYOD is used and employees' perceptions about BYOD is more advantageous.

3.1.3 Privacy concerns

When BYOD is discussed, the importance of organization's data security is considered more than the user's data privacy. However, the protection of user's data is also a very important issue. As employees share the control of their own device and private information with BYOD, it seems very risky for users (Madzima, et al., 2014). Therefore, companies should take the necessary actions to prevent the data leakage and mingle (Miller et al., 2012).

H3: There is a positive relationship between the employees' security concerns about BYOD and employees' perceptions about BYOD is more advantageous.

3.2 Hypotheses about descriptive variables

H4: There is a difference between women and men with respect to employees' perceptions about BYOD is more advantageous.

H5: There is a difference in the mean values and variances of age of employees with respect to employees' opinions about BYOD is more advantageous.

H6: There is a difference in the mean values and variances of education level of employees with respect to employees' perceptions about BYOD is more advantageous.

H7: There is a difference in the mean values and variances of employees who can access corporate data and application from outside with respect to employees' perceptions about BYOD is more advantageous.

H8: There is a difference in the mean values and variances of employees who want to access corporate data and application with his/her own device with respect to employees' perceptions about BYOD is more advantageous.

H9: There is a difference between men and women with respect to employees' perceptions about accessing corporate data and application with his/her own device.

CHAPTER 4

ANALYSIS FINDINGS AND RESULTS

4.1 Theoretical framework

As the subject of the thesis is “A Comparative Analysis of Organization and Employees Perspectives “, the framework placed in Figure 1 includes disadvantages and advantages of BYOD for both companies and employees. Employee’s perspective also affects companies’ decision about BYOD because their attitude and thoughts are important for companies.

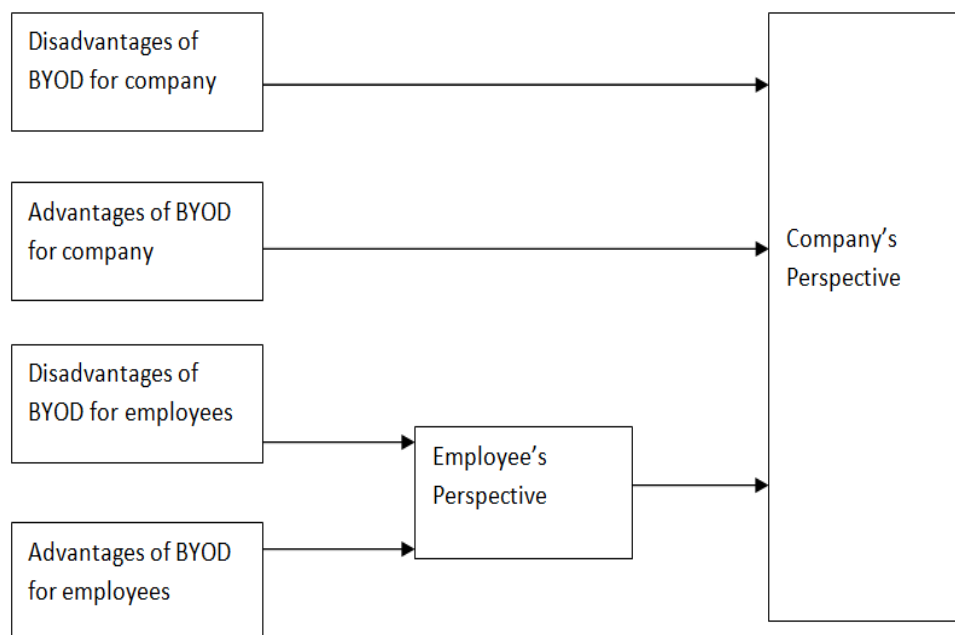


Fig. 1 Model for company’s perspective about BYOD

4.2 Qualitative analysis

In order to learn manager's perspective about BYOD, an interview was conducted with managers who work in different sectors and departments. The type of sectors were chosen based on the relevance of mobility. It is taken into consideration to interview with institutionalized and well-known companies because they follow technological developments closely. Small-sized enterprises are also included in the scope in order to compare with large firms and learn their attitude about this subject. The information about interviewed managers, sectors, companies and departments are shown in Table 1. Twelve managers at seven different companies of five different sectors were interviewed. The interviews lasted between 20-30 minutes and were done face to face or via phone with the managers. The set of questions asked in the interview is placed in Appendix A. The summary of their answers were noted during the interview. The questions were asked to understand related company policies about BYOD, managers' own ideas and the general company requirements and needs about usage of personal own device. Managers were asked to evaluate necessity of BYOD in terms of the type and size of the sector, department and their own perspective. According to the answers of managers, the general results with respect to sectors are summarized in Table 2.

Table 1. Information About the Sector, Companies and Managers in the Interview

Sectors	Companies	Managers
Finance	Garanti Teknoloji	Treasury Analyst Leader
	Participation Bank	Internal Audit Department Manager
		IT Application Department Manager
Telecommunication	Türk Telekom	Türk Telekom Information Security Specialist
		Türk Telekom Service Operation Manager
		Türk Telekom Enterprise Sales Operation Manager
Automotive	Volvo	Technical Trainer
IT	Bilgi Sistemleri	Sales Support Group Manager
		Pre-Sales Manager
Small Enterprises	MyShop	The Owner of the Shop
		IT Manager
	Hayal Akademisi Bilişim ve İletişim	The Owner of the Company

Table 2. Perspectives of Different Sectors About BYOD

	Finance and Telecommunication Sector (Garanti Teknoloji, Participation Bank, Türk Telekom)	Manufacturing and Service Industry (Bilgi Sistemleri, Volvo)	Small Enterprise (MyShop, Hayal Akademisi Bilişim ve İletişim)
Main Responsibility of the Sector	Finance and Telecommunication Sector includes many critical data about customer and other related stakeholders. They are responsible for being compliant legal policy and standards about information security when using information technology.	Using information technology efficiently plays an important role for manufacturing companies to take fast decision and to respond customer quickly.	They have limited number of applications, employees and customers. So, information technology is used for only running the business.
Security Concerns	Security is very important issue for finance and telecommunication sector as they process and store critical customer data. They have many concerns about implementing BYOD because they are afraid of disclosure of corporate data.	Of course, they have critical corporate data but their main concern is increasing customer satisfaction with rapid response. Managers believe that they can handle with risks by taken related precautions like MDM, security software and anti-virus system.	They do not have well developed technology system; they have only one or two applications which are generally outsourced. Therefore, it is easier to have secure system when applying BYOD compared to other sectors.
Managers' General Attitudes Toward BYOD	The managers generally support company own device rather than bring your own device. They want to wait the day that advantages of BYOD are more than disadvantages of it.	BYOD is preferred by managers because of ease of use, easy adaptation and continuous availability of corporate data.	They do not feel the lack of advantages of BYOD. Availability of employees in every time and everywhere is not so necessary for them because there is not too much workload.
Implementing BYOD	Before implementing BYOD, all necessary security precautions are taken into account. IT and business departments should work together for BYOD implementation project in order to minimize related risks.	Almost all employees at least marketing and project departments should use BYOD with taking necessary security precautions. MDM should also be used for providing more controlled system.	Managers say that it is better to decide later to implement BYOD after they become bigger company

4.3 Quantitative analysis

4.3.1 Theoretical framework

The subject of the survey is Employee Perspective about BYOD and the main purpose is to observe the effect of independent variables that are mainly; advantages of BYOD (effectiveness, comfort) and privacy concerns. Theoretical framework of employee perspective about BYOD is shown in Figure 2.

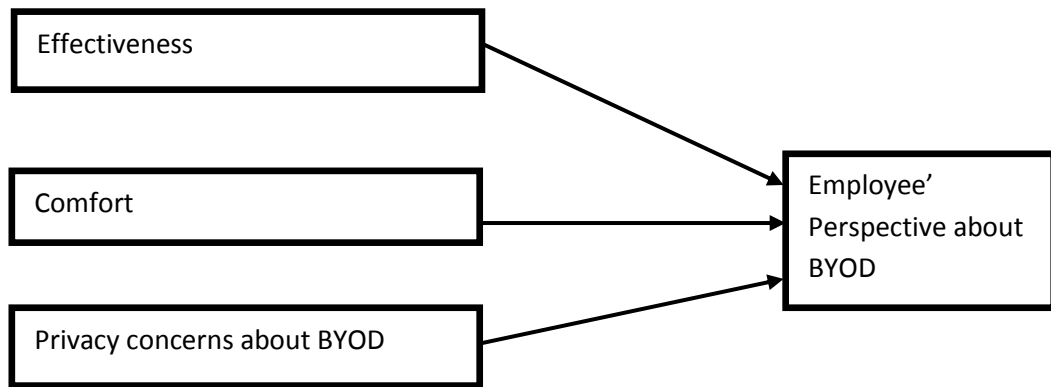


Fig. 2 Theoretical Framework of Employee' Perspective about BYOD

4.3.2 Research methodology of the survey

During the research, hypothesis testing design has been implemented, a survey of 12 multiple choice questions has been developed with using previous qualitative data. Google's document service is used and the questionnaire is distributed to only working people in different sectors through online networks via e-mail, social networking sites and the offline network. Participants are informed about who is doing the research and what the research purpose is. The English and Turkish versions of the questionnaire are in Appendix B and C, respectively

First three questions of the survey are direct questions about demographics of the respondents. Questions 4th, 5th and 6th are asked to learn the knowledge of

employee on his/her company's policy about BYOD. Other questions are to measure the perspective and feelings of employees about BYOD. Demographic characteristics; age, gender, education level are placed as independent variable. Independent variables and corresponding question matrix is mentioned in Table 3.

Table 3. Independent Variables and Corresponding Questions

Independent Variables	Related question
Effectiveness	8.
Comfort	10.
Privacy concerns about BYOD	12.
Dependent Variable	7. , 11.

The demographics of the respondents explained in the descriptive findings part. This study aims to explain the effects of BYOD from employee perspective. Since the subject is abstract and it is difficult to measure with multiple choice questions. That is why the wording was important and words have been selected carefully. There is a brief summary in the entrance of the survey to clarify the concept of BYOD for respondents. Final form of the survey has been written in two languages and it is attached to the final report. The quantitative data were analyzed using SPSS. Correlational hypotheses are tested and explained the existing relations with their directions. Research has been done in the natural settings of the respondents who were not interfered at any level of the research while they are answering the questions. Data has been collected from 93 respondents. Data was collected from our participants only once that is why our study is cross sectional. For questions 9,10,11, and 12, a 5-point Likert scale was used.

4.4 Descriptive findings

The demographic profile of the sample is shown in Table 4. There are 93 people who join to the study by answering survey. According to the results, 62% of them are women and 38% of them are men. In the questionnaire, there is scale for age 45 and above but it is combined with the scale for age between 35 and 44 for the analysis. The age statistics show that most of the respondents have an age between 24 and 35. 72% of them are between 25 and 34 ages, 16% of them are between 18 and 24 ages, 12% of them are above 35 ages. The most of the respondents are graduated from university which corresponds to 73% and 25% of them have the master degree.

Table 4. Demographic Profile of Respondents (N=93)

Age	18-24	25-34	35 and above	
	15	67	11	
	% 16	% 72	% 12	
Gender	Female	Male		
	58	35		
	62%	38%		
Education Level	High School Graduate	University Graduate	Master Graduate	Other
	1	68	23	1
	1%	73%	25%	1%

Table 5 shows the information about BYOD usage and knowledge of the respondents. It can be seen that respondents who are familiar with BYOD are less than others who have no idea or are unfamiliar. 18% of respondents have no access the corporate data and application via mobile device while using company owned device and personal owned device for access 30% and 52% respectively. Among applications and data which can be accessed by mobile device, e-mail has the highest ranking which is 64%. 79% of employees want to access corporate data and application with their own device while 15% of them do not want it.

Table 5. BYOD Usage and Knowledge (N=93)

Familiarity				
Very familiar	Familiar	No idea	Unfamiliar	Very unfamiliar
13	25	26	19	10
14%	27%	28%	20%	11%

Access		
I can access with my own device	I can access with company owned device	I cannot access from outside
48	28	17
52%	30%	18%

Extend of Access					
E-mail	Financial Information	Corporate Documents	Database	Other	None of them
59	4	6	2	5	17
64%	4%	7%	2%	5%	18%

Willingness to Use Own Device		
Yes	No	No idea
73	14	6
79%	15%	6%

4.4.1 Mean values of dependent variables

First, it is desired to analyze the reliability of “Effectiveness of Employees When Using BYOD” and the Cronbach’s alpha of four items of this question is very low. It corresponds to 0.538. According to Table D1 and D2 that show which item should be deleted in order to have reliable result, the 3rd and 4th expressions of question 7 are deleted. After deleting variables, the value of Cronbach’s alpha is 0.826. For making the question 7 reliable, the negative expressions have been deleted. So, unfortunately the negative and positive expressions cannot be compared with each other. When comparing the positive expressions, it is clearly seen in Table 6 that both of the

expressions has almost same agreeable level, mean value is almost 3.5. As a result, although respondents do not highly support the idea of their efficiency increase with BYOD, they believe it.

In Question 10, as 3rd expression is negative, it is recoded. Then, looking at the reliability of the variables and the Cronbach's alpha is less than 0.70. This means that there is an inconsistency between the answers of respondents for the question 8. In order to make these variables reliable, last expression is deleted according the reliability analysis result shown in Table D3. Although the value is lower than 0.70, the result must be accepted. If more items are deleted, the results cannot be compared. When analyzing the mean values, one of them is under 3. Respondents do not agree the expressions of "I have a trouble with using company owned device". As the other expressions' mean value is more than 3, it can be said that employees agree them. The findings are shown in Table 7.

The Cronbach's alpha is 0.741 for the items in Question 12. As it is greater than 0.70, it can be said that there is reliability for these items. According to the Table 8, it is obviously realized that employees are highly worrying about all situations in Question 12. They have serious concerns especially for controlling their phone and accessing their photo and information by the company. Summary of all scale reliability values is placed in Table 9.

Table 6. Mean Values of the Effectiveness of Employees When Using BYOD (N=93)

Variables with the Effectiveness of Employees When Using BYOD	Mean*	Standard Deviation
My efficiency in the work increases with accessing corporate data and applications from everywhere and every time	3.37	1.24
I can finish the work in a shorter time if it is necessary to work after working hours	3.41	1.27

Cronbach's Alpha: 0.826

*5 Point Likert Scale

Table 7. Mean Values of Feeling Comfortable With BYOD (N=93)

Variables with Feeling Comfortable with BYOD	Mean*	Standard Deviation
I feel more comfortable if I use my phone	3.31	1.11
I have a trouble with using company owned device	2.60	0.89
I dislike that I have to carry both company owned device and my own device	3.35	1.95

Cronbach's Alpha: 0.625

*5 Point Likert Scale

Table 8. Mean Values of Privacy Concerns About BYOD (N=93)

Variables with Privacy Concerns About BYOD	Mean*	Standard Deviation
My company access my private information and photo in my phone	4.27	0.93
All data and photos are wiped remotely if my phone is lost or stolen	3.88	1.27
My phone is controlled by my company	4.32	0.82
My manager see my location and availability information	3.77	1.17

Cronbach's Alpha: 0.741

*5 Point Likert Scale

Table 9. Scale Reliabilities (N=93)

Scale	# of Items	# of Items Deleted	Cronbach's Alpha
Effectiveness	4	2	0.826
Comfort	4	1	0.625
Security	4	0	0.741

4.4.2 Correlation analysis

A correlation analysis was performed to investigate relationships between the variables. Pearson correlation coefficients were calculated with two-tailed significant test. In this analysis, some significant correlation has been observed. Statistically significant observations are illustrated in Table 10.

Correlations between variables, range between 0.247 and 0.529 which is indicating a moderate positive correlation between variables statistically significant.

Table 10. Correlations Between Variables

<u>Effectiveness</u>	Comfort .545(**)	Privacy concern .187	Employee' perception about BYOD is more advantageous. .429(**)
<u>Comfort</u>	Effectiveness .545(**)	Privacy concern .240	Employee' perception about BYOD is more advantageous. .247(*)
<u>Privacy Concern</u>	Effectiveness .240	Comfort .187	Employee' perception about BYOD is more advantageous. .015
<u>Employee' perception about BYOD is more advantageous</u>	Effectiveness .429(**)	Comfort .247(*)	Privacy concern .015

** Correlation is significant at the 0.01 level

* Correlation is significant at the 0.05 level

4.5 Hypothesis testing

4.5.1 Correlation test

In order to do correlations test:

- The hypotheses are to test the relationship of the variables.
- If the two variables have interval or ratio scale, a correlation test is done.

The correlation value is used for showing how strong the relationship is or not. For hypotheses 1, 2, 3, correlation test is done. Correlational values are placed in Table 10.

According to Table 11, sig.(2-tailed) is less than 0.05 for hypothesis 1 and 2. So, they are significant. For hypothesis 1, the correlation value 0.429 which is positive. There is a positive relationship between the employees have a tendency for working more effectively if BYOD is used and employees' perceptions about BYOD having more advantageous. So, hypothesis 1 is supported.

For hypothesis 2, as the correlation value 0.247 which is positive. According to the result, there is a positive relationship between the employees believe that they work more comfortably if BYOD is used and the employees think that BYOD has more advantages than disadvantages. So, hypothesis 2 is supported. When comparing the effect of effectiveness and comfort on employee perspective about BYOD, it can be said that effectiveness specialty of BYOD is more influential.

For hypothesis 3, Sig.(2-tailed) is 0.886 which is higher than 0.05. Hypothesis 3 is rejected as there is no significant relationship.

Table 11. Sig. Values for Hypotheses 1, 2 and 3

Hypothesis	Sig. (2-Tailed)
H ₁	0.00
H ₂	0.02
H ₃	0.886

** Correlation is significant at the 0.01 level

* Correlation is significant at the 0.05 level

4.5.2 Independent T-test

In order to do an Independent T-test :

- Hypothesis looks at differences between two groups on some variable of interest.
- Grouping variable has to be dichotomous.
- Test variable has to be continuous. It can be interval or ratio.

In the T-Test, three values which are sig.(2-tailed) , F value and means are analyzed.

If sig.(2-tailed) is less than 0.05, it can be said that there is a significant difference between two groups. For hypotheses 4 and 9, Independent T-Test is done. Sig.(2-tailed) is higher than 0.05 for hypotheses 4 and 9. So, there is no significant difference in mean values for both of the hypothesis. Sig. value and mean values for

hypothesis 4 and 9 are shown in Table 12 and 13 respectively. According to the results, hypothesis 4 and hypothesis 9 are rejected.

Table 12. Sig. Value and Mean Values of the Independent T-Test for Hypothesis 4

Statements	F	Sig. (2-Tailed)	Mean Values
Employees believe that BYOD has more advantages than disadvantages (woman)	4.335	0.174	3.24
Employees believe that BYOD has more advantages than disadvantages (man)			2.91

Table 13. Sig. Value and Mean Values of the Independent T-Test for Hypothesis 9

Statements	F	Sig. (2-Tailed)	Mean Values
I would like to connect corporate data and application with my own device (woman)	2.211	0.140	1.24
I would like to connect corporate data and application with my own device (man)			1.34

4.5.3 Anova test

In order to do Anova test:

- It can be more than two groups.
- Variables are interval or ratio scale.

In the Anova test, three values which are sig.(2-tailed), F value and means are analyzed. If sig.(2-tailed) is less than 0.05, it can be said that there is a significant difference between the mean values and variances of groups. According to Table 14, sig.(2-tailed) is higher than 0,05, there is no significant difference. So, hypothesis 5,6, 7 and 8 are rejected.

Table 14. Sig. Values of the Anova Test

Hypothesis	F	Sig. (2-Tailed)
H ₅	0.368	0.693
H ₆	1.631	0.201
H ₇	1.323	0.272
H ₈	1.342	0.254

4.5.4 Multiple response crosstabulation

Question 9 is asked to analyze the degree of motivational strength of BYOD. In order to see which of the statement is more supported by employees, the frequency of each of them is assessed. When looking at the Table 15, it is clearly seen that the statements “I feel more free” and “I work more comfortable” gained more acceptance by employees if company applies BYOD. Another interesting result is the statement of “My communication with my managers increases” is marked least by the respondents.

Table 15. Number of Responses and Percentage of Motivational Strength Statements (N=93)

Statements	# of Responses	%
I become happier	29	12.4
I produce innovative ideas	27	11.5
My productivity increases	32	13.7
I feel more free	51	21.8
It increases my communication with my co workers	22	9.4
My communication with my managers increases	20	8.5
I work more comfortable	53	22.6

It is desired to see the relationship between employees who already use BYOD and motivational strength factors. Detail result of multiple response crosstabulation test is shown in Table D4. The most marked statements by participants are presented in the Table 16. Participants can select more than one expression in the survey for

motivational strength factors. It is understood from the table that employees who use BYOD believe more that BYOD increases motivational factors in the work.

Table 16. Crosstabulation of Motivational Strengths With High Rankings

<div> <div>Motivational Strength</div> <div>Access Type</div> </div>	I become happier (N=29)		I feel more free (N=51)		I work more comfortably (N=53)	
	# of Responses	%	# of Responses	%	# of Responses	%
I can access with my own device	19	65	25	49	26	49
I can access with company owned device	6	21	15	29	18	34
I cannot access from outside	4	14	11	22	9	17

4.5.5 Multiple regression

It is desired to explain how much of the variance in the dependent variable is explained by the all of our independent variables. So, multiple linear regression test is used. The significance values of comfort and privacy concern are higher than 0.05. As the significance value of privacy concern is under 0.05, the model showed in the below includes only effectiveness as a dependent variable. Table 17 shows the related coefficient values for regression model.

The employees' perspective about BYOD = $1.979 + 0.410 * \text{effectiveness}$

Table 17. Coefficients of Regression Model

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	1.979	0.610		3.242	0.002		
Effectiveness	0.410	0.110	0.424	3.713	0.000	0.700	1.429
Comfort	0.047	0.160	0.034	0.291	0.771	0.683	1.464
Privacy concern	-0.095	0.130	-0.072	-0.733	0.466	0.938	1.066

4.5.6 Discussion of hypothesis testing results

In this research, three hypothesis (H1, H2 and H3) are tested in order to see how dependent variable is affected by independent variables (effectiveness, comfort and security). According to related articles, it is estimated to see that effectiveness and comfort have positive impact on employee's perception about BYOD having more advantageous. The estimation is validated as hypothesis 1 and 2 are supported. Although it is predicted that security concern have negative impact on employee's perspective about BYOD, unfortunately significant result cannot be obtained for hypothesis 3.

It is obtained from the hypothesis testing results that age, gender and educational level do not have any significant effect on employee's perspective about BYOD. Therefore, hypothesis 4, 5, 6, 9 are rejected.

The hypothesis testing results are summarized in Table 18.

Table 18. Hypothesis Testing Results

Hypothesis	Status
H1: There is a positive relationship between the employees have a tendency for working more effectively if BYOD is used and employees' perceptions about BYOD is more advantageous.	Supported
H2: There is a positive relationship between the employees have a tendency to feel more comfort in work if BYOD is used and employees' perceptions about BYOD is more advantageous.	Supported
H3: There is a positive relationship between the employees' security concerns about BYOD and employees' perceptions about BYOD is more advantageous.	Rejected
H4: There is a difference between women and men with respect to employees' perceptions about BYOD is more advantageous.	Rejected
H5: There is a difference in the mean values and variances of age of employees with respect to employees' opinions about BYOD is more advantageous.	Rejected
H6: There is a difference in the mean values and variances of education level of employees with respect to employees' perceptions about BYOD is more advantageous.	Rejected
H7: There is a difference in the mean values and variances of employees who can access corporate data and application from outside with respect to employees' perceptions about BYOD is more advantageous..	Rejected
H8: There is a difference in the mean values and variances of employees who want to access corporate data and application with his/her own device with respect to employees' perceptions about BYOD is more advantageous.	Rejected
H9: There is a difference between men and women with respect to employees' perceptions about accessing corporate data and application with his/her own device.	Rejected

CHAPTER 5

LIMITATIONS AND FUTURE RESEARCH

This research contributes the literature by analyzing the organization and employee perspective about BYOD. In addition, the data acquired by the help of the managers of organizations from different sectors taking into account the mission and vision of their enterprises differentiate from others in the literature.

However, this study has some limitations. BYOD is not common and it is an unknown concept. Although BYOD concept was explained in detail to managers especially who are not working in the field of IT, interview results can be misleading. This is also the case for the survey conducted with employees. The answers of some respondents who do not have enough knowledge about BYOD may be generated biased results.

Another limitation of this study can be the response rate of the survey and interview. Because of the time constraints, our priority was collecting as much as data possible in a shortest time. If there were enough number of employees and managers from different industries, it would allow analysis that is more reliable.

This research can be further studied by conducting the analysis with managers and employees from every industry. In addition, the scope of the study can be extended internationally, and the perspectives of employees and organizations about BYOD for different countries can be compared.

CHAPTER 6

CONCLUSION

In this dissertation, it is desired to examine which situations and factors are effective on point of view of employees and organizations about BYOD. Interviews were conducted with managers of different departments in different sectors to find the perspectives of the organizations. Manager's attitude helps us understand the general perspective of the organization because managers represent the organization. The results obtained from interviews enabled us to achieve an overall knowledge.

As institutions in financial sector are audited regularly and they are obliged to comply with international information security regulations and standards they do not look positively the implementation of BYOD. They are extraordinarily sensitive for access, storage and protection of enterprise data. They know that BYOD implementation would create so much extra workload for IT departments. In addition, the slightest information leakage or vulnerability will lead to huge financial losses and loss of reputation. Although it seems attractive for marketing departments that should respond quickly customers, it is thought that the benefit is more than losses at this stage. When BYOD become widespread in time and if related regulations might be changed, financial intuitions take into consideration of implementing BYOD.

BYOD is discussed with the two companies which are Bilgi Sistemleri and Volvo in the field of production. Bilgi Sistemleri provides IT infrastructure support and consultancy to the companies. Volvo is doing the production and sale of automobiles. The common feature of both companies is indispensable need of the high-level technology. Their most important goal is to produce solutions to the

customer as quickly as possible. This is feasible only with easy and fast access to information. That is why they support BYOD. Volvo also use BYOD and feel the benefits because it is an international company and employees should be in contact regardless of time and place.

The managers in small business were asked to learn their awareness about BYOD and plans for the future. As there is not so much high volume of workload and developing IT infrastructure, they do not need the BYOD at this stage. The number of employees having high awareness of information security is also very low so usage of BYOD can create many risks for small enterprises. The only attractive thing is that accessing them constantly will improve the efficiency of the company as they have limited number of qualified personnel. An article written by Madzima et al. (2014) also support the finding obtained by our interview. It is stated that these small-scale organizations may lack the technical knowledge in implementing proper security strategies and the adoption of BYOD presents real security challenges and this may really compromise their information systems security.

Even if their organizations support BYOD, the general attitude of the managers in different sectors leads them to serious concerns about the leakage of enterprise data.

In order to learn perspectives of employees about BYOD, survey including multiple-choice questions was conducted to individuals working in different sectors. The data obtained from survey is not sufficient to gain meaningful result because BYOD is not applied in most of the companies in Turkey. According to the result of the survey, respondents who are familiar with BYOD are less than others who have no idea or are unfamiliar. Employees do not have enough idea about BYOD as they do not use their own device to access corporate data and application. Therefore,

results cannot be evaluated effectively because some of the hypothesis testing result is not significant.

In order to find out the effect of independent variables on employee perspective about BYOD, a regression model was estimated. Effectiveness has been observed as significant factor affecting employee perspective about BYOD. Privacy concern and comfort are not contributing factor for the dependent variable.

Although employees and managers find BYOD advantageous in many different ways, they also have significant concerns about security and privacy. Companies should think carefully when applying BYOD, they should take into consideration all of the effects of BYOD. It is a stubborn fact that the next generations of “digital natives” will strongly tend to use BYOD. Therefore, companies should start preparing to adopt their system for BYOD (Miller et al., 2012).

APPENDIX A

INTERVIEW QUESTIONS

- Are you or your co-workers out of office in a long term for corporate travel or other reasons?
- Do you connect corporate network in this situation?
- Are you connecting to corporate networks and applications your own mobile device or company own mobile device?
- Which services do you have access to on your mobile device? (E-mail, intranet portal, task list, etc.).
- Which applications increase productivity if you connect them through mobile devices?
- Can you talk about the features of application and the advantages of connecting to this app with mobile devices?
- Do you want to access enterprise application with your own mobile devices or company own mobile device? Reason?
- What are the main advantages caused by BYOD when taking into consideration the sector you are working?
- What are the main risks caused by BYOD when taking into consideration the sector you are working?
- Security and manageability issues emerge when it is allowed to BYOD practice for people working within your responsibility. What can be done for handling these problems?
- What are the confidential assets in your company? What are the consequences if they are appeared with or without intentionally?

- Which departments and positions should be allowed to BYOD when taking into consideration in the profile and level of awareness of information security of employees? Explain the reason.

APPENDIX B

QUESTIONNAIRE IN ENGLISH

Survey about BYOD-Bring Your Own Device

1 Gender:

- ☐ Woman
- ☐ Man

2 Age:

- ☐ 17-24
- ☐ 25-34
- ☐ 35-44
- ☐ 45 and above

3 Education level:

- ☐ Primary education
- ☐ High school
- ☐ University
- ☐ Master
- ☐ Other

4 Is BYOD familiar for you? Very familiar Familiar No idea Unfamiliar Very unfamiliar

☐ ☐ ☐ ☐ ☐

5 Corporate data and applications:

- ☐ I can access with my own device
- ☐ I can access with company own device
- ☐ None

6 If you can access corporate data and

- ☐ E-mail
- ☐ Financial information
- ☐ Corporate documents
- ☐ Database
- ☐ Other
- ☐ None

7 Would you like to connect corporate data and applications with your own device?

- ☐ Yes
- ☐ No
- ☐ No idea

8	If you can access corporate data and applications with your own device:	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
	My efficiency in the work increases with accessing corporate data and applications from everywhere and everytime	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	I can finish the work in a shorter time if it is necessary to work after working hours	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Using my device for work decreases the performance of it. This situation affects my working efficiency	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	As I know that I can handle my works with my phone after working hours, my performance in the work decreases	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9	If your company apply BYOD:					
	<input type="checkbox"/> I become happier					
	<input type="checkbox"/> I produce innovative ideas					
	<input type="checkbox"/> My productivity increases					
	<input type="checkbox"/> I feel free					
	<input type="checkbox"/> It increases my communication with my co-workers					
	<input type="checkbox"/> My communication with my managers increases					
	<input type="checkbox"/> I work more comfortable					
10	Please indicate how much you agree or disagree with each of the following statements	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
	I feel more comfortable if I use my phone	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	I have a trouble with using company owned device	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	I dislike that I have to carry both company owned device and my own device	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	I gain new user experience with using company own device	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11	I think that the advantages of BYOD is more than the disadvantages of it	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12	Please indicate how much you worry about each of the following statements	Strongly Don't Worry	Don't Worry	Neutral	Worry	Strongly Worry
	My company access my private information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	All data and photos are wiped remotely if my phone is lost or stolen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	My phone is controlled by my company	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	My manager see my location and availability information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

APPENDIX C

QUESTIONNAIRE IN TURKISH

BYOD-Bring Your Own Device- (Kendi Cihazını Getir) Anketi

Bu anket Boğaziçi Üniversitesi, Yönetim Bilişim Sistemleri Bölümü öğretim üyesi Yrd.Doç.Dr. Özgür Döğerlioğlu danışmanlığındaki yüksek lisans öğrencisi Kevser Gülnur Gökce tarafından tez projesi kapsamında gerçekleştirilmektedir. Anketin amacı farklı sektördeki çalışanların iş dünyası için yeni bir konsept olan "Kendi Cihazını Getir" uygulamasına olan bakış açılarını analiz edebilmektir.

Elde edilen sonuçlar tamamen akademik amaçlar için kullanılacaktır. Ankette yer alan tüm soruları eksiksiz ve dikkatli bir şekilde cevaplandırırsanız seviniriz.

BYOD - Bring Your Own Device- (Kendi Cihazını Getir) Tanımı: Çalışanların kurum tarafından verilen yeni bir cihazı kullanmak yerine kendi akıllı cihazını aynı zamanda iş için kullanmak istemesi "Kendi Cihazını Getir (Bring Your Own Device)" konseptini gündeme getirmiştir. "Kendi Cihazını Getir" yeni bir teknoloji değildir, sadece bir kurum politikası olarak ifade edilebilir. Bazı şirketler bunu yasaklama yoluna giderken, bazıları ise veri güvenliği politikası izleyerek çalışanların kendi cihazlarıyla kurumsal ağa bağlanmasına izin verebilmektedir.

1. Cinsiyetiniz :

- ☐ Kadın
☐ Erkek

2. BYOD-Bring Your Own Device- (Kendi Cihazını Getir) terimi size tanıdık geliyor mu?

- ☐ Çok tanıdık geliyor
☐ Tanıdık geliyor
☐ Fikrim yok
☐ Tanıdık gelmiyor
☐ Hiç tanıdık gelmiyor

3. Mezun olduğunuz son derece itibariyle eğitim durumunuz:

- ☐ İlköğretim
☐ Lise
☐ Üniversite
☐ Yüksek Lisans
☐ Diğer

4. Kurumsal bilgi ve uygulamalara:

- ☐ Kendi cihazımla erişebiliyorum
☐ Kurumun verdiği cihaz ile erişebiliyorum
☐ Herhangi bir cihazla erişemiyorum

5. Yaş aralığınız :

- ☐ 17 - 24
☐ 25 - 34
☐ 35 - 44
☐ 45 ve üstü

6. Eğer kurumsal bilgi ve uygulamalara telefonunuzla erişebiliyorsanız hangileri olduğunu belirtiniz

- ☐ E-mail
- ☐ Finansal bilgiler
- ☐ Kurumsal dökümanlar
- ☐ Veritabanı
- ☐ Diğer
- ☐ Hiçbiri

7. Kendi cihazınızı kullanarak kurumsal bilgi ve uygulamalara erişmek ister miydiniz?

- ☐ Evet
- ☐ Hayır
- ☐ Fikrim yok

8. Kendi cihazınızla sürekli olarak kurumsal veri ve uygulamalara erişmeniz durumunda:

	Kesinlikle Katılmıyorum	Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum
Her an her yerden kurumsal veri ve uygulamalara erişebilmem çalışma verimimi artırır	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mesai dışında çalışmam gerektiğinde kendi telefonum üzerinden bu işi daha kısa sürede hallederim	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
İş için kendi cihazımı kullanmak cihazımın performansını düşürür. Bu durum iş verimliliğimi olumsuz etkiler	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mesai sonrasında işlerimi kendi telefonum üzerinden halledebileceğimi bildiğim için gün içi çalışma performansım düşer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. Çalıştığınızda kurumda BYOD uygulanırsa:

(Birden çok seçim yapabilirsiniz)

- ☐ Daha mutlu olurum
- ☐ Daha yenilikçi fikirler üretirim
- ☐ Üretkenliğim artar
- ☐ Kendimi daha özgür hissedirim
- ☐ İş arkadaşlarımla olan iletişimim artar
- ☐ Yöneticilerimle olan iletişimim artar
- ☐ Daha rahat çalışırım

10. Aşağıdaki ifadelere katılım derecenizi belirtiniz.

	Kesinlikle Katılmıyorum	Katılmıyorum	Ne Katılıyorum Ne Katılmıyorum	Katılıyorum	Kesinlikle Katılıyorum
İş için kendi telefonumu kullandığımda, alışık olduğum bir telefonu kullandığım için kendimi daha rahat hissederim	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
İşyerinden verilen telefonu kullanmakta zorluk yaşıyorum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hem işyerinden verilen telefonu hem kendi telefonumu taşımak zorunda kalmaktan hoşlanmıyorum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Kurum tarafından verilen telefonu kullanmak yeni bir kullanıcı deneyimi kazanmamı sağlıyor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. BYOD'un avantajının dezavantajından fazla olduğunu düşünüyorum.

- ☐ Kesinlikle Katılmıyorum
- ☐ Katılmıyorum
- ☐ Ne Katılıyorum Ne Katılmıyorum
- ☐ Katılıyorum
- ☐ Kesinlikle Katılıyorum

12. Aşağıdaki ifadelerde belirtilen durumun gerçekleşmesi sizi ne kadar endişelendirir?

	Hiç Endişelendirmez	Endişelendirmez	Ne Endişelendirir Ne Endişelendirmez	Endişelendirir	Çok Endişelendirir
Telefonumdaki kişisel veri ve fotoğraflara çalıştığım kurum tarafından erişilmesi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telefonumu kaybettiğimde ya da çaldığımda telefondaki tüm veri ve fotoğrafların uzaktan erişilerek silinmesi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Telefonumun tamamının ya da bir kısmının çalıştığım kurum tarafından yönetilmesi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Yöneticimin konum bilgimi ve erişilebilir (online) olma durumumu görebilmesi	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

APPENDIX D

RESULTS of SPSS ANALYSIS

Table D1. Reliability Analysis Result for All Variables About Efficiency

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
My efficiency in the work increases with accessing corporate data and applications from everywhere and everytime	10,5054	5,601	,414	,383
I can finish the work in a shorter time if it is necessary to work after working hours	10,4624	5,338	,446	,349
Using my device for work decreases the performance of it. This situation affects my working efficiency	10,3871	7,001	,252	,522
As I know that I can handle my works with my phone after working hours, my performance in the work decreases	10,2581	6,911	,199	,567

Table D2. Reliability Analysis Result for Efficiency After Deletion Procedure

Item-Total Statistics				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
My efficiency in the work increases with accessing corporate data and applications from everywhere and everytime	6,8925	3,054	,535	,194
I can finish the work in a shorter time if it is necessary to work after working hours	6,8495	2,781	,594	,071
Using my device for work decreases the performance of it. This situation affects my working efficiency	6,7742	5,372	,080	,826

Table D3. Reliability Analysis Result for All Variables About Comfort

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I feel more comfortable if I use my phone	8,7634	4,009	,575	,304
I have a trouble with using company owned device	9,4731	5,709	,311	,541
I dislike that I have to carry both company owned device and my own device	8,7204	4,421	,390	,479
I gain new user expreince with using company own device	9,2688	5,916	,188	,625

Table D4. Multiple Response Crosstabulation Test Result

Q5*\$strenght Crosstabulation									
			motivational strenght ^a						
			I become happier	My productivity increases	I feel more free	It incereases my communication with my co-workers	My communication with my managers increases	I work more comfortably	I produce innovative ideas
Corporate data and application	I can access with my own device	Count	19	15	25	11	13	26	15
	I can access with company own device	Count	6	9	15	6	5	18	5
	I can't access from outside	Count	4	8	11	5	2	9	7
	Total	Count	29	32	51	22	20	53	27
									93

Percentages and totals are based on respondents.

a. Dichotomy group tabulated at value 1.

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