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## **ECONOMIC SUSTAINABILITY VIA RESTRUCTURING GOVERNMENTAL FORMAL LETTERS**

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### **Abstract**

Nowadays, the economic, social and environment are considered as three major concepts in human beings' life. However, dealing with these subsystems and maintaining them for the sake of humanity are going to be a great achievement. For a country to be sustainable these concepts will be evaluated. Hence, this paper investigates in economic sustainability of Kurdistan Region of Iraq (KRI) in order to decrease cost via restructuring and redesigning governmental formal letters. The main objective in this article is figure out that standardizing governmental formal letters will lead to decline public expenses. This is because implementing various formatting letter and different font sizes in public institutions cause serious problem in term of waste of money. So, the importance of this article is returning public cost to public budget, which is finally the whole society would worth from it. In order to achieve research objective primary data were collected through distributing a survey questionnaire among educated people in order to check the confidence level of readability. Also, interviewing information technology (IT) expert and public employers are other two major sources of the research data. The main results in this paper are, decreasing font size from 14 to 12 don't affect confidence level of readability. Moreover, this change in font size would return a huge amount of money to public budget.

## 1. Introduction

### 1.1 Overview

Recently, sustainability became one of the most obvious title to be studied all around the world as a result of the its important and providing many solutions for different issues. Basically, the term means the ability or capacity that should be provided and continued at a certain level for a period of time (Cambridge Dictionary, 2020). Generally, this term creates chances and looking forward to bring new ideas in order to protect human, economy and environment. Pezzey and Toman (2001) were mentioned about the two wave of sustainability, old and new. The old version refers to landmarks in the UK, when they tried to keep balance between food production and increasing in population (Malthus, 1798). However, new concern of sustainability is going back to last three decades when there was a new environmental threat, for instance deforestation, bio diversity loss and desertification (WCED, 1987). Moreover, Mc Kenzie (2004) discussed that sustainability was first defined in an international union for nature debate in 1980 as “maintenance of fundamental ecological processes and life support system including those of humans”. In 2018 (Sorvig and Thompson) have mentioned that there are three main types of sustainability, which are; environmental sustainability, social sustainability and economic sustainability.

Sustainability has three main pillars which are most obvious all around the world. First pillar is environmental sustainability, which is defines as “maintenance of natural capital” (Goodland, 1995). While social sustainability is “a life-enhancing situation inside communities, and a process inside communities that can achieve that condition” (Mc Kenzie, 2004). Finally, economic sustainability is known as a 3<sup>rd</sup> pillar

and it is considered as the most recent issue in economic debate. In economic sustainability, costs must be touched for majority of the cases. In macroeconomic discussion there are some aspects of economy which have been negotiated such as competitiveness (Klemmer, 1998), innovativeness (Rennings, 2000), and public debt (Bundeskanzleramt, 2002).

As far as sustainability became a global issue and it is considered as a method that could provide opportunities beside this play a great role in part of financial crisis solution. This research is made in order to decline a part of huge public expenses in Kurdistan Region Government’s institutions because it is suffering from shortage in budget.

This research works on how an economy of country will improve by providing economic sustainability. It focuses on costs reduction and proof how maintaining sustainability by reducing costs through working on small details of stationary costs could survive government’s budget deficit.

The map of this study begins from introduction to literature review, then narrow down to the method of doing and collecting data for this investigation, then an important part will appear, which is data collection. In this part, all the collected data have been analyzed scientifically through mathematical form. After then, all calculations and results have been discussed in logical way. Finally, it ends with chapter five which conclusion and suggestions.

### 1.2 Problem Statement

The problem of this study appeared, when it is noted that governmental sectors or ministries use different font size according to whatever they preferred, even though there was a formal letter saying that everywhere have to use font size “14” in Kurdish writing. Normally in English language font size 12 is standard and for readers it looks comfortable. The main question

in this research is; to what extent decreasing Kurdish font size from 14 to 12 would contribute in decreasing KRG's expenses? Also, does font size 12 is confidence for Kurdish reader or not?

### **1.3 Research Objectives**

There are four vital targets in this research which have been worked on. First, restructuring formal letters from all of governmental organizations, which means there will be one template and standard. Second, it provides economic sustainability via decreasing cost in public budget. Three, this implementation is a kind of recycling because number of used papers will decline. Finally, it aims to substitute font size 14 by 12 without changing readability level confidence.

### **1.4 Research Importance**

The significant of this paper is to provide a good solution to authorities in KRG in order to survive part of their budget deficit as a result of pushing costs down. In addition, the whole formal letters became more standardized. Also, providing a way of solution that other researchers could work on to achieve the same purpose wither in public or private sectors.

### **1.5 Research Hypothesis**

In order to achieve research targets, following hypothesis have been suggested;

H0: There is no relation between decreasing public expenses and decreasing budget deficit.

H1: There is a positive relationship between decreasing public expenses and decreasing budget deficit.

H2: Readability level does not change after changing font size from 14 to 12.

## **Chapter Two: Literature Review**

### **2.1 Sustainability or Sustainable Development**

We can naturally understand sustainable development by two definitions: one that

considers environmental capacity while promoting quality of life, and the other that considers environmental capacity while promoting quality of life. Second, meeting the needs of this generation without impeding the ability of future generations to meet their own needs (Willis, 2006).

Sustainable development is not a static process; rather, it evolves over time, beginning with investment mines, institutional reform, and directing technological development to meet the needs of the future. We may deduce two things from this definition: first, it agrees with a single human's basic needs, which include food, clothing, shelter, and living a healthy life. Second, it acknowledges that the continuity of technological services and social organizations with environmental expertise will meet those needs now and, in the future, (Williamson et al., 2003). The concepts of growth and sustainability have outgrown their conception. According to Sharpley (2000), both growth and sustainability may have detrimental effects, despite the fact that neoclassical economics claim that they are incompatible (Lele, 1991). There are also those who argue that there is no such thing as sustainability without growth or development, and vice versa (Sachs, 2010: 28). The origins of creation theory can be traced back to theories of Western imperialism and colonialism. During that period, it was demonstrated that political control, infrastructure growth, and economic policy could be used as effective tools for both diminishing and marginalizing a country's power (Tangi, 2005). Returning to classical theories of progress, development is used in the context of development and economic growth. Progress, according to these theories, is a synonym for economic growth, which states go through at different times. This will include transforming traditional agriculture into a new urban

development of a wide range of goods and services. And traditional society is transitioning to a period of maturity and high consumption. According to the hypotheses, developed countries are constrained. That is due to the resources they receive from the government's strong hand, corruption, inadequate and adequate economic programs, and, eventually, political, economic, and institutional austerity. Where is the freedom and dominance of established, prosperous states being captured? (Todaro and Smith, 2003). Many neoliberal and modern growth ideas have been developed over the last 60 years, according to current understanding (Willis, 2005: 27). The entire point of growth is to produce a production that enhances the quality of life and increases self-sufficiency economic potential, which is initially more complicated and reliant on global integration (Remenyi, 2004: 22). The main goal of this procedure is to create an atmosphere in which people can enjoy their lives and live long, stable lives (Tangi, 2005).

## **2.2 Economic Sustainability and Cost**

The term "economic sustainability" refers to a development mechanism that does not irritate future needs while still satisfying current consumption. In economics, the term "sustainability" refers to the economic system as a whole. Hicks coined the term "economic sustainability." In his classic work *Value and Capital*, Hicks defines 'money' as the amount one can spend and still be better off at the end of the time. (1939; second edition 1946). Traditional economists, on the other hand, argued that natural resources would inevitably run out and put excessive focus on the market's ability to distribute resources efficiently. The microeconomics of strategy can be built on a foundation of understanding the nature of costs. Understanding the relationship between cost and decision-making is also a crucial part of

strategy research. It is critical for determining long-term productivity and cost position. The guiding theory is the concept of opportunity cost. This is a concept that defines term as the foregoing of alternatives in the production of services and products. (Seldon and Pennance 1965, p. 253), For example, consider the cost capital for project A, or the return foregone by choosing project A over project B. It's not about the cost of the funds that Project A needs in terms of cash. When it comes to a person, the opportunity cost of a brand-new car could be the benefits foregone by not expanding the home. Although the opportunity cost of expanding into North America for a business could be the return foregone by not investing in China. The concept of opportunity refers to the idea that resources are restricted and scarce in relation to the possibilities that exist. If there were no shortage of resources in the first place, economic and economic thinking, as well as expense, would be worthless. What is the significance of this? Those expense decisions are less likely to be included in the annual accounts to be shared with shareholders. Relevant costs are specific decisions that are more likely to apply to future costs, while accounting costs are backward-looking and have to do with the business. Many expenses are incurred directly as a result of the activity of a business scale. In this sense, management accounting seeks to bridge the gap by looking ahead, even though it is unable to set budgets that predict the factors that will affect future costs.

## **2.3 Cost Management**

The accountant in charge of the financial department typically creates models that enable investors to measure the organization's performance and likelihood. As a result, the management accounting department creates a model that assists the organization's manager in

making better decisions and understanding the effect of those decisions on benefit and expense. The inputs consumed in these operations, as well as the costs of the inputs, are all measured by cost accounting models, according to the relationships between the organization's activities. Many who prepare cost accounting reports observe that the data they receive from the financial department's accounting is often insufficient for managers to make decisions. In conventional models, cost activities are either fixed or variable depending on operation, as they are in textbooks. This only affects the cost based on the size of the operation, not whether it is rising or decreasing. Many scholars, however, conclude that it is not the same way that managers classify and control their cost actions (e.g., Cooper and Kaplan [1998]; Noreen and Soderstrum [1997]). Managers respond to exogenous shocks to demand production as the most important act of cost management. These shocks are intended to force managers to reconsider the relationship between input levels and activity, as well as the relationship between costs and sales, and to assess how the cost change compares to the status quo. In conventional cost accounting, these changes are normally overlooked. Cooper and Kaplan [1998] conclude that cost accounting makes the fixed and variable cost behavior model obsolete. (Anderson, Banker, and Janakiraman, 2003) (ABJ) presented the first large-sample of evidence in which the cost changes not only in magnitude but also in direction of the change in the operation. ABJ shows that stickiness exists in general, selling, and operating costs, based on a large sample of companies over a 20-year period. They discovered that those costs decrease less as a result of a decrease in sales revenue in the previous year than they rise as a result of an equal increase in revenue. This

contradicts the notion that costs are either variable or fixed. Unit costs are constant over a number of operation factors, as is commonly believed in accounting in the management department. Finally, ABJ concluded that their results on improvements in costs and revenue levels demonstrate successful cost control. They claim that this result is sufficient to distinguish "between costs that shift mechanically with changes in volume and costs that are decided by the managers' resources committed." And this is based on research that suggests stickiness reverses over time, and the degree of it is linked to change costs, which influence managers' cost-management calculus. They ultimately demonstrate that their findings allow for the rejection of the conventional cost-behavior theory.

#### **2.4 Waste Management Strategies**

In this study, waste management played a significant role. This study contributes to waste reduction and waste management. The most important goals for waste management are to protect the environment, people, and money (Paul H. and Johann F., 2007). "Managing these wastes is extremely difficult due to the fact that disaster waste is mixed and difficult to separate" (Kobayashi, 1995). Waste management can employ a variety of techniques, such as collecting plastic bottles and paper from the dump or the street in order to recycle them and prevent them from becoming waste (DC Wilson, C Velis and C Cheeseman, 2006).

Another article discusses waste management hierarchy and sustainability. The waste management hierarchy includes minimize, reuse, recycle, treatment, and disposal, which are classified in order of most desirable to least desirable. The first step is to minimize waste at the start of the process; this is the most effective waste management technique. Then,

if possible, we can reuse the waste; if not, we can recycle it and repurpose it as a new product, such as plastic recycling. Treatment and disposal, which are the least suitable waste management practices, are at the bottom of the hierarchy. Waste management has an economic effect. For example, waste management may save manufacturers money while also opening up new business opportunities in remanufacturing. Waste management techniques, on the other hand, result in the development of new market opportunities in the areas of reproduction, composition of goods, and energy recovery (John Gertsakis and Helen Lewis, 2003). (John Gertsakis and Helen Lewis, 2003) have noted that waste management strategies have some social and environmental consequences, such as reducing air pollution and changing consumer habits while saving money. Since people are learning to reuse their trash rather than throwing it away.

### **Chapter Three: Methodology**

#### **3.1 Participant**

This research aims to maintain economic sustainability by returning cost to governmental budget or general budget. For this purpose, different people and groups were selected as they have classified to three main participants. First participants, are random literate people from all over Sulaymaniyah city. The condition of being able to read and write was to make sure that readability confidence level must be tested. Out of 212 questionnaires, only 150 data were considered as useful data for the purpose of the research, 71 of them were female and 79 were male. Their age group are between 18 and 55+, this is because those ages are able to conduct with governmental formal letters. Moreover, one of the most important factors in this research was to know if survey

participants are wearing glasses or not. So, it was one of the main questions inside the questionnaire.

Second participants were three responsible persons from three main different ministries of KRG, whose provided number of issued formal papers per year. Ministries of KRG itself could also be one of participant in this research.

Final participant was an IT specialist and expert in using cartridge, paper, and printer. He works with government; he maintains all stationary needs related to cartridge and paper for governmental ministries and departments.

#### **3.2 Procedure**

In order to achieve research objectives, researchers have distributed nearly 212 forms among literate people, especially the aged groups that are most probably conduct with issued formal letters from public organizations. At this stage, readability test was made among the target groups in order to test level of confidence in reading a certain paragraph. Hence, a paragraph was prepared in three different font size 14, 12 and 11. Due to COVID-19 lockdown only 150 data were collected among 200 forms, as it was important to distribute these questionnaires in hard copy instead of electronic, this is because this test must be seen in a printed paper rather than a soft copy.

Then, number of an estimated issued formal letters for one year; such as 2019 were received after two phone calls were done with two responsible persons in governmental ministries in KRG. They have provided this research an accurate estimation of outgoing formal letters from ministry of interior and ministry of health. Due to political issues in KRG they preferred to keep their names and position confidential. Moreover, it is mentioned that these numbers are not regular per year, however it could be used as a well estimated number.



Finally, an interview was made with an IT specialist and expert. He has explained based on his 13 years experiences with governmental sectors. During this interview some information such as; cost of one printer cartridge, how many words could fit in one A4 with font size 14 and 12, cost of refilling one cartridge and cost of one box A4 paper.

All of the collected data were considered as a primary data, because they have been obtained through questionnaires and interviews. Afterwards, data analyzing were implemented and explained in the next chapter.

### **3.3 Materials and Measures**

In this part, the research materials and measures explained more in detail. Moreover, source of collected data are were mentioned, for instance; survey and interviews were used to obtained research data. Based on one of the research's source, the IT specialist and expert, one cartridge can print out 1000 up to 1200 A4 full text papers. Beside this, printing any LOGO and background is considered as one full text A4 paper. So, in the research calculation extra paper were added as every single printed page has its LOGO with the normal page words.

In the survey questionnaire the level of readability confidence were tested after providing same paragraph in three font sizes (11, 12 and 14) and it was scored based on (Very good, Good, Normal, Bad and Very Bad). "Very Good" refers to respondents are very happy with the font size and they can ready easily without any struggling, while "very bad" refers just to opposite. The purpose of this ranking is to illustrate and understand readers level of confidence with a certain font size.

Furthermore, classifying readers based on either they wear glasses or not is considered as fundamental measure in this research because there is not exclusion between wearing glasses

or not in term of issuing letters from governmental organizations.

In addition, (Noto Naskh) was fixed as a formal font type for all the organizations in KRG with font size of 14 and regular type. This is relied on what the prime minister in KRG decided to make a standard format to all the formal letters. Beside this, Iraqi Dinar (IQD) used a measure of money and value in this research.

Finally, Statistical tool such as Microsoft Excel and E-views were used for calculation, analyzing data and creating graphs.

## **Chapter Four: Finding and Discussion**

### **4.1 Demographic Distribution and Test Sampling**

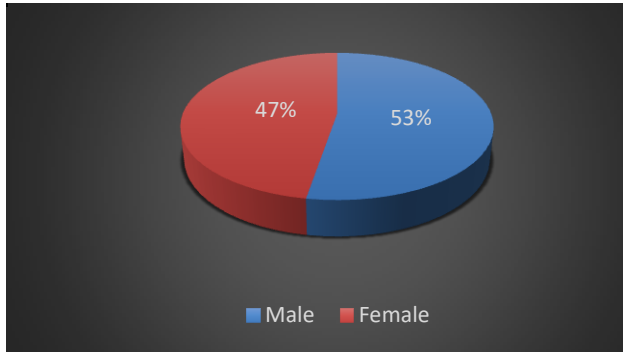
#### **4.1.1 Demographic Distribution sampling**

In this section, the demographic of the collected data was illustrated via using deferent tools. It was clear that, during the coronavirus pandemic collecting data and reaching people was not easy. For instance, asking people to fill research questionnaires in one hand, and reaching other experts to provide number of issued formal letters from governmental organization on the other hand. Hence, only 150 samples were gathered in some public places like (Majidi Mall. Family Mall), Also some public places were targeted such as: (Sulaymaniyah Health Sector, Ministry of Interior Administration in Sulaymaniyah).

At the beginning survey questionnaire were distributed among random literate people in Sulaymaniyah in order to test research hypothesis regarding to confidence in readability level, then they have been evaluated. After the survey and assessing the results, it is recognized that the data were acceptable and valid for the sake of research questions. The demographic part started by asking target groups' gender, as having known the target groups' gender could provide both

male and female confidence level of readability because both of them work in governmental sector. This result is illustrated in figure (1) below, which shows 79 of respondents were male in overall data sampling, while 71 of respondents were female which scope 47 percent.

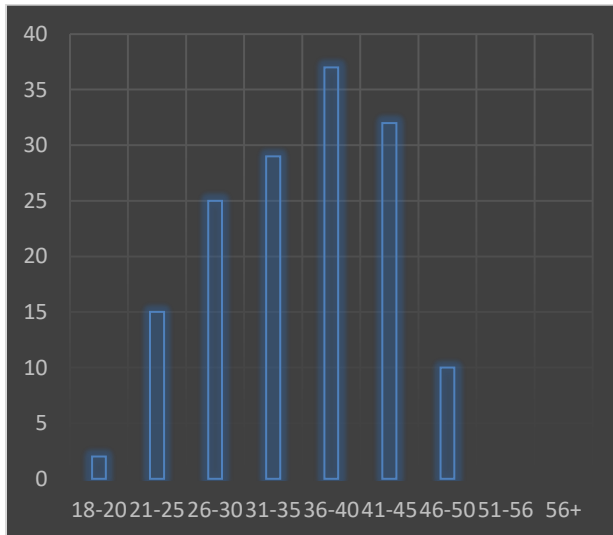
Figure 1 Gender Distribution



Prepared by researchers based on the collected data.

In addition, aged group were considered as a significant factor in this research, this is because normal aged group inside governmental organizations start from 18 years till the age of retirement. So, the groups were classified from (18-20), (21-25), (26-30), (31-35), (36-40), (41-45), (46-50), (51-55) and (56+).

Figure 2 Age Distribution



Prepared by researchers based on the collected data

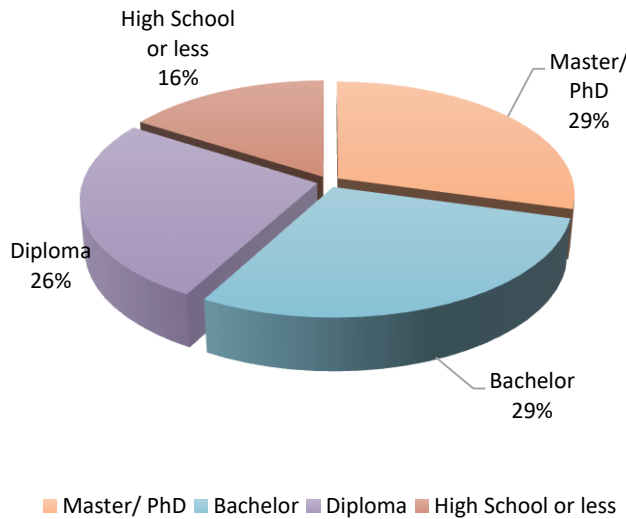
Normally, in Kurdistan region individuals in 18 and above are able to have conduct with governmental letter for example, people when turn to 18 start to deal with ministry of interior to have driving license for this purpose he/she have to print out formal documents, under this age people are not able to have driving license so they don't deal with governmental formal letters. Also, individual above 56 years old are retired so they don't deal with governmental formal letter or at least dealing with formal letters decreased after this age. Among respondents, 37 of them were between 36-40 years old and 32 of them were between 41-45, which took 25% and 21% respectively. This is the most common age for dealing with governmental formal letters because people at this age have a lot of personal issues and documents. Respondents age between 31-35 and 26-30 were 29 respondents and 25 respondents respectively. 15 respondents age were between 21-25 which score 10% while 10 respondent's age were between 46-50 which determines 7% in overall data collection. The smallest portion in age group was 18-20 years old respondents which were only 2 respondents that took 1% in overall data sampling. People from 51-56 and 56 above were not responded to this survey.

In next part, education level were determined. Actually education levels was not important as much as other factors but, participants have to be educated that be able to write and read. Therefore, educated people are matter. But education level were divided into four main subcategories including: Master/PhD, Bachelor, Diploma, and highschool/or less. The response for Highschool were 16% while 29% responded for Diploma which means they graduated from institutes. 43 of respondents were graduated from university which took 29% in overall data collection. At the same time, 29 percent of



respondents are holding master and PhD degree. The responses tell us that all of respondents are educated and they are able to read and write formal letters.

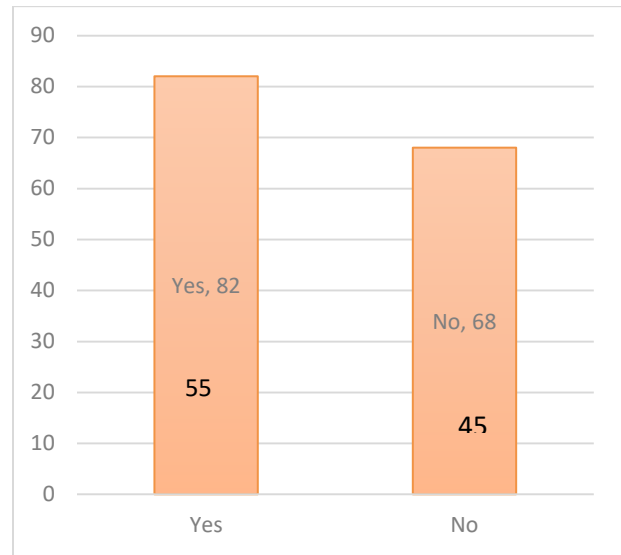
Figure 3 Education Level Distribution



Prepared by researchers based on the collected data.

“Do you wear glasses” is fundamental question of this survey, because through this question readability test results will be much more accurate. For this purpose two possible answers were written. The respondents were responsible to indicate either they use glasses or not. The majority of participants were wearing glasses which were 82 respondents and it took 55% in overall data sampling while 68 individual voted for no and they don’t wear glasses which was 45% in overall data collection. The amount of glass wearing people are more than not wearings so this is also helpful for indicating readability level of font-size 12. This data can be strongly dependable because most of respondents are holding MA, BA and PhD degree. Normally those people are able to read and write so they can focus more in it. So, their responses can be much more powerful rather than other respondents.

Figure 4 Glass Wearing Distribution.

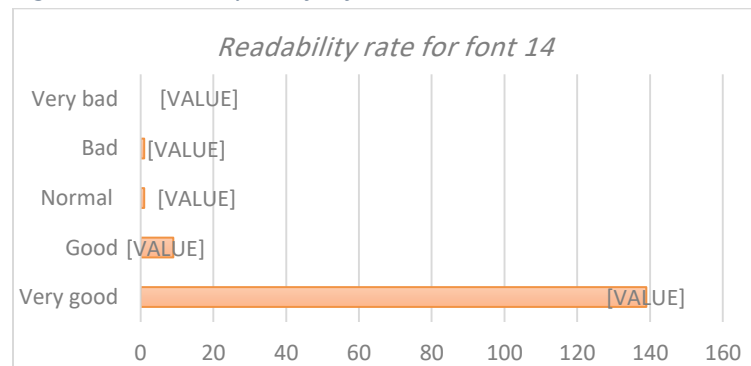


Prepared by researchers based on the collected data

#### 4.1.2 Readability Test sampling

Subsequently, in next step readability test were made among those 150 respondents. There were three identical texts written with Noto-nasikh font style in different sizes 14, 12, and 11. Then it showed to reader to indicate each text’s readability level. This test aim to clarify whether text’s readability level will change or not. In addition, collecting 150 data were not easy in COVID-19 pandemic situation because, this test was done by face to face method. Respondents must see the paragraph directly on paper otherwise accurate data will not be obtained by online method.

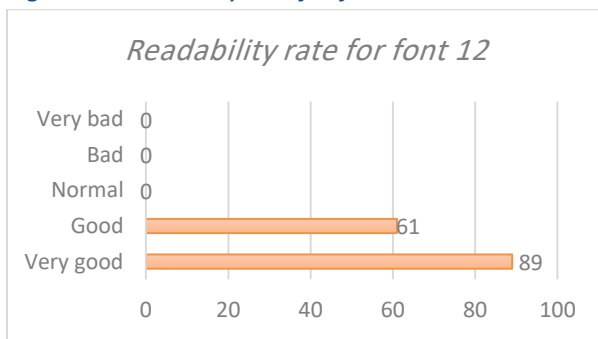
Figure 5 Readability test for font size 14.



Prepared by researchers based on the collected data

In figure 5, it can be seen the amount of response for “very good” is much higher in compare to others. 139 respondents out of 150 voted for “very good” and 9 people voted for good. Through this it can be understood that readability level for Noto nasikh font style “size 14” is suitable for readers, majority of readers can easily read the text without having eye problem. Besides, for each of “normal” and “bad” option there are 1 by 1 response. During survey filling the respondents said that “this type of size is too big and my eyes didn’t feel comfortable while I am reading formal text in this size”. Finally, there wasn’t any response for “very bad “option which means generally people didn’t find problem about text with size 14.

Figure 6 Readability test for font size 12.

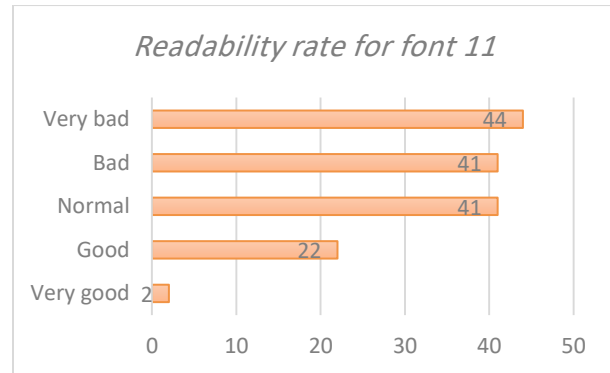


Prepared by researchers based on the collected data.

Another test was made with the same text but this time font size decreased from 14 to 12. In order to understand whether readability level will change or not, this test made by decreasing font size from 14 to 12. The results were surprised because there wasn’t any response for bad and very bad even for normal option. Among 150 respondents 89 of them voted for very good option and they are happy with this font size. Also, 61 people chose good option. Keep in mind that most of the respondents were wearing glasses and they feel confident with font size 12. This is a great achievement, which tells the hypothesis of this research is

accepted and can work on. Remember that one of research hypothesis was changing font size from 14 to 12 doesn’t change confidence of readability level and now there is prove for accepting research hypothesis.

Figure 7 Readability test for font size 11.



Prepared by researchers based on the collected data.

In last test, the size of font has been changed from 12 to 11 just for understanding how their will be the response of participants. As mentioned before this survey include both people who wear glasses and who doesn’t wear glasses. So, 44 of respondents among 150 participants rate this text as very bad because they were not happy with the size of it especially those who wear glasses voted for very bad and bad option. While bad option scored 41 participants and it’s same as normal option. Other respondents voted for good option which are 22 participants and the rest 2 respondents chose very good option which is smallest amount in this test. Based on survey’s result, those who voted for very good, good and even normal, they don’t have eye problem that’s why they were happy with font size 11. This result will not affect the aim of this research with readability test for font size 12 excellent results will generate.

## 4.2 Data Analysis and Calculation

### 4.2.1 Data Analysis

Table 1, consist of the data belong to ministry of interior for year 2019. In here the outgoing

formal letters for ministry of interior only in main building which located in Erbil city was nearly 19,000 for year 2019. While outgoing formal letters of other departments which belongs to ministry of interior is 2,114,000 for All cities including Erbil, Duhok, Sulaymaniyah, Halabja, Garmyan, Raparin, Koya in 2019. So, the total outgoing formal letters is 2,133,000 issued paper for 2019. For 1 formal letter minimum 7 more copy will generate by the ministry of interior and related departments. But there is only one copy of outgoing formal letter were calculated.

Table 1. Ministry of Interior’s Data.

Subjects	Outgoing papers	Cities	Year
Outgoing issue only for ministry of interior (main building)	19,000	Erbil (main building)	2019
Outgoing issues for Other departments belong to ministry of interior	2,114,000	Erbil, Duhok, Sulaymaniyah, Halabja, Garmyan, Raparin, Koya	2019
Total outgoing issue for	2,133,000	Erbil (main building), Erbil, Duhok, Sulaymaniyah, Halabja, Garmyan, Raparin, Koya	2019
Each of issues copied number	7 copy minimum		2019

Prepared by researchers based on the collected data.

Table 2. talks about data of outgoing formal letters for both ministry of health main building 17,627 and departments from all cities related to ministry of health 5,600,000 for year 2019. 5,617,627 was total of outgoing formal paper related to ministries of health in Kurdistan for year 2019. Minimum copied number for each formal letter of health ministry is 5.

Table 2. Ministry of Health’s Data.

Subjects	Outgoing papers	City	Year
Outgoing issue only for ministry of health (Main building)	17,627	Erbil (main building)	2019
Outgoing issues for Other departments belong to ministry of health	5,600,000	Erbil, Duhok, Sulaymaniyah, Halabja, Garmyan, Raparin, Koya	2019
Total outgoing issue for 2019	5,617,627	Erbil (main building), Erbil, Duhok, Sulaymaniyah, Halabja, Garmyan, Raparin, Koya	2019
Each of issues copied number	5 copy minimum		2019

Prepared by researchers based on the collected data.

According to formal decision which made by council of ministries. All ministries and sectors of KRI have to use Noto Nasikh font style for their formal letters and it’s mandatory, all of ministries and sectors have to follow this decision. Because Noto Nasikh is a type of Unicode font which doesn’t change in online form. However, about font size, there is no exact decision. So, all ministries use font size 14. There are some standards about cartridge and paper cost which was helpful for calculating data and having accurate result. For this purpose, an interview organized with an IT expert who has a good experience with cartridge and paper issues. He has 13 years of experience with government for maintaining cartridge and paper to most governmental sectors among Sulaymaniyah region. According to his speech, 1 cartridge can print out 1000 to 1200 A4 paper fully texted. In addition, adding background or logo will spend 1 A4 paper cartridge. On the other hand, cost of 1 cartridge is 10,000 IQD.

Table 3. Government items and Cost

<b>Printers which government use</b>	cannon LBP3010 and cannon LBP 6000
<b>cartridge which government use</b>	Cartridge code 715 and its usable for both printer
<b>1 (cartridge 715)</b>	1000 – 1200 full text A4
<b>Cost of 1 (cartridge 715)</b>	10,000 IQD

In table 5. Those items and costs were written which are available in governmental sectors and ministries. Based on the IT’s expert information, majority of governmental sectors use Canon LBP 3010 and Cannon LBP 6000 which are printer types. Also, they use cartridge 715 which is most suitable cartridge type and it’s

usable for many printer types. Cost and capacity of cartridge have been discussed before, it's also same for cartridge 715. It can print out 1000 to 1200 A4 (full text) and 1 cartridge 715 will cost 10,000 IQD.

#### 4.2.2 Cost Calculation

Based on the previous information that have been confirmed by the IT specialist, one cartridge can print nearly 600 A4 formal governmental papers because each of them has the institution's logo. This is the result of dividing 1200 paper as maximum paper by 2 due to the logo. So, it is confirmed that the capacity of one cartridge is up to 600 pages.

Within font size 14, one cartridge could print 186,000 words as a result 310 words "Noto Nasikh style" per page by 600 pages per cartridge.

Here, if the font size changed from 14 to 12, each A4 paper contains 420 words not 310. That means, there will be an extra 110 words per page, which provide up to 66,000 extra words per cartridge. In another way, 252,000 words would be printed if font size 12 were used as a result of multiplying 420 words by 600 pages, which provides 66,000 extra words after subtracting 186,000 words from 252,000 words. In term of counting extra papers, 66,000 extra words divided by 310 words for font size 14, 212 pages were returning to government's institution per cartridge. So, it is obviously clear that 212 extra papers are close to a third of 600 pages that are printed by one cartridge. Hence, the returning cost per cartridge would be equal to 3,333 IQD after dividing the cost of one cartridge (10,000 IQD) by three.

#### 4.3 Findings and Discussion

Research findings are discussed in this section based on the obtained data. It is obvious that one cartridge capacity is to print 1000 – 1200 full A4 papers based on what the IT expert has

supported. Hence, the maximum number of printed papers is taken in order to achieve research aims and fulfilling research requirements. Moreover, it's mentioned that one logo or background is measured as printing one A4 in term of cartridge ink, which means every cartridge can print maximum of 600 A4 papers because each paper has its logo.

Referring to previous section, 186,000 words would be the maximum number that each cartridge can printed based on Noto Nasikh font with the size of 14. This is because 310 words for 600 A4 would bring that number.

After implementing font size of 12 instead of 14, it is noticeable that each full A4 paper contains 420 words, which means extra 110 words is added per paper. So, that number multiplied by 600 papers bring 66,000 extra words per cartridge. In the other word, changing font size from 14 to 12 would bring nearly extra 212 A4 papers as a result of dividing 66,000 words by 310 words per A4.

In addition, it's significant to calculate returning cost per cartridge after implementing font change from 14 to 12. As far as 212 papers is nearly equal to a third of 600 paper, the cost of one cartridge should be returned by that rate, which is equal to 3,333 Iraqi Dinars.

Based on the ministry of interior's data, in 2019 it had nearly 2,133,000 issued letters, which needed about 3,555 cartridges. Hence, the total cost of cartridge was about 35,550,000 IQD with font size of 14. So, if the font size decreased to 12, nearly 30% of the total cost will be returned, which is equal to 11,715,000 IQD. Same thing if implemented on ministry of health, in total of 93,620,000 IQD nearly 28,086,000 IQD would be returned to public budget. In general, by implementing the same process to everywhere in KRI entities, nearly 30% of cost would be returned to government.

This illustrates that only by changing font size from 14 to 12 in all ministries and public organization, will return a huge amount of money to public budget, which means same output and process could be achieved by less amount of money. So, economic sustainability somehow recovered.

**Chapter Five: Conclusion and Suggestions**

**5.1 Conclusion**

It is obvious that maintaining cost, providing the best options for performing well and providing sustainability in all of its segments, especially in economic are considered as one of the significant factors that have to be managed efficiently.

To sum up, in order to participate in KRI economic sustainability this action was taken when formal letter font size has changed from 14 to 12 in order to decrease a part of public cost and return it to public budget.

One of the main objectives in this study was to reduce stationary cost in KRI organizations and returning them governmental. This is achieved via accepting research hypotheses when it says there is a strong positive relation between tax reduction and declining public budget.

In this research 30% of public expenses on buying cartridges were returned to government, which definitely bring a huge amount of money to public budget that could be invested in other sectors. For instance; in ministry of interior for 2019 around 11 million and a half IQD and in ministry of health nearly 28 million IQD could be returned.

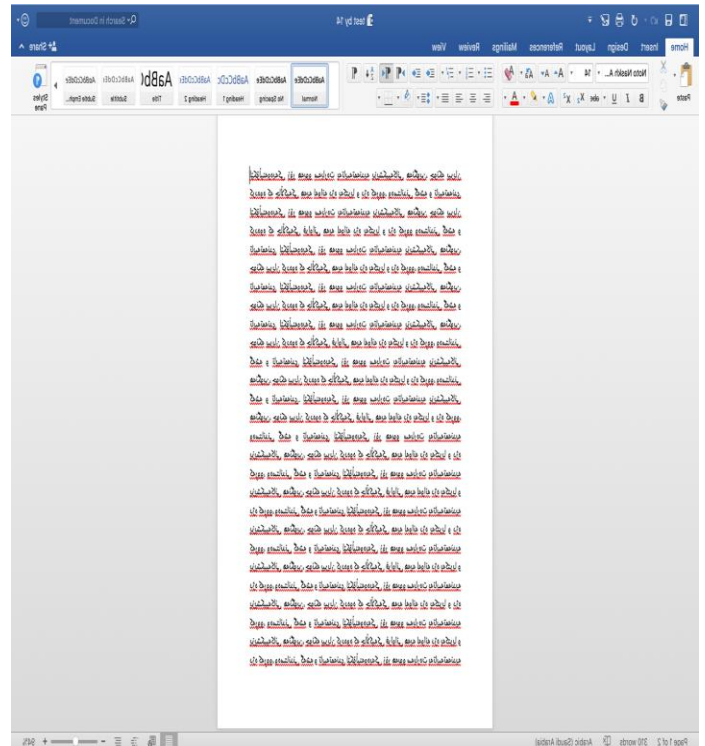
**5.2 Suggestions**

Therefore, there are several suggestions to government and authorities that can be taken into consideration:

- KRI should investigate and accept this idea and decide to implement it in every sector belong to it.

- There are many other important things that must be assessed for the sake of decreasing public expenses, within the same productivity.
- Refilling cartridges nowadays become popular in many of governmental and non-governmental institutions in order to decrease their deficit. This is an amazing opportunity to be replaced, because refilling cartridge after finishing them up could waste time and money via spoiling papers and damaging the printers as well.

**Appendix 1. Word-count test**



**Appendix 2. Survey questionnaire**







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