



THE RECOGNITION OF THE RESEARCH AND DEVELOPMENT (R & D) EXPENDITURES AND GRANT SUPPORTS UNDER THE CORPORATE TAX LAW and No. 5746 RESEARCH AND DEVELOPMENT LAW*

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Abstract

Although still unable to take part in the desired order in terms of competitiveness and R & D expenditures in the world, Turkey has also made significant progresses, especially in the last decade, in this area. The R & D Law No. 5746, which entered into force in the year 2008, has aimed to create a real sense of awareness of research and development in the country, and various financial supports have been made available. Turkey, as it aims to be among the top ten economies on a global basis as of 2023, has to perform a conversion supported by research and development in the structure of production in the country.

In this study, the benefits of the R & D supports in the frame of the R & D Law No. 5746 and Corporation Tax Law No. 5520 for the firms, and how to overcome the possible problems of recognition and documentation of the tax laws will be focused on.

Key Words: *Research & Development, R&D Expenditures, R&D Grant Supports*

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Araştırma ve Geliştirme Harcama ve Hibe Desteklerinin Kurumlar Vergisi ve Araştırma Geliştirme Kanunu Çerçevesince Değerlendirilmesi

Özet

Ar-Ge harcamaları ve rekabetçilik açısından halen dünyada arzu edilen sıralarda yer alamamasına karşın, Türkiye’de de özellikle son on yıllık dönemde bu alanda önemli gelişmeler kaydedilmiştir. 2008 yılında yürürlüğe giren 5746 sayılı AR-GE Kanunu ile ülke içinde gerçek anlamda bir araştırma ve geliştirme bilincinin oluşturulması amaçlanmış ve firmalara çeşitli mali destekler getirilmiştir. Türkiye’nin, hedeflendiği gibi 2023 yılı itibarıyla küresel bazda ilk on ekonomi arasında yer alabilmesi için, ülke genelinde üretim yapısında araştırma ve geliştirme destekli bir dönüşüm gerçekleştirmesi gerekmektedir.

Bu çalışmada AR-GE desteklerinin 5746 sayılı AR-GE Kanunu ve 5520 sayılı Kurumlar Vergisi Kanunu çerçevesince firmalara sağlayacakları getirileri ve vergi kanunları karşısında oluşabilecek muhasebeleştirme ve belgelendirme problemlerinin nasıl aşılabacağı üzerinde durulacaktır.

Anahtar Kelimeler: *Araştırma & Geliştirme, A&G harcamaları A&G Teşvikleri.*

1. INTRODUCTION

Today, countries enter into various studies that can place their economic efficiencies and production structures at the highest levels to achieve a sustained economic growth. Research and development activities lead these studies. However, the nature of these studies, which have high expenditure items, fairly forces the firms in micro basis. In addition, when considering the efforts of countries of creating added values with fewer resources, it becomes essential to support and promote these activities on the country basis.

In the R & D activities worldwide, the development of Asian countries, especially of China, is particularly noteworthy. As of 2012, the Chinese economy, of which national income size is estimated to exceed 8 trillion US Dollars, ranks second in the world after the US economy. China's total R & D expenditure as of 2009 is 154 billion US Dollars, and the number of researchers is over a million people. South Korea, which was often compared with Turkey and said to be having a similar economic structure 30 or 40 years ago, has also come to the forefront with its activities in this area².

² “Dünya’da ve Türkiye’de Ar-Ge Faaliyetleri” İktisadi Araştırmalar Bölümü – June 2013, www.ekonomi.isbank.com.tr, entrance date 08/09/2014

2. THE SUPPORTS OF THE CORPORATION TAX LAW NO. 5520

With communique No. 1 of the Corporation Law published on April 3, 2007, it was made possible for firms to deduct the total R & D expenditures from the corporation tax assessments on the condition of establishing an **R & D Department**. In accordance with the provisions of the Corporation Tax General Communique series No. 1, with an application made to the Presidency of the Revenue Administration, it is possible to benefit from corporation tax deductions. The report attached to a petition in two copies, which shall be prepared in accordance with the format in the Annex of the Communique, is required to be sent to the Presidency of the Revenue Administration by hand or by mail. This report is required to be sent until the date of the provisional tax return for the period in which the R & D deduction will be implemented. The Presidency, after a general assessment of the report, will transition it to the Scientific and Technological Research Council of Turkey (TUBITAK) and / or to universities and / or to the enterprises specializing in the subject matter in order to determine whether the project exclusively quests for new scientific information and technologies or not. In line with the positive reports from these organizations, a reference letter allowing the deduction of the R & D expenditures is sent to the applicants.

In addition, the expense factors to be the basis of expenditure and subject to deduction are explained in the communique in detail. In that sense, the Corporation Tax Law may be called the first law with support provisions that is directly given for the R & D expenditures by the government. In accordance with this law, the R & D expenditure items and expense elements to be deducted from the tax assessments are detailed as follows.

- To resolve and enlighten the uncertainty in scientific and technological fields, and to obtain scientific and technical information to enable the development of new technologies,
- To develop new products, materials and supplies, tools, equipment, processes, systems, and to produce new techniques and prototypes with new methods, designs and drawing works,
- To develop new software based on new and original designs,
- To research or develop new methods, processes and procedures of production,
- To investigate new techniques / technologies of reducing the cost and increasing the quality, standard or performance of a product,

- Such activities as to measure the usability of the products obtained in the steps of forming and testing the final product made inside or outside the company are considered to be within the scope of the R & D activities.

The following expense items, on the condition that they are within the scope of the activities mentioned above and proved to be actually consumed for the said purposes, are fully permitted to be deducted from the corporation tax assessments³.

Raw materials and supplies expenses: Includes expenses related to all kinds of direct raw materials, auxiliary materials, operating materials, intermediate products, spare parts and similar expenses, and tangible and intangible asset acquisitions that are not subject to the depreciation application. The costs associated with the used actual percentage of the stocks of the raw and other materials in the R & D activities are covered by the R & D expenditure. Therefore, the amounts of the costs of unused raw materials and other materials in relation to the R & D activities are required to be monitored in the stocks account; and those used, sold or disposed of are required to be deducted from the stocks account.

Personnel expenses: The personnel costs required for the operations in relation to the R & D activities and expenses of this nature accrued in order to carry out the said operations. Wages paid to the servants and other untrained personnel in the company's R & D department and the employees not allocated to the R & D department who work in the R & D department only for a part of the day will not be considered in this context.

General expenses: Includes the power, water, gas, maintenance, communications, shipping as well as other costs incurred to ensure the continuity of the R & D activities to carry out the R & D activities, such as machinery and equipment related repair and maintenance costs used in the R & D activities. Also includes the insurance and rent expenses for the facilities used directly for the execution of the R & D activities, and other similar expenses such as the books, journals and other scientific publications. The actual use of these expenses in the R & D department is required to be identified and documented in order to be assessed as the R & D expenditures. The shares that will be calculated on general operating expenses in accordance with various criteria cannot be considered in this context.

Services rendered from third parties: The payments, except for the regular maintenance and repair expenses, made due to the R & D activities

³ Corporation Law No. 5520; Application Communique No. 1; 03/04/2007, www.gib.gov.tr, entrance date 24/11/2014

outside the company for vocational or technical assistance or analyzes from local or foreign institutions and other payments of this nature.

Taxes and other legal dues: Includes the taxes and other legal dues directly related to the R & D activities and the taxes taken into account as expenses in the determination of the corporation tax assessment. Also includes the taxes and other legal dues paid for real estate directly used for the execution of the R & D activities, and other similar dues in relation to the imported goods to be used in the R & D projects.

Depreciation expenses: Includes the buildings, machinery, plant, equipment, vehicles used directly in the R & D activities, and the shares of depreciation and amortization allocated to tangible and intangible fixed assets such as furniture and fixtures. On the other hand, the economic assets are exclusively required be used in the R & D activities and such use is required to be stable. The depreciations of the economic assets also used in economic activities other than the R & D department activities are not covered by the R & D expenditures.

Financial expenses: Includes the financial expenses on the basis of the R & D project in relation to the loans obtained from local, foreign and international organizations.

However, the firms are strictly required to perform the activities above in an R & D department. In other words, corporations are required to establish a separate R & D department in order to deduct the R & D expenditures from corporation tax assessments of company's income under the Article 10 of the Corporation Tax Law.

2.1. The Accounts of which the R & D Expenditures will be monitored

Firms are required to activate all of their research and development expenditures directed to intangible rights in the account period. However, the expenditures that are not directed to intangible rights and expenditures not needed to be capitalized in accordance with the provisions of the Tax Procedure Law can be directly stated as direct costs. In case of an intangible right occurred as a result of the project, such amount that is required to be capitalized, will be amortized through depreciation over 5 years.

However, in case of the cancellation of the project in subsequent years, or when it becomes impossible to complete the project, it is allowed to state the amount of the expenses of the company's R & D activities capitalized in previous years.

The R & D expenditures are required be separately accounted for to allow the accurate calculation of the R & D deduction from other production

activities of the corporation. Expenses incurred during the period are required to be registered on the account of 750-Research and Development Expenses within Operating Expenses⁴. Sub-accounts of this account can be detailed as follows.

750- Research and Development Expenses

01. Raw Materials and Supplies Expenses

02. Worker Wages and Expenses

03. Services Rendered from third Parties

04. General Expenses

05. Taxes and Other Legal Dues

06. Depreciation Expenses

07. Financial Expenses

Firms, in accordance with the related law, are required to activate all of their research and development expenditures for intangible rights in the account period. Therefore, the expenses accumulated in the 750 Research and Development Account are to be capitalized by transferring to 263 Research and Development balance sheet account at the end of every period. However, the expenditures that are not directed to intangible rights and expenditures not needed to be capitalized in accordance with the provisions of the Tax Procedure Law can be directly stated as direct costs.

Intangible rights arising from the project shall be amortized through depreciation over 5 years. However, in case of the cancellation of the project in subsequent years, or when it becomes impossible to complete the project, it is allowed to state the amount of the expenses of the company's R & D activities capitalized in previous years. In this case, all capitalized R & D expenditure in the account No. 263 shall be converted to costs by transferring to the account No. 630 Research and Development Expenses at the end of the related year.

2.2. Supports and Grants Provided to R & D Projects

A certain proportion, which can be monitored and evaluated, of the projects having the qualifications of R & D in the coverage and in accordance with the provisions of the Corporation Tax Law No. 5520 Communiqué No. 1 are met by the Undersecretariat of Foreign Trade as in the form of grant or the projects are refunded to provide capitalization support.

⁴ Bağrıaçık Atilla; "Ar-ge ve Yenilik Projelerinin Finansal Yönetiminde Dikkat Edilecek Hususlar", www.denib.gov.tr, entrance date 02.10.2014

The projects that are refunded to provide capitalization support under this legislation are in the nature of debt and cannot be included in the commercial profit. However, the amount of supports provided in the form of grants under this legislation (i.e. TUBITAK funds) with all kinds of amounts in the nature of support from shall be included in earnings as an item of the commercial profit. The R & D expenditures of which costs are met with such supports will be taken into account in the calculation of the R & D deduction⁵. In this way, the expenditures made from the non-refundable funds are recognized as an economic value, or depreciated in accordance with the place where the direct costs occurred⁶.

2.3. The Recognition of the R & D Expenditures

Within the frame of the disclosures above, a sample company is given below to demonstrate how the recognition of the R & D activities and grant supports received by the firms that implement the R & D activities in details.

The example is a firm that manufactures waterproof military uniform fabrics for the defense industry and it implements the R & D efforts "to increase the waterproofing quality." Their application to TUBITAK was accepted and they carried out the following activities in this context as an annual R & D expenditure.

- The firm received a grant of TL 200,000 from the relevant institution for a year of study.
- A total of TL 120,000 was withdrawn from the raw material inventory during the year to use in the R & D activities.
- 15 people worked full-time and were entitled to a total remuneration of TL 450,000 during the year in the R & D studies.
- The machinery and equipment were purchased for TL 350,000 + 18% VAT to produce prototype fabrics, and the TL 200,000 of the amount was funded through the cash received as a grant and the rest was met from an annual bank loan with 12% interest rate.
- Strength for the waterproofing of fabrics produced in prototype was tested in a special laboratory and TL 48,000 a year was paid for the said laboratory work.

⁵ Corporation Law No. 5520; Communiqué No. 1

⁶ Kiraz Abdullah; "Tübitak'tan Alınan Sanayi Ar-Ge Desteklerinin Vergi Uygulamaları Yönünden Muhasebeleştirilmesine Bakış, www.mustafagulsen.com, entrance date 03.11.2014

- The following accounting records were recorded assuming that the expenses were made at a time on an annual basis and the payment was made from the account at the bank.

Record of receiving the grant support from TUBITAK

102. BANKS	200.000.-	/	602. OTHER INCOME	200.000.-
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The granting support and purchasing the machine using a bank loan

253. MACHINERY PLANT AND EQUIPMENT	350.000.-	/	191. DEDUCTIBLE VAT	63.000.-
102. BANKS	200.000.-		300. BANK LOANS	213.000.-

Making other expenses from firm internal resources

750. R & D EXPENSES	713.560.-	/	150. RAW MATERIAL AND SUPPLIES	120.000.-
01. Raw Material and Supplies	120.000.-		102. BANKS	523.560.-
02. Worker Wages and Expenses	450.000.-		257. ACCU. DEPRECIATION	70.000.-
03. Services Rendered from third Parties	48.000.-			
06. Depreciation Expenses ⁷ .	70.000.-			
07. Financial Expenses ⁸ .	25.560.-			

Capitalization of the R & D expenditures in the end of cost term

263. R & D EXPENSES	713.560.-	/	751. REFLECTION FOR R & D EXPENSES	713.560.-
01. Raw Material and Supplies	120.000.-		01. Raw Material and Supplies	120.000.-
02. Worker Wages and Expenses	450.000.-		02. Worker Wages and Expenses	450.000.-
03. Services Rendered from third Parties	48.000.-		03. Services Rendered from third Parties	48.000.-
06. Depreciation Expenses.	70.000.-		06. Depreciation Expenses.	70.000.-
07. Financial Expenses.	25.560.-		07. Financial Expenses.	25.560.-

- Separating the depreciation over capitalized R & D expenditure and transferring it to the results account.

750. R & D EXPENSES	142.712.-	/	08. Capitalized R & D Depreciation	
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⁷ Purchased machinery total of $350.000 \times 20\% = 70.000.-$

⁸ Bank loan of $213.000 \times \text{Interest rate } 12\% = 25.560.-$

	/	268. ACCU. DEPRECIATION ⁹ . 142.712.-
630. R & D EXPENSES		142.712.-
	/	751. REFLECTION FOR R & D EXP. 142.712.-
		08. Capital. R & D Depreciation

2.4. Tax Assessment Deduction of the R & D Expenditures

100% of the research and development expenditures exclusively made on new technology and knowledge searches carried out in the bodies of the institutions themselves are deducted from the tax base as the "R & D deduction." This deduction is indicated on the "R & D Deduction" line in the "Deductible and Deductions in the case of Gain" section of the Corporation Tax Declaration. The R & D Deduction that is not made due to the lack of earnings in the relevant period is transferred to the next accounting period. Since there is no time limitations for the said transfer, the right of deduction can be used in the first period when sufficient earnings occurred. However, increasing the amount transferred in any way (at the rate of revaluation or PPI) is not possible.

The calculated amounts of the R & D deductions can only be subject to deduction if a profit is identified in the relevant period when the expenditures are made. The deduction of the non-deducted R & D deduction amounts despite the sufficient organization profit is not possible. The R & D deduction calculated over the expenses made in the temporary tax periods by taxpayers may be deducted from the profits in the relevant period of temporary tax return.

3. THE SUPPORTS OF THE LAW ABOUT SUPPORTING THE RESEARCH AND DEVELOPMENT ACTIVITIES NO. 5746

With the R & D Law No. 5746 entered into force on April 1, 2008, the following are aimed to be supported and promoted:

- Through R & D and innovation, to generate technological knowledge in order to establish a competitive structure for the country's economy at the international level, to make innovations in products and production processes and enhance the product quality and standards,
- To increase the productivity and reduce the production costs,

⁹ Capitalized R & D Expense of 713.560x20% rated depreciation=142.712.-

- To commercialize the technological knowledge, and develop the collaboration prior to competition,
- To accelerate the entry of direct foreign investments in R & D and innovation to the country through technology, intensive production, entrepreneurship and investment,
- To increase the employment of R & D personnel and skilled labor.

This law includes the supports and promotions with respect to the technology centers (technology center businesses), the R & D centers in Turkey, the R & D projects, the collaboration prior to competition and the capital of technological-undertaking. In the coverage of the law, R & D deduction, income tax promotion, insurance premium support, documentary taxes indemnity, technological-undertaking of capital supports are defined as the items of promotion.¹⁰

In order to benefit from the R & D deduction in the coverage of the law, the organization where the R & D studies are carried out is required to have the status of an R & D center or implement a project of R & D and innovation / a project of collaboration prior to competition which is supported with the R & D funds by various national / international organizations. 100% of the R & D and innovation expenditures made in this frame, in accordance with the Article 10 of the Corporation Tax Law, under the Article 89 of the Income Tax Law, is subject to deduction when a commercial profit is identified.

The following are detailed items with respect to the expenditures which are considered in the coverage of the R & D and innovations.¹¹

Raw Material and Supplies: Includes the expenses related to all kinds of direct raw materials, auxiliary materials, operating materials, intermediate products, spare parts and similar expenses, tangible and intangible asset acquisitions which are not subject to the depreciation practice. The costs associated with the actual used actual percentage of the stocks of the raw and other materials in the R & D innovation activities are covered by the R & D innovation expenditures. Therefore, the amounts of the costs of unused raw materials and other materials in relation to the R & D activities should be monitored in the stocks account; and those used, sold or disposed of should be deducted from the stocks account.

Personnel expenses: Includes the wages and similar expenses accrued for the employed personnel with the purpose of implementing the R

¹⁰ Ernst&Young; “100 soruda Ar- Ge Teşvikleri”, www.vergidegundem.com; entrance date 01.09.2014

¹¹ 5746 sayılı Araştırma Ve Geliştirme Faaliyetlerinin Desteklenmesi Hakkındaki Kanunu Uygulama Yönetmeliği; 31/07/2008, www.resmigazete.gov.tr, entrance date 27/10/2014

& D and innovation activities made in the coverage of the law. The wages and similar expenses of the support personnel who participate in the R & D and innovation activities and whose number may not exceed the 10% of the full-time R & D personnel are also in the coverage of personnel expenses. In the case of part-time work, the time allocated to the R & D and innovation activities of the personnel is calculated over the rate to the full-time work and the wages found are considered as the R & D and innovation expenses.

General Expenses: Includes the expenses especially made in the R & D centers to ensure the continuity of the R & D activities such as power, water, gas, maintenance, communication, transfer expenses, machinery and equipment maintenance and repairs. Insurance expenses, scientific books, magazines and similar publications relevant to the R & D and innovation activities are also in the coverage of personnel expenses. However, the expenses of consumables such as bureau and stationary may not be considered in this coverage. The actual use of these expenses in the R & D center is required to be identified and documented in order to be assessed as the R & D and innovation expenditures. The shares that will be calculated on general operating expenses in accordance with various criteria cannot be considered in this context.

Services Rendered from third Parties: Includes the payments, except for the regular maintenance and repair expenses, made due to the R & D and innovation activities outside the company for vocational or technical assistance or analyzes from local or foreign institutions and other payments of this nature.

Taxes and other legal dues: Includes the taxes and other legal dues considered as expenditures of direct R & D and innovation activities in accordance with the Income Tax Law and Corporation Tax Law used in defining income or corporation tax bases. Also includes the axes and other legal dues paid for real estate directly used for the execution of the R & D and innovation activities, and other similar dues in relation to the imported goods to be used in the R & D activities.

Depreciation expenses: Includes depreciations allocated to the economic assets subject to depreciation acquired for the execution of the R & D and innovation activities. The depreciation on machinery and equipment used in other activities than the R & D and innovation activities is calculated according to the number of days of their use in the R & D and innovation activities. In this context, the assets partially used in the R & D activities apart from the assets exclusively used in these activities are also included in depreciation by law. However, here, it is important to make and document the daily accounts correctly.

3.1. The Accounts of which the R & D Expenditures will be monitored

The expenditures of the R & D and innovation activities required to be capitalized by the Tax Procedure Law are amortized through depreciation. The rate to be used with the depreciation practice is 20%. However, in case of failure with the projects or when it becomes impossible to complete the projects due to force major, it is allowed to state the amount of the expenses of the company's R & D and innovation activities capitalized in previous years.

In accordance with the R & D Law, the R & D expenditures are required to be separately accounted for to allow the accurate calculation of the R & D deduction from other production activities of the corporation. The accounts that will be used to calculate the expenditures recorded in the period are carried out on the accounts described in the Law No. 5520. The sub-account of the "Financial Expenses" shown under the 750. R & D expenses will not be included in this practice since the Law No. 5746 does not accept the "Financial Expenses" as the subject of expenditures. The financing costs for the R & D expenditures will be recorded on the 780. Financial Expenses account and transferred to result accounts and will not be subject to deduction.

3.2. Supports and Grants Provided to R & D Projects

The following provisions are stated in the regulations of the Law No. 5746, Article 8: "The supports in relation to the R & D and innovation activities received from public institutions and organizations, foundations established by law and international funds are kept in a special fund account. The amounts in this fund are not considered as income in accordance with the Income Tax Law and Corporation Tax Law in the determination of taxable income, and as the R & D expenditures in the determination of the deduction amount." What should be understood from this provision is that the companies are required to drop the supports received as grants from the institutions mentioned in the above description while they make the R & D expenditures a subject of deduction.

3.3. The Recognition of the R & D Expenditures

The supports in the form of grants in relation to the R & D and innovation activities received from public institutions and organizations (TUBITAK excluded), foundations established by law and international funds are not considered as income in the determination of taxable income of the taxpayers in relation to income or corporation taxes. To ensure this

condition, the supports received will be monitored in the accounting records under the Special Funds Account (549-Special Funds Account). The amounts in this account are not considered as the R & D expenditures in the determination of the R & D deduction amount. In this way, the expenditures made through the non-refundable funds are recognized as an economic value or depreciated in accordance with the places where the direct costs occurred¹². The taxpayers will be charged the amounts in the Special Funds along with tax loss fines and default interests when they are transferred to another account or withdrawn from the establishment (since the supports in the form of grants are not considered as income in the determination of taxable income) apart from the capitalization in 5 (five) years following the fiscal year in which this account is obtained.

Some changes are made on the same sample company which was formerly used to demonstrate how the recognition of the R & D expenditures according to the corporation Law No. 5520, and it is given below again to indicate the recognition processes of the R & D expenditures.

The example is a firm which manufactures waterproof military uniform fabrics for the defense industry and it implements the R & D efforts "to increase the waterproofing quality." Their application to TUBITAK was accepted and they carried out the following activities in this context as an annual R & D expenditure.

- The firm received a grant of TL 200,000 from the relevant institution for a year of study.
- Raw material, auxiliary material and consumables were purchased for a total of TL 152,000 during the year to use in the R & D activities. The total amount was met with the granting support.
- 15 people worked full-time and were entitled to a total remuneration of TL 450,000 during the year in the R & D studies.
- The machinery and equipment were purchased for TL 350,000 + 18% VAT to produce prototype fabrics, the total amount was met from an annual bank loan with 12% interest rate.
- Strength for the waterproofing of fabrics produced in prototype was tested in a special laboratory and TL 48,000 a year was funded from grant support for the said laboratory work.
- The following accounting records were recorded assuming that the expenses were made at a time on an annual basis and the payment was made from the account at the bank.

¹² Kiraz Abdullah; i.b.i.d

Record of receiving the grant support from TUBITAK

102. BANKS	200.000.-
08. Halkbank Tubitak Support ACCOUNT	
	549. SPECIAL FUNDS 200.000.-

Purchase of machinery by bank loan

253. MACHIN. PLANT AND EQUIP.	350.000.-
191. DEDUCTIBLE VAT	63.000.-
	300. BANK LOANS 413.000.-

Realization of the R & D expenditures in the coverage of grant support

750. R & D EXPENSES	200.000.-
01. Raw Material and Supplies	152.000.-
03. Services Rendered from third Parties	48.000.-
	102. BANKS 200.000.-
	08. Halkbank Tubitak Support ACCOUNT

Making other expenses from firm internal resources

750. R & D EXPENSES	520.000.-
02. Worker Wages and Expenses	450.000.-
06. Depreciation Expenses ¹³	70.000.-
	102. BANKS 450.000.-
	257. ACCU. DEPRECIATION 70.000.-

Capitalization of the R & D expenditures in the end of cost term

263. R & D EXPENSES	720.000.-
751. REFLECTION FOR R & D EXPENSES	720.000.-
01. Raw Material and Supplies	152.000.-
02. Worker Wages and Expenses	450.000.-
03. Services Rendered from third Parties	48.000.-
06. Depreciation Expenses.	70.000.-

Separating the depreciation over the capitalized R & D expenditure and transferring it to the results account.

750. R & D EXPENSES	144.000.-
08. Capital. R & D Depreciation	
	268. ACCU. DEPRECIATION ¹⁴ . 144.000.-

¹³ Purchased machinery total of $350.000 \times 20\% = 70.000.-$

¹⁴ Capitalized R & D Expense of $720.560 \times 20\%$ rated depreciation = $144.000.-$

630. R & D EXPENSES	144.000.-
/	
751. REFLECTION FOR R & D EXP.	144.000.-
	08. Capital. R & D Depreciation

The amount subject to deduction as of the statement period is "Wages and Other labor Expenses and Depreciation Expenses" which the firm realized with internal sources and accepted by the Law No. 5746, and the deduction amount is TL 520,000.- "Raw Material and Supplies and Outsourced Benefits and Services" expenditures made with granting support shall not be subject to deduction. However, they will be capitalized in the total R & D expense. Since the annual financial expense of the machinery and equipment purchased with a bank loan is not considered to be included in the R & D expenditures in accordance with the Law No. 5746, this item of expense will directly be transferred to the result accounts.

The details explained above will be recorded to the accounting records for information purposes only through memorandum accounts.

900. DEBIT MEMORANDUM ACCOUNT	720.000.-
/	
08. Available Total of R & D Discount	520.000.-
09. Unavailable Total of R & D Discount	200.000.-
901. CREDIT MEMORANDUM ACCOUNT	720.000.-
/	
08. Available Total of R & D Discount	520.000.-
09. Unavailable Total of R & D Discount	200.000.-

3.4. Tax Assessment Deduction of the R & D Expenditures

As it was stated formerly, the companies are required to drop the supports received as grants from the institutions (i.e. TUBITAK) stated in the regulations of the Law No. 5746 while they make the R & D expenditures a subject of deduction. This process results for the firms in two of the following different methods at the implementation phase.¹⁵

The first method is the method which is based on "Accrual Basis," and according to this method, in the period when the calculation of the R & D deduction is made, although the expenses are made in the coverage of the project, the payment by TUBITAK may not have been made then. However, the support rate in relation to the project and its budget are stated in the decision letter by TUBITAK. In the phase to calculate the R & D deduction, the amount which will be received as a grant with the rate stated in the

¹⁵ Karşlıoğlu Hüseyin.: www.denib.gov.tr entrance date:13.11.2014

support decision letter by TUBITAK will be calculated over the total expenditure remuneration which was demanded, and it will be deducted from the expenditure remuneration made and the remainder will be taken into account as the R & D expenditure. In some cases, the grant amount calculated after the said deduction process may be greater. In this case, the extra amount is added to the income accounts and then taxed.

The second method is the method based on "Collect Basis," and according to this method, in the period when the calculation of the R & D deduction is made, the amounts of the grants received from TUBITAK until then are dropped from the total amount of the R & D expenditures.

4. CONCLUSION

The R & D projects realized by the firms in general terms are supported in the frame of the Corporation Tax Law No. 5520 and the Law About Supporting the Research and Development Activities No. 5746, and the most important support focused on in two of the laws is the deduction of the R & D expenditures at the rate of 100% from the tax base. However, although the expense items which are considered as expense items appear substantially similar to one another, they indicate some differences. For instance;

- In the frame of the Corporation Tax Law No. 5520, while it may be permitted to deduct

the interests of the bank loans used in relation to the R & D activities, it is not permitted to the same in accordance with the R & D Law No. 5746.

- Similarly, while only the depreciation of the equipment acquired on the purpose of use in

the R & D activities is subject to deduction in accordance with the Law No. 5520, the depreciation of the equipment used in the activities other than the R & D activities is possible in accordance with the Law No. 5746. However, the depreciation is only permitted for the time of use of the said equipment in the R & D activities.

- In accordance with the Law No. 5520, it is mandatory to establish an "R & D Department"

and only the wages of the personnel who work in the R & D activities may be subject to deduction. In accordance with the Law No. 5746, an R & D department is not obligatory but there is a limit inferior on the number of the R & D personnel. (i.e. full-time personnel of the R & D centers is limited to 30 employees)

- Another difference is seen in the deduction of the supports in the form of grants from the

tax base. In accordance with the Law No. 5520, the grants are considered as a continuation of income and they are taxed while the grants are considered as a special fund and are not taken into account as income. However, the said grant amount is deducted from the expenses made, and the deduction amount of deduction over the tax base is calculated accordingly.

The most important point that the firms should consider is that the practices of the R & D activities are audited by the relevant units of the "Ministry of Industry and Technology" and the incentives and supports are carried out by the "Ministry of Finance." Provided supports and incentives actually directly affect the tax burden of the companies. Therefore, if the tax laws are not taken into account by the firms, while on the one hand, they receive supports and incentives for their R & D activities, on the other hand, they can be faced with a tax loss. The firms are particularly required to keep a complete record of their provable expenditures for the R & D activities, and document such expenditures in accordance with the provisions of the "Tax Procedure Law."

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