DOI: 10.32602/jafas.2020.006

JOURNAL OF ACCOUNTING, FINANCE AND AUDITING STUDIES

http://www.jafas.org

Financial Evaluation of Mental Accounting

Mehmet Özkan[a] Özgür Özkan[b]

[a] Prof.Dr., Marmara University, mozkan@marmara.edu.tr
[b] Ph.D., Certified Public Accountant (CPA), ozgur_978@hotmail.com

Keywords
Mental Accounting, Behavioral Finance, Tax, Cost, Value.

Jel Classification
M41, M49

Received
12.10.2019

Revised
08.11.2019

Accepted
20.11.2019

Abstract

Mental accounting, defined as a set of cognitive processes that allows the organization of financial activities and facilitates money management; First of all, it helps people to compare the returns / incomes in return for their expenses and the costs to be incurred, and enables them to make decisions through a different mental account for the income tax or value added tax etc. they will pay in their investments. In the process of mental accounting, self-employed taxpayers may consider the correct declaration of tax, but they can also make different tax calculations, and even obtain information in consultation with their professionals. It is known that some professionals use mental accounting themselves by helping self-employed people fondly. It is impossible today to check whether mental accounting is related to tax knowledge, business and personality traits, and the degree of association with the intended tax behavior. The conclusions have been reached by a study in this regard;

- While some taxpayers mentally separate taxes from turnover, others are not (integrators) ,
- Where there are small differences in mental accounting between income tax and VAT, and,
- Confirmatory factor analysis, tax information and mental accounting are different structures (Journal of Economic Psychology Nr. 70 , January 2019, P: 125-139).

On the other hand, mental accounting is a strategy used in controlling personal spending, consumption, and investments as a cognitive set of operations in monitoring one's financial/financial business (=activity) and transactions. These are classified in mental accounts, meaning that individuals monitor all of their expenses separately and include the process of personal decision making, correction, control or abandonment of decisions. In particular, when multiple options are encountered, they are evaluated jointly-the results of different decisions are combined or evaluated separately. This depends on the emotional and intellectual structures of the person, along with the risk and expenditure criteria that the person undertakes. Because the decision is between sentimentality and thought, and results in rational-real or irrational-non-real results. In fact, they have a positive relationship with education, financial knowledge, money management and tax awareness in mental accounting. A consumer or investor/businessman in the decision process, including most accounting and Finance, Management Accounting, Financial Accounting and tax accounting are associated with, and are affected by them and affect them. These aspects are quite interesting.

1. Introduction

To date, many studies have been done on behavioral finance; mental accounting has also been included in the coverage. Behavioral finance, in written sources, has often focused on individual and Securities Investors issues. Behavioral Finance was born as a result of insufficient conjecture that traditional financial models were rational when investors made investment decisions, aimed at the highest benefit, markets were active, investors had similar expectations and the prices of securities were formed coincidentally. Because, these models have been criticized for not being able to fully understand the events occurring in the market. **(Gul,Eksi,**&**Surme, 2017)**

In other words, Behavioral Finance adopts the approach of non-rational or limited rationality as opposed to rational decision-making models, emphasizing that there are regularly repeated psychological biases that affect the limited rational and non-rational decisions of investors. Psychological biases are valid for all educated and under-educated investors, often resulting from errors of perception caused during the acquisition of knowledge. The limited awareness of human beings leads to psychological biases, especially in the case of decision making under uncertainty. **(Demir, Akcakanat,**&**Songur, 2011)**

On the other hand, both company managers and investors who invest in these companies are not always likely to make completely rational decisions and are likely to make mistakes. Here, "**Behavioral Financing**", which benefits not only investors but their managerial decisions from the fields of psychology, sociology and anthropology, has come to be used as a new approach. Human beings are not **homo economicus**, while making many decisions in their daily lives, is under psychological and sociological influence, making decisions that only consider their own interests, and accepting other human factors as constant. Naturally, it is affected by many economic factors. For these reasons, individual investors and the behavioral factors that affect their investment decisions and their factors are the main subject of investigation, behavioral finance is an area that needs to be focused on and is increasing in importance with each passing day**.(Aytekin**&**Aygun, 2016)**

Mental accounting refers to the tendency of individuals to divide their monetary assets and the sources of these monetary assets into separate accounts based on various subjective criteria from different perspectives. People/individuals using mental accounting will be able to assign different functions to each group of entities, and as a result they will be able to exhibit irrational, non-rational and harmful behavior without being aware of it. People also tend to try the mental accounting bias in investing. For instance, many investors divide their investments between safe portfolios and speculative ones on the premise that they can prevent the negative returns from speculative investments from impacting the total portfolio. In this case, the difference in net wealth is zero, regardless of whether the investor holds multiple portfolios or one larger portfolio.

The only discrepancy in these two situations is the amount of time and effort the investor takes to separate out the portfolios from one another.**(Reiff**& **Phung, t.y.)**In addition, psychological, sociological and anthropological behaviors are the most important factors in the decision-making process, both costs (here submerged cost and opportunity cost) and incomes/returns (asset and investment returns, securities returns). In light of the costs and returns of mental accounting, profit and loss analysis enables more rational decisions to be made here. Because, although many people use mental accounting, they may not realize how irrational this way of thinking actually is. For example, people still have a special "money jar" or fund reserved for holidays or a new home while carrying significant credit card debt. In this example, money-debt in a mutual fund is perceived differently from the money that the same person pays into their account, even though the separation of funds from debt repayment increases interest payments and reduces one's net assets. In simple terms, saving on a cup with little or no interest rate is unreasonable (and harmful), while credit card debt increases by 20% annually. In this case, the most sensible action, rather than saving for a holiday, would be to use all available funds to pay off the expensive debt. **(Phung, t.y.)**

It seems that although mental accounting and behavioral finance have integrity with each other, they are divided in terms of relative evaluation rather than absolute evaluation. In other words, it is more complex to manage one's own assets and their resources, and to do so tends to create many fictitious accounts. These accounts are considered subjective/fictional. In particular, during the decision process, mental accounting shows less appropriate behavior than it actually does and moves between thoughts and emotions. This causes non-rational perceptions to be created and people to behave carelessly.

In fact, although this seems easy enough, the answer to the question of what the reason is why people behave like this is that **the personal values (meaning) people give to certain assets they own are different.** For example, this "important" account remains untouched, even if it brings additional financial benefits, believing that the abandonment of money for a new home or the college fund of their children is very "important" for them. **(Phung, t.y.)**On the other hand, mental accounting has a very different place in terms of tax. The transactions made in the Mental accounting process both involve the events that cause tax and are not included in the scope of tax. The tool is used and investment income will be taxed if the transaction is an investment, but a personal investment in the process; in other words only a person's thoughts and feelings, depending on the purpose of winning does not carry directly, but indirectly causes the creation of the income in case there is an event that this event cannot be taxed due to the formation in the mind.However, indirect taxes or fees are included in the payments of the transaction. For example, in the 10 TL paid for cinema or theatre tickets, THK share is 0.05 TL, entertainment tax is 0.84 TL and VAT is 0.74 TL and the total tax amount is 1.63 TL.

In this study, the concept of mental accounting was first discussed and then the tax relations were examined by making financial evaluation.

2. Concept of Mental Accounting

Mental Accounting, which is quite new in business literature; it is a process in which people encode, classify and evaluate economic outcomes; it is about remembering and perceiving various expenditures, and this is a way to make sense of the world. **("Mentalaccounting",t.y.)**

Early studies in judging and decision-making (Kahneman, Tversky, Shefrin, and Thaler) defined mental accounting as a set of cognitive processes for tracking one's financial activities, a strategy for defeating self-control problems in spending and consumption. **("Davranissal Finans", t.y.)**

The most obvious notion of this theory, according to Thaler, is the assumption that transactions are classified and organized in mental accounts with specific budgets. These accounts are divided into a separate spending category, such as entertainment, rent or dining. However, mental accounting also describes the basic cognitive decision processes in the regulation and preparation of a given decision. For example, when faced with multiple potential outcomes, individuals may evaluate them jointly, i.e. combine different decision outcomes or evaluate them separately, i.e. separate different outcomes. Depending on how sources of income and spending opportunities are perceived, categorized and labeled, individuals ' spending decisions and willingness to take risks can vary greatly. (**Davranissal Finans Anormallikler, t.y.)**

The theory of mental accounting (Heath et al., 1995, Moon et al., Helion and Gilovich, Langer and Weber Barberis, Huang, and Lim, Seiler, and lane Things, Rayner), irrational behavior, price perceptions and consumer behavior environments, such as the use of different payment methods that have been used to describe a wide variety of lottery selections, stock market investments, real estate investments and applying for loans. However, keeping mental accounts often serves to facilitate money management. Accordingly, a survey study from the Netherlands found that mental accounting was positively associated with education, financial knowledge and money management in households (Antonides, de Groot and van Raaij). Money management may also be related to tax compliance, but research on the role of mental accounting in taxpayer behavior is relatively scarce.**(Olsen, Kasper,Kogler,&Kirchler, 2019)**

Further information will be given on this subject (section 2.3) and the development of mental accounting from a tax point of view will be discussed.

2.1. Definition and Aims of Mental Accounting

According to behavioral finance, people perceive 2-2.5 times more harm than the same level of profit, and this phenomenon creates additional potential for distortions in mental accounting. This explains why investors are systematically deceiving themselves to avoid feelings of concern about losses. For example, when managing its own securities account, the investor enters the loss positions that are too heavy on black and focuses on a good commitment in black. Or the loss is offset by paper in the profit zone until the deficit is "solved". The overall return of the portfolio is not interesting, especially if there is a loss. The investor sees the scope of the assessment in such a way that it does not have to face negative emotions arising directly from the losses. This "hedonic-pleasurable framing," which ultimately amounts to nothing more than a consciously motivated personal deception to avoid feeling bad, takes precedence over rational assessment of the overall portfolio. An experimental study found that when people shop with gift vouchers, they use mental accounts other than cash or credit cards.

To keep regulation in mind, classifications help a lot. Even in financial matters, people tend to an intuitive account: x francs can be spent monthly for evening entertainment, y francs should be made available when filling the fridge with enough ingredients. **("Mental Accounting", t.y.)**

In theoretical terms, a rational investor should act primarily according to the performance of total assets. Irrational perceptions based on mental accounting distract attention from these views, and understandably, the fact that every small problem made/experienced is too complex and costly to contemplate the possible consequences for their total existence can undoubtedly cause too much trouble. Therefore, the investor must invest in specified periods during which the position of the total assets will be regularly reviewed. For example, at the end of a month or quarter, it may take time to become aware of all asset positions. Even if unpleasant emotions cause you to face your own losses, the investor has no choice. Learning how to deal with this by seeing the general situation clearly is as important as it is necessary to make strategic decisions without worry.**("Mental Accounting", t.y.)**

2.1.1. Definition of Mental Accounting

Mental accounting **("Mental Accounting", t.y.)**(Comptabilité Mentale in French, MentaleBuchhaltung in German) is the concept that Thaler used for the first time in the business literature; "**Mental accounting refers to people/individuals as having a tendency to encode, classify and evaluate economic results by grouping their assets into mental accounts that are**

not able to be changed in large numbers."**(Bayar, 2011)** In other words, in mental accounting, individuals do not care about changing accounts and the effects of interaction/relationships by monitoring their wealth in separate mental accounts. **(Bayar, 2011)**

2.1.2. Aims of Mental Accounting

Mental accounting is a process of mental classification according to subjective criteria or separation of results by grouping mentally; the results are evaluated mentally in a single account or in different accounts. Thus, different behaviors are exhibited depending on the decision taken, but often false / negative results are achieved.**("Mental Buchhaltung",t.y.)**

Decision makers tend to monitor each investment in a separate mental account, which is the basis for separating different investments into separate accounts and thinking of each alone. Thus, the reference point in each mental account determines whether the current position should be seen as gain or loss. Thus, each investment is treated separately, and interactions are ignored.

This mental process can negatively affect the investor's wealth in several ways. First of all, mental accounting makes it possible to apply other psychological bias such as predisposition effect. Selling the losing stock closes the mental account and triggers remorse. In addition, mental accounting causes investors to behave irrationally differently to different amounts of money based on classification (for example, the way of obtaining money of work, inheritance, gambling, bonus etc. or the planned use structure of money for leisure, need etc.) as mental.

In their studies, Kahneman and Tversky asked the subjects the following questions: **(Kurz, 2018)**

-Status A: you booked the $ 10 ticket. When you arrived at the theater, you noticed that you had dropped $ 10 from your purse. Assuming you still have enough cash, would you buy the ticket?

- Status B: you decided to see a play where entry was $ 10, and you bought a ticket for $ 10. When you arrived at the theatre, you realized you had lost your ticket. Tickets are still sold at the box office for the same price; would you buy another ticket?

Economically, the two options are the same; in both cases you realize you've lost $ 10 when you arrive at the theater, and in each case, you're faced with a decision on whether to re-ticket to watch the play or go home. Empirical research shows that the vast majority of subjects received booked tickets in the first case but did not enter the play in the second case. **(Kurz, 2012)** It is easy to explain the said discrepancy in behavior. In both cases, decision makers hold a "theatre account" and a "general cash account." Watching the play suggests a positive value in the form of having fun and enjoying the art recorded in the credited part of the play account during the play.This value is deducted against the ticket price. In the first case, the loss of $ 10 is credited to the cash account. This decrease in the balance does not affect the imaginary balance of the play account. Therefore, it is preferred to watch the play. In the second case, the price is recorded in the credit section of the play account after arriving at the theatre. Buying a second ticket would increase the debt portion of the account, so the cost of the theatre play would increase to $ 20. The reluctance to buy a second ticket may result from this.**(Bayar, 2011)**

In the light of these explanations, the objectives of mental accounting can be considered as follows:

- Follow-up of money-related decisions to establish a model for the evaluation of future financial decisions,

- Analyzing consumer behavior in detail and determining when it may violate economic principles,

- Determination of psychological (emotional and intellectual) factors that are effective in the decision process and a better understanding of the underlying causes of people's mistakes,

- Having the structure that can play a key role in determining which reference is used in tax compliance decisions and its use in explaining various aspects of taxation, etc.

Economic violations are as follows;

- The Unexpected Arrival of Money,

- The Amount of Money You Can Afford to Lose .,

- Safety Margin,

- Profit from Games of Chance:

- The Idea of Money Being Spent,

- Different Pricing of Assets with The Same Value. (Atik,Yilmaz,&Kose, 2018)

2.1.3. Meaning and Importance of Mental Accounting

Mental accounting as a meaning-giving approach to this world, as in some other cognitive processes, can foster biases and systematic behaviors from rational, value-added behaviors, and its results are fairly robust. **("Mental Accounting",t.y.)**

One of the events we encounter in our daily lives is the use of credit, credit card resources. For example, Mehmet Bey requested to use car loans from Garanti Bank. After the agreement on payment and maturity was reached, the loan agreement was signed and the purchase of cars took place, but at this time one of the bank employees was a friend of Mehmet Bey and a credit card was also arranged for him. Mehmet Bey pays the car loan installments regularly and without interruption.

But one day he had to spend an emergency and for the first time he used his credit card to cover his expenses. The account cut-off dates of both loans are different and, incidentally, the car loan is paid before the date. Later the following month, Mehmet Bey deposited the installment of his automobile loan to the bank. The credit card payment hasn't arrived yet. And in his opinion, the car loan payment amount is higher than the credit card payment and the interest rate is lower. Therefore, because the amount to be paid is high, the interest amount calculated is a high amount, even if the rate is low. On the other hand, the amount of credit card payment is small in amount; no matter how high the interest rate is, the amount is less than the interest rate on the car loan. According to this way of thinking, Mehmet Bey will be able to pay his debts on time with the income he will get from his salary and occasional additional work and will be free from psychological discomfort in case of deceleration. Because in the family environment where he grew up; if there is debt, first of all, that debt should be closed immediately.

However, despite all these mental calculations, according to the bank's own mental understanding, the car loan installment is primarily deducted from the credit card debt by claiming that the interest on the loan is high and the rest does not cover the entire automobile loan. Therefore, the bank warned Mehmet Bey with a letter. Because according to the bank,

Mehmet Bey has been freed from paying higher interest on the loan than proportionally. However, it is the opposite for Mehmet Bey. As a matter of fact, Mehmet Bey's own account system was broken, and he could not understand why the bank had made such an application even though he had no instructions in the bank and he decided never to work with that bank again. And in addition, when that bank came up, it announced to everyone around it that the bank was not a bank and that it was doing usury, that it did not care about the client's wishes and desires, and that it acted according to its own mental structure. Because Mehmet Bey had to choose between his feelings and thoughts regarding his bank and credit accounts.

From this perspective, the intuitive mental accounting structure, as a form that simplifies the complexity in the decision process, regarding using a car loan and credit card use behavior and attitudes Mehmet Bey himself and the bank's mutual dependence and the relationships between conscious and addresses the consequences of these relationships. **However, the most important issues here; "all people are more or less curious, living is an economic virtue, the same amount of gains and losses in the meaning of the person varies from person to person, and most importantly, the assets of the person is sacred and the predictions of wealth" concepts are ignored.**

People tend to collectively store all of their mental projects or decisions. Instead, it is stored and managed mentally in independent and isolated accounts. In terms of investments, it means that these investments are often isolated and not seen in the portfolio context, regardless of possible dependencies **(Kurz,2018).**

2.2. Financial Evaluation of Mental Accounting

According to research in behavioral finance;

- **Homo economicus refers to the human image of a Sunday participant acting rationally and is at the center of neo-classical capital market theory, forming the basis of models. The concept is a simplified outline of man with the aim of explaining and predicting social and economic developments.**
- **The characteristic features of Homo economicus are that it manifests itself as follows,**

- As a consumer, conscious, sensitive to his environment, (sober) , omniscient, a strictly rational thought and non-emotional, and always thinking of his own interests,

-As a businessman and investor, striving to maximize profits-returns.

Actions that take place always reflect the optimum state of valid decision alternatives. Among the action alternatives available at all times, the alternative that provides the most individual benefit is chosen. Furthermore, Homo economicus has all the information about decision, an extremely high reaction time, error-free information perception, and information processing. **(Kurz, 2018)** In addition, behavioral finance is an integration of classical economics and finance with psychology and decision-making sciences**.(Jordan, 2004)**In other words, economics, finance and psychology are effective in decision-making and determine the financial behavior/activities of companies.

Studies in this context show that, contrary to the classical approach to finance, investors do not act “rationally” and do not optimize their preferences, such as cognitive limits, psychological biases, uncertainty, and past experiences cause investors to behave in investment and financial decisions without rationality and in control of intuition and feelings.

Behavioral finance has been developed as an alternative to the traditional approach accepts that people are “rational”, and examined the effects of human psychology on investment decisions and asset prices in irrationality and intuition, habit and past experience of risk and uncertainty plays an important role in making decisions when situations occur and investors are affected by psychological and sociological factors that he claimed**.(Sansar, 2016)**

It seems that while very new, behavioral finance has the same perspective as accounting in bringing a whole new understanding to the world of finance and examining the decision process by taking into account psychological, sociological and anthropological behaviors. Because, according to the mental accounting approach, emotions and thoughts are important in financial decisions, investments are grouped together to calculate the place in the mind, and this position is evaluated separately for each position and cost and profit and loss are compared.

2.2.1. Relationship Between Accounting and Mental Accounting

There are several factors that influence consumers ' decision to buy. These;

- **Psychological factors -learning, motivation, perception, attitude and personality-**
- **Socio-cultural factors -counseling groups, social class, family-**
- **Personal factors and,**
- **Cultural and demographic factors -age, gender, education, geographic settlement and income-**

During the decision process, consumers can gather information from sources about the options and decide according to their habits without thinking about the option that would be good for them. At any stage of the purchasing decision and process, the consumer can opt out of buying and make decisions that are not rational in circumstances that are judged to be anomalies. It is able to make routine, limited and intense decisions according to its level of interest, as well as reactionary decisions that develop momentarily. **(Akci, 2017)**

These decisions can bring wrong and harm. So many emotions and thoughts play an important role in financial decisions because, when it comes to investing in mind that all accounts are bundled together and evaluated separately, each position is seen as a separate account with the cost price of each position in profit or loss whether or not care is taken.

This situation cannot be hidden in the back yard of the mind-the mental back yard, the error becomes apparent when the loss occurs, and it shows why many investors tend to stay in desperate positions of loss for too long. Because while losses outweigh profits, in the overall image of the portfolio, winners compensate for losers, and rarely can a few loss positions occur in individual winners. **("Buchhaltung", t.y.)**

The most interesting issue here is the emotional and intellectual behavior that people create in their minds. "**Mental Accounting** is a set of Cognitive, Affective, and social operations used by the individual to assess a financial situation or event, classify it according to previously encoded data, and record its results.

The individual who interacts with the economic environment makes decisions about many financial transactions such as buying, selling, saving in the decision-making process. A financial decision made by the individual is not just about the information available in the market, it is about how that information is perceived by the individual and how it is passed through its own cognitive filter."**(Atik, Yilmaz,&Kose, 2018)**The evaluation of an event in Mental accounting is a decision making process based on the way the event is perceived in the human mind by putting it into different patterns that it has created in the brain and matching it with these patterns; the individual thinks that he has made a logical decision. However, social, affective and cognitive biases that affect the rationality of the decision can cause the individual to exhibit irrational behaviors. Mental accounting people showed deviations from rational behavior in the decision-making process, and by examining sensory and cognitive biases created in the mind in a scientific and systematic by planning accordingly determines the limits of the category, it undertakes the task of monitoring the process.**(Atik, Yilmaz, &Kose, 2018)**

With this aspect; "Currency exchange transactions of a financial nature with partly similar economic events systematically diagnostic/grip, collecting, recording, classifying, and summarizing in a meaningful way by interpreting the results of commercial transactions and has a personality that is accessed by partners, managers, and other persons who are interested in the personality (interest groups), which provides useful information appropriate for the purposes of art, science and practice."It overlaps and resembles accounting as defined in its format. But there is no sentimentality in accounting.

Mental accounting has three main components: perception of alternatives, labeling/coding in the mind, and frequency of evaluation of accounts held in the mind.

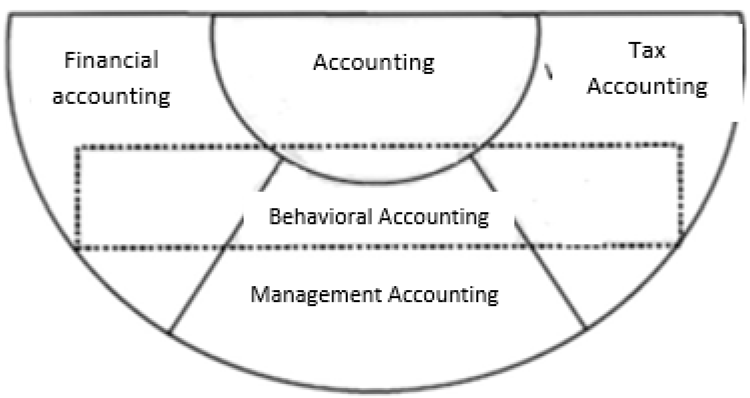
- Perception of Alternatives: It is how the outcome of each alternative is perceived by the individual or the investor, how it is experienced and how the decision is evaluated. In the accounting system created in the human mind, each alternative is compared with the data related to the same event in the past and the new situation is transformed into new inputs for the future under the light of the past inputs. The decision of the individual or investor may change according to which mental account the person evaluates the event.

-Labeling: The second component relates to how funding sources and uses are labeled in the human mind. Labeling is the process in which an individual keeps each financial activity in a separate mental account and transfers the activities into specific categories in his or her mind.

Where the money comes from and how it will be used for the individual's expenses and investments affects the mental accounting system. Sources and uses are monitored in a separate mental account. Food, clothing, housing, etc. spending and consumption are categorized in the human brain, looking at the state of gain or loss, and sometimes depending on the budget limit of the individual decision labeling (coding) is made. Therefore, expenditures, sometimes explicitly and sometimes implicitly, are grouped into housing, food, clothing, investments, etc. in the mind of the individual.

- Valuation Frequency: The third component of mental accounting is the frequency with which mental accounts are evaluated. Mental accounts are categorized as daily, weekly, monthly, etc. and are defined at a narrow and wide angle. Because the frequency of evaluation of some accounts is perceived as more important than other accounts, the frequency of evaluation may be greater. **(Atik,Yilmaz,&Kose, 2018)**In addition, in the mental accounting decision process, accounting and management accounting in general are associated with financial accounting and tax accounting, both affecting them and being affected by them. Mental accounting and the relationships between these disciplines are shown below.(**Taschner, 2019)**

Figure 1. Relationships Between Mental Accounting and Other Accounting Disciplines



2.2.1.1. Relationships Between Mental Accounting and Costs

In the mental accounting approach, people place importance on relative values rather than absolute values, determining the value of the asset owned not only by the value of an object itself (the meaning or pleasure it carries), but also by the means of income-transaction and the opportunity cost it carries. As is known, each asset has its own value, and the asset is in the form of movable or real estate or rights, although the criteria used in its valuation may vary, the most important element in determining this value is the cost value of that asset.

Cost value is governed by the heading "**Acquisition Cost**" at **Tax Procedure Law (TPL).Article no/262** and "**Production-Manufacturing Cost**" at **Article no/275** in our laws and regulations have also been made in Tax Procedure Law (VUK), Turkish Commercial Code (TTK), Capital Market Board (SPK), Income Tax Law (GVK), Corporate Tax Law(KVK) and Turkish Accounting Standards(TMS), and Turkish Financial Reporting Standards (TFRS).

These regulations have not been examined because the tax dimension of mental accounting is a separate research subject. This part of the study will be examined in terms of mental accounting. In our opinion, the decision-oriented cost classification is the most important in terms of mental accounting.

Cost types for decision;

- **Current costs,**
- **Additional costs,**
- **Opportunity-alternative costs,**
- **Sunk costs,**
- **Controllable and non-controllable costs,**[1]

In terms of Mental accounting, the current costs (the costs that determine the decision) that are effective in the decision process are sunken and opportunity-alternative costs.

Sunk cost is the costs that are not affected by a choice between options in the decision-making process. These costs are void in decisions made by managers. Costs that are sunk usually belong to a decision made in the past and have no impact on decisions made today and have been recognized in the past.

The **opportunity-alternative cost** is the net benefit of giving up the best alternative, which is not chosen because of the choice made, is the cost of the choice made. Opportunity costs for abandoned or unfulfilled options cannot be accounted for due to the inability to identify realized gains and transactions (the missed gains are difficult to identify). People have to choose between choices, especially when making decisions, and their knowledge, experience, understanding, competence and education levels are the most important factors that determine their choice.

However, decisions also occur under the influence of both intellectual and emotional factors, and in particular overconfidence -the person thinks and believes himself to be more intelligent and capable- can be cited as an example. In this case the person is optimistic and acts faster than others in terms of investing with the awareness that it is unnecessary to be a genius for a successful investment or decision. However, while this optimism is not always a bad situation, the investment or decision made can be costly. But self-control may have been forgotten, acted hasty rather than quick, and what happened in the past is not remembered. This leads to misbehavior and wrong decisions and is the main cause of harm and loss. More importantly, forgetting the control means

[1]**Controllablecosts**arecosts at theinitiative of a responsibilitycentermanagerand can be recognised. Costsoutsidetheexecutive'sdecisionandresponsibilityarea (forthemanager) are "**uncontrollablecosts**".

A change in theoperatingvolumethatoccursovercosts, oranychange in total coststhatmayoccur as a result of a choicebetweenalternatives, are**additionalcosts**.

that the mistakes are re-experienced, and the lessons are not learned. On the other hand, the highest yield option cost given up-opportunity costs missed. Because our mind sends messages that the investment we make or the decision we make is not a very bad decision, perhaps not as much loss or harm as thought. (**"Mental Accounting"**t.y.**)**In other words, the decision is made psychologically reasonable and the mistakes made are erased or forgotten.

Here, it is imperative that we evaluate all of our experiences in the decision process together because mental accounting brings with it many pitfalls and measures must be taken to avoid falling into them. **("Mental Accountıng", t.y.)**

In other words, since we do not act by seeing the entirety of the decision's investment picture, the monetary resource we use as a result of our investment is a sunk cost for future periods. Another way to extricate yourself from this situation is to link the failure that may occur in the future to a pre-probable and unlikely cause, rather than overconfidence. Thus, there will be an explanation even if a potential cost is a sunk cost. (**"MentalAccounting", t.y.)**

Parallel to these, people often do not fully consider opportunity costs, but are susceptible to sunk cost fallacy. Because, in terms of mental accounting, people treat money differently depending on factors such as the source of money and the purpose of use, rather than thinking of it as "bottom line" as in official accounting, the underlying hidden reason is the fact that all money-monetary resources can be interchanged and have no labels. In other words, when people spend money (or time, efforts, or other resources) by creating separate mental accounts instead of having a large pool, they follow their goals based on the mental account they have created separately.(**"Mental Accounting", 2017.)**

In this regard, also, due to the unconscious or subjective selection of the accounts that people create in their minds, sunk costs should not be taken into account in the decision process, accounts should be distinguished as cost and income accounts and corrupt decisions should be avoided by avoiding faults and mistakes. Because rational decisions in interconnected situations require a common assessment. This can be prevented by dividing it into mental calculations. (Definition Mental Accounting) That is, people in their logic classify money by looking at where it comes from, where it is stored and how it is spent, and the most important point is: "Money is money. Time is time. **One minute is a minute, and 1 dollar is 1 dollar."** Human logic will get used to this in time by using the mind to experience more rational errors, by getting rid of the logic errors, and individuals will achieve the best with scarce resources by maximizing the benefits separately in achieving the goals. **(Erserim, 2006)**

2.2.1.2. Mental Accounting, Relationships Between Benefit and Value

Financial behavior includes the value and benefits created. Although costs are also taken into account in evaluating the relationship between value and benefit, it is accepted that how values and benefits are perceived in relation to each other has an effect on impact, cognition and behavior. In mental accounting theory, framing means that the way a person subjectively frames a transaction in their mind will determine the utility they receive or expect.

This concept is similarly used in prospect theory , and many mental accounting theorists adopt that theory as the value function in their analysis. It is important to note that the value function is gains (implying an aversion to risk) andfor losses (implying a risk-seeking attitude).This can influence the way people evaluate transactions.**("Mental Accounting", t.y.)**

"Given this framework they can either view the outcomes jointly, and receive Value(x+y), in which case the outcomes are integrated, or Value(x) + Value(y), in which case we say that the outcomes are segregated.Due to the nature of our value function's different slopes for gains and losses, our utility is maximized in different ways, depending on how we code the four kinds of transactions x and y (as gains or as losses):

- Multiple gains:x and y are both considered gains. Here, we see that Value(x) + Value(y) > Value(x+y). Thus, we want to segregate multiple gains.
- Multiple losses: x and y are both considered losses. Here, we see that Value(-x) + Value(-y) <Value(-(x+y)). We want to integrate multiple losses.
- Mixed gains:one of x and y is a gain and one is a loss;however, the gain is the larger of the two. In this case, Value(x) + Value(-y) < Value(xy). Utility is maximized when we integrate a mixed gain.
- Mixed losses: again, one of x and y is gain, the other is loss; however, the loss is larger than gain. In this case, Value(x) + Value(-y) > Value(xy).The mixed losses are never desired.

("Mental Accounting", t.y.)

Another very important concept used to understand mental accounting is that of modified utility function .There are two values attached to any transaction - acquisition value and transaction value. Acquisition value is the money that one is ready to part with for physically acquiring some good. Transaction value is the value one attaches to having a good deal .If the price that one is paying is equal to the mental reference price for the good, the transaction value is zero. If the price is lower than the reference price, the transaction utility is positive. Total utility received from a transaction, then, is the sum of acquisition utility and transaction utility. **("Mental Accounting", t.y.)**

Mental accounting is very closely related to the quality of decisions taken in terms of value and benefit and also examines the irrational-psychopathic behavior of people. Because lies and recklessness lie at the root of these actions. Psychopaths never care about others, and they can end their relationship for no reason, and they are happy with it, in other words, they are no different from selfish monsters.

Because they are not disturbed by the burden of mental accounting, the value and benefit for them is the only option that occurs in their minds and never changes. Lies are the tool they use the most and their lies give rise to other lies. However, even if people act psychopathic, they can change their minds in honesty by reviewing the facts and getting rid of confusion, contradictions and doubts. Wanting/committing to tell the truth is the most natural way to free themselves from mistakes. **(”Mental”, t.y.)**

2.2.1.3. In Terms of Investors

Money in terms of classical functions,

- **is a means of exchange or purchase.**
- **is a unit of account tool.**
- **İs a deposition-saving tool.**
- **is a tool of economic policies.**
- **is a debt payment-borrowing tool.**
- **is a liquidity tool.**

However, money is also the most important force, as well as being able to be moved, durable-concealable, generally accepted, divisible (divided into small and large values), not being imitated, homogeneity, being standard, and gaining value over time**(“Para”, t.y.)**, because money is the blood of economics from the macro economy perspective.

This is true for investors and shareholders, and money is also the most important capital and economic power. These properties of money are the same in terms of the interest groups of the whole business. But it has a more important and different meaning for managers, shareholders, lenders and investors. That is to say;

-For managers, money is the measure used to account for partners and owners at the end of business periods. Monetary measure is essential in the valuation of how and where resources are used, what they are used for and how they are used. In this respect, managers are the key to the decisions that must be taken for the firm to succeed. Because in institutionalized firms, partners and shareholders do not interfere in management. But in family companies the manager, partner/shareholder is the **same person**.

-For partners/shareholders, dividends to be distributed are important. They get more profit-share gains if the activities are going well. Gains are expressed and paid in money. In addition, if the financial structure of the company/firm is strong and the gains are high, the shares gain in value if this raises the firm's value to the well-being of the shareholders.

-Debt-lenders and bondholders receive a fixed payment regardless of the course of the company. However, the main and interest payments of the debt are made on time and are repaid in money. Therefore, the liquidity of the company has the most important role here and the liquidity measure is money.

-For investors, besides the importance of the monetary return on the investment, it is important to the extent to which the company is affected by the sectoral macro and micro dynamics. Growth potential, opportunities and risks, then place in the corporate sector, competitors, strengths and weaknesses, cost and price management and strategies the company's short-and long-term investment strategies program and budget plans related to them, the sector that are the subject of legal regulations, etc it is noteworthy that matters.

a) The Factors that Determine the Investor's Decision in Terms of Mental Accounting

In the mental accounting approach, (from the perspective of behavioral finance) the factors that determine the decisions of the investor are: **[Gul,Eksi,**&**Surme, 2017]**

-Overconfident, overconfident investors think that the information they have is more valuable than the information of other investors and that the return they expect from their investments will be greater. The self-reliant investor is confident that his investment will perform best.

-Over-optimistic investors believe that everything will be fine and the results will be according to their wishes. They also think that good things happen and bad things happen to others.

-**Regret avoidance** is based on the understanding that persuading the concept to sell winners is easier than convincing the losers to sell. According to this understanding, investors hold on to their depreciating investments for longer periods of time. But they take the investments they earn out of their hands faster.

-**Loss avoidance** assumes that an investor's sadness when he loses a thousand pounds from any investment tool is more than his joy when he gains from an investment of the same value.

-In the **tendency to represent**, investors tend to make decisions by acting, according to certain biases in the investment decision making process. In this case, investors prefer the investment vehicle they feel closer to when making any investment decision.

b)Investor Decisions In Terms Of Mental Accounting

Money does not mean "**Money is only money**." or "**Euro is only Euro**." in normal conditions for people, both as liquidity, as capital provision and in terms of functions, it means different meanings.In other words, depending on whether they win a Franc (or more) from the lottery, work hard, speculate on the stock market, or inherit from frugal aunts, the same amount of money has very different meanings and tends to have different mental accounts.

In Hobby speculation, for example, the person tries various options of gambling with 5000 francs. He is very lucky and the value of his options rises to 20,000 francs. Unfortunately, as he waits for the right moment to realize his profit, prices suddenly improve against him, making his options worthless.

How much money has this person lost here? The answer to that question is only 5,000 francs? Ostensibly in this case he and many more investors might say that's what his loss was. Here, however, the person opened a mental-speculative account of 5,000 francs and lost 5,000 francs. In reality, the economic loss is the same as the loss of the person who invested 20,000 francs and lost it all. **(Tages&Anzeiger, 2012)**

In terms of Mental accounting, when it comes to investing, investors separate each of the accounts in their minds for a separate position and evaluate each position based on their costs and earnings. In particular, cost price and profit-loss status play a very important role in this valuation. This explains the tendency of many investors to stay in desperate loss positions too long, and the error becomes apparent when the loss occurs. However, looking at an overall view of the portfolio would be a more rational approach. Because, winners usually make up for losers, and rarely individual winners also make up a few lost positions. Therefore, for decisions, only the future prospects of current security must play a role, completely independent of the entry price. The trick to simplifying the loss-realization process is to consider selling losers ' shares and buying a new stock as the only option to a more interesting investment opportunity, not just two separate transactions in the corresponding mental accounts.

The overall outlook also helps overcome the often frustrating price fluctuations, particularly in equities. In fact, in terms of behavioural finance, investors don't enjoy the harm at all and are more upset. Those who constantly monitor the price performance of each position think they are more exposed to it in the financial markets and more stressed than an investor who has seen the overall development of their portfolio over a long period of time. **(Tages&Anzeiger, 2012)**

Accordingly, if investors have a long-term investment horizon, it may prove to be best to invest in equity investments in the long term. But mental accounting plays a game for too many investors here. For something as important as pension funds provision, most investors tend to be overly cautious despite an investment horizon of 20 years or more. If an investor thinks that most of the Swiss public in the second and third column already have a very large share of fixed-income investments, then the reluctance to share makes less sense. To lose some of their shyness, the perhaps disappointing development of the stock portfolio in recent years could be compounded to achieve a much less volatile overall outlook than pension funds.

On the other hand, an unexpected gain can push the investor into being careless and say, "**How do you win? How to solve this?**"according to his motto, it often causes him to gamble with that money. Even surprising and rapid successes in the stock market cause investors to take unreasonable risks with easy-won gaming money.

However, it should be considered that there can always be rapid and unexpected losses, not just in the stock market but also due to illness or job loss. In this case, a proper general view of assets is also superior to mental individual account management. Accounting should be written on paper, not in mind. **(Tages**&**Anzeiger, 2012)** **Because; "there is no undocumented record in accounting and it is written in the document" rule applies at all times and for all transactions.**

Getting in and out of an account in terms of people's cash assets is very complicated in everyday life. How do you relate the price of 1.75 euros/piece for butter, 1.55 euros/litre for petrol and 2,348 euros for a holiday trip to Asia?

Therefore, as with companies, cash flows are classified and different accounts are allocated for each income and expense. Thus, budgets can be created for different areas and different accounts can be kept. This gives people the ability to work with and control many people in a system.

However, this is not the case with companies, and bad developments for them are in question. Because, while a much-needed expenditure cannot be made, money is spent without hesitation in another area. At the end of the year, unnecessary expenditures are made only for the purpose of consuming the budget. This means that those who do not consume their budget need less**.("MentaleKontofuehrung", 2018)**

The idea of making basic budgets makes sense, depending on whether it reduces complexity and facilitates control. However, since anything that works unconsciously will be critical, it is imperative that conscious decision be made by considering the system as a whole. Therefore;

a)You should be aware of the existence of your mental accounting and have informed budgets or accounts created for important areas.

b)Continuing expenditures, savings transactions or long-term goals should be discriminated against and confusion should be avoided by not overstating. Consequently;

aa)A current account where current earnings are recorded and regular expenditures are monitored,

ab)By determining reserves/allocated resources; unpredictable costs (2-3 months' income) and reserve accounts for all future expenses (car, furniture, household appliances - holiday-purchases reserve purchases),

ac)Accounts should be created for long-term savings targets, such as a retirement account, children's education or pension.

c)Only those who need it should be left in the account and if they wish to save fixed amounts on a monthly basis, they should only register immediately after the acquisition of the income.

d)All their savings must be automated through payment orders or automatic payment.

e)By looking at the big picture of where money is spent and where wrong and bad spending is felt, only individual accounts should be looked at by taking a mental step back at regular intervals (e.g. annually**("Mentale Kontofuehrung", 2018)**

2.2.1.4. In Terms of Shareholders/Partners

Mental accounting has two meanings in terms of shareholders/partners:

-The first is a form used in valuing managers and technical staff who are key staff of the company. Executives are the people who make all decisions regarding the company, both within the laws and within the powers vested in the company itself and are the most effective personnel on the future of the company. Technical personnel are the personnel who are equipped with knowledge, education and training, have sufficient skills and experience, especially financial, legal, technical-production and engineering, etc., depending on the business policy, programs and plans to achieve or help the company achieve its goals.In other words, administrative activities are carried out under the responsibility of technical personnel if they are functional activities of the executive/board. While all activities are carried out, the company's resources/assets are consumed during the activities. And as a result of this, profit/loss and material gains and financial structures and assets are protected and raised or reduced and lost.

On the other hand, the value and image of the company is increasing or decreasing. All this varies according to the sensitivity, knowledge and skills of managers and technical personnel in decisions to be taken, their distant views and rational thinking, their well-known and caring about risks. In the end, they are human, no matter what their position and titles and responsibilities and powers are in the company, that is, at any level of management. Accordingly, it is determined that their decisions, thoughts and feelings or sentiments are logical. This is an indication that mental accounting has an effect on the activities and decisions taken here as human resources/behavioral accounting. In this respect, shareholders/partners are responsible for the value of the resources they provide to the company created by using micro-effectively or not, while in macro terms they are responsible for the contribution/added value provided to the economy.

-**The second** is to increase the welfare levels of the shareholders/shareholders in terms of their personal expectations, i.e. in terms of the dividends to be provided to them and the income to be obtained by valuing/maximizing the shares. Mental accounting affects these objectives of shareholders/partners by using capital/resources effectively and productively in the valuation and increase of assets in the decision process of the company. It will also determine the taxes payable according to the distribution/non-distribution of profits. Therefore, taking rational decisions that take into account the whole picture of the company will make it easier to achieve these goals and tax liabilities will be fixed without any problems.

Because, when people make decisions, each person acts as if they have an "**intuitive**" mind that makes judgments fast, very light and without deliberate basis, and has a "**reflective**" mind that works slowly and analytically and needs to be used consciously. For example, financial advisor z. with them, they can use this for the benefit of their customers by developing a system based on their future goals, based on the relevant risk profile, current customer status and, for example, the requirements that must be met for old age**.(Benartzi, 2012)**

-In addition, cost and price policies and strategies, strong financial structure and regular to reach the protection and increase the overall performance of the company's existence in maintaining and improving the competitiveness of increasing etc. are of great importance to shareholders/partners. Because, with the mental accounting approach, managers, both as a human being and as a kind of investor and consultant, occasionally make decisions with imprecise images and beliefs rather than rational analyses, while on the other hand, a question or issue will affect the decision of an investment as a result.

It is **aimed to reduce complexity** while making decisions, consciously or unconsciously, by evaluating many options**, as well as to reduce a fast but often not optimal judgment**.

In terms of mental accounting, because of an individual's habit of neglecting the potential dependence between each appropriate contract and project, people use "**mental**" separate accounts, **(Pieper, 2017)** taking into account the integrity and impact of all projects, which have different meanings for managers, investors, shareholders/partners and debt originators.

On the other hand, managers, investors, shareholders/partners and debt originators are all decision makers, where the mental strength that has the most important role in influencing the decision comes to the fore, It consists of:

- **Confidence (mentally strong individuals rely on their abilities.)**
- **Difficulty (mentally strong people are combative.)**
- **Control (mentally strong people have control.)**
- **Commitment-realistic (mentally strong people carry the desire to achieve their goals fast.)**

("MentaleStaerke", t.y.)

2.2.3. Application Examples

Mental accounting is closely related to mental strength, while mental strength is generated in four stages (level)**:("MentaleStaerke", t.y.)**

Stage One: to be aware of what people can do by building beliefs according to their own abilities and to do so. For example, athletes develop beliefs of self-competence through mental exercises and special exercise sessions.

Stage Two: learning to focus on a goal. Let's re-examine the athlete sample. An athlete learns to focus on a goal, not to be distracted, and to be able to control their thoughts in performance situations.

Stage Three: learning that failures are part of what can be done and overcoming them. By always seeing failures as opportunities for growth, one should think solution-oriented and always pay attention to the goal. An athlete can protect himself from failures with a belief in competence and continue to focus on his goal.

Stage Four: learning to set new and more challenging goals. Athletes stick to these goals by continuing to motivate themselves with new, challenging goals. The best athletes always train mentally - even during injury breaks. Because it's often a mental problem, it obscures that athletes perform perfectly in workouts, but have poor results in competition.

By integrating these stages into everyday life by individuals, they quickly become aware of the improvements. Because being an entrepreneur is like running a marathon. You have to train yourself to be able to deal with failures or defeats, but you always have to have the goal in mind and not give up. In this regard, the following prose of Chinese wisdom should not be forgotten: **"Watch your thoughts, they become your words; watch your words, they become your actions; watch your actions, they become your habits." ("MentaleStaerke", t.y.)**

2.2.4. Tax Assessment of Mental Accounting

Although the tax dimension of Mental accounting is a major subject of examination, a brief examination in this section will be even more useful in terms of understanding the study. As is known, the tax is a compulsory assignment for all real or legal entities and is a public income from the positive equity difference or income obtained at the end of the operating period.It imposes obligations/indebtedness on all taxpayers regardless of type and the failure to perform obligations/indebtedness on time obliges collection with penalty. In other words, the public/state is the largest and most important partner of all taxpayers' income and is charged by force for certain periods of time in certain ways, regulated according to the provisions of each country's own legislation.

For self-employed people who are just starting work, taxes are a heavy and tedious issue, and mental accounting is used as a measure for self-employed people to be able to keep track of their financial activities.

In terms of mental accounting, it is emphasized that the separation of taxes on net income affects the reference point of the taxpayers in the compliance decision and that the tax compliance will be higher and the results of a laboratory experiment confirm this situation, and when the tax debt is not indicated separately on the salary or wage slip provided to the employees, the relevance of mental tax accounting high.

In addition, it is stated that net discrimination due to tax and the individual tendency towards individual separation of net income, gender and age of participants, and attitudes towards tax payments are positively related.**(Olsen, Kasper,Kogler&Kirchler, 2019)**

However, mental accounting, in terms of their behavior and attitudes to determine their perception or understanding of the taxpayers; taxpayers, especially self-employed persons in the identification of possible factors that affect the taxation of the attitudes and behavior of the application in the context of mental accounting may be the meaning of tax. Therefore, it would be appropriate to briefly focus on the perception of the tax and the attitudes of the taxpayers.

a)Perception of Taxes: The perception of taxes in terms of taxation is the first stage of the process that determines the attitudes and behaviors that taxpayers take in the face of taxes. In other words, the behaviors shown in the face of tax are largely shaped in the perception phase and it is understood exactly how taxes are perceived by individuals.

Thus, tax-related negativity becomes much easier to eliminate. For example, in tax evasion, which is the most important of the negative behavior shown in the face of taxes, the taxpayer must have a largely negative attitude towards tax in order to evade tax. This negative attitude can result in tax evasion, as well as creating public opinion in a way that justifies tax evasion. In fact, this effort to create public opinion can be carried out through newspapers, magazines or the visual press, and a backlash against tax can be generated throughout the country **(Demir, 2008).**

So, what is causing this negative attitude? The answer to this question is about how the tax is perceived by the individual. Previous bad experiences, environmental factors and the social and economic situation in which a person is present primarily lead to a negative meaning of tax. This perception then develops a negative attitude towards tax and, when the opportunity arises, leads to an important crime such as tax evasion.

What needs to be done first is to prevent negative perception of taxes. This will not be easy to accomplish, of course. First of all, people need to be convinced that taxes are necessary. The factors that influence tax perception should be examined in terms of social psychology, as it may be possible to gain a better understanding of the necessity of taxes by means of investments in areas where public expenditure returns are more readily visible to citizens and where higher benefits can be obtained.These include: (**Demir, 2008)**

—Situation of the taxpayer (perceiver):

—Perceptual tendencies, biases, logical errors of the taxpayer (perceiver):

—Knowledge of the perceived object/event / tautology of the taxpayer (perceiver):

—Stereotypical judgments of the taxpayer (perceiver) :

—Incomplete perception/financial delusion of the taxpayer (perceiver)

In terms of the perception of taxes, we have two options:

- ❖ **It is the approach that taxes can be experienced as losses (Prospect Theory)**. Accordingly, if gross income is used as a reference point, tax debt is seen as loss and risky behavior can be expected to minimize (due to tax) loss. This means that self-employed people who do not have a mental account for taxes live off taxation as a mental distinction between gross and net income, and are therefore more prone to tax evasion. Although it is known that mental accounting has an effect on tax evasion, it is not yet certain. Smart entrepreneurs who have knowledge or training in tax and tax law as owners of net profits and know exactly how high the tax will be, will not avoid tax but will consider ways to pay less. Because he may think it is right to pay less tax than his earnings by comparing his mental costs and income. In other words, he will be able to avoid tax payments by thinking that he is paying high taxes even though he is against tax loss.**(Kamleitner** &**Hoelzl, 2009)**
- ❖ **The approach is that taxes are a public assignment and, upon payment, will be used in public financing requirements/finance public spending.** In this approach, the state is

the most advanced technical administrative organization created to meet the needs of the society, first of all security, justice, health, education, road, water, energy, etc. Therefore, it is a compulsory citizenship assignment for the taxpayer, and every citizen must pay this duty willingly and fondly at the rate of his / her earnings.

b)Tax Compliance: "Deviating from the economic, social and political goals determined by tax policies negatively affects public balances; distorts horizontal justice and creates social unrest; analyzing the dynamics underlying taxpayers ' tax compliance decisions plays a critical role in increasing social welfare. By evaluating the relations between taxpayers and the public from the perspective of tax ethics rather than by examining them with mechanical methods, tax systems are likely to produce outcomes that are compatible with expectations. **(Secilmis**&**Didinmez, 2016)**

Tax compliance, which affects the perception of taxpayers, is another important factor defined as the proper and timely fulfillment of tax obligations in accordance with tax laws; there are two types of compliance:

ba)Voluntary compliance: voluntary obedience to or compliance with the laws and rules contained in tax systems.

bb)Voluntary noncompliance: a synthesis of attitudes and behaviors such as the way taxpayers show their obligations to pay lower or higher than they should be, or the way taxpayers fail to comply with tax laws and avoid tax. Voluntary nonconformity occurs in two different ways: voluntary nonconformity and involuntary nonconformity.

bba)Voluntary nonconformity, is the fact that taxpayers consciously fulfill or fail to meet their obligations in an incomplete manner in order to get rid of their tax obligations.

bbb)Involuntary nonconformity can be explained as unintentional errors due to misinformation of taxpayers, misunderstanding, distraction. The increase in tax rates causes taxpayers who are in voluntary non-compliance to react actively or passively to the tax.

bbbba)Passive reaction: an increase in tax rates lowers the income level of taxpayers and this is effective in the attitudes and behaviors of taxpayers. When the tax rate increases, the taxpayer first reacts passively with the sense of "take on the chin" to prefer idleness, to reduce consumption, to pay taxes late, to reduce production or to give up investment. In addition, taxpayers are engaged in non-illegal behavior by reflecting taxes or avoiding taxes with their passive responses.

bbbbb)Active reaction: as tax rates increase, taxpayers ' reactions also increase, and increasing taxpayer responses turn into active response. Taxpayers Act in violation of the law in active response situations, demonstrating disobedience to authority. Tax evasion and tax rejection and rebellion can be cited as examples of the active responses of taxpayers. The individual active reactions of taxpayers turn into social reactions over time and this leads to a mass revolt against the tax.(**Tekin**&**Sokmen, 2012)**

In terms of Mental Accounting, all research is mostly focused on direct taxes, especially income tax. The most important reason for this is that income tax is a tax that taxpayers pay directly (all in advance or in installments) at certain rates on their earnings.

However, VAT is an indirect tax paid by the taxpayer and then the tax amount calculated is paid or transferred to the tax administration. Both taxes are the largest sources of tax revenue in OECD countries. While the accurate calculation of income tax is generally slightly more complicated than VAT, in payment, it is relatively easy to determine the amount of VAT payable. After all, VAT is perceived by self-employed taxpayers as an administrative burden rather than a financial burden. The fact that income tax is actually paid by the business owner, whereas the fact that VAT is paid from the customer can affect the mental separation of taxes. **(Olsen, Kasper,Kogler**,&**Kirchler, 2019)**

Both Income Tax and Value Added Tax are mandatory payments by taxpayers, as well as a mandatory income and capital loss. While the taxpayer is aware of the obligation to pay these payments, when he looks at them emotionally through the eyes of the investor, he also considers the monetary value that will go out of his own pocket.

Because money is paramount to him, and **in our personal opinion money is the blood of the economy, or the basis of all the activities of the economy depends on money**. In other words, money is used here as a capital provision; if he is broke, he cannot carry out any activities.

But for them Income Tax and VAT are different in meaning. They have already determined the taxes they will pay by taking advantage of the experience of the past years and they see the size of the Income Tax payable as an increase in their budget and they want to forget the income tax when they determine their income. Because income tax is a type of tax that has an element of cost. First, there is a mandatory payment and there is a cost to obtain it, and then it is calculated by comparing the revenues and expenditures/costs. At the same time, although there is a mandatory expenditure/cost element for taxpayers during this comparison, some expenditures/costs are not accepted in terms of the law. In other words, expenditures/costs that are not accepted by law are an extra burden on the amount of tax to be paid. This is perceived as both an element of paid cost and as an algebraic payment as overpaid tax due to the fact that it is not accepted in the calculation of the tax payable.

The Value Added Tax is the state's money for them and is not a cost element. VAT is the duty of the end consumer because it is a tax on expenditures/consumption, not income, and it is realized by the delivery or sale of goods or services. In determining the amount to be paid differently from Income Tax, the amount paid and calculated are compared to the amount to be paid and do not bring any cost/expenditure except in some special cases. Depending on this method of calculation, the final creditor of the VAT is the state, but the person who will make the payment changes. Because the delivery or sale of goods and services forms a value chain and VAT starts with the activity of the first ring of this value chain and ends with the activity of the last ring.

3. Conclusion

Richard Thaler's "Mental accounting is a set of cognitive transactions that individuals and households use to organize, evaluate, and track financial activities." definition of business writing entered the essence of mental accounting is the psychological biases in which decision-makers regularly repeat their rational or non-rational decisions. People are affected by many factors when making various decisions throughout their lives, especially monetary assets, all their other assets and their resources are monitored in their mental accounts, which are divided in many different ways, and at the same time they calculate cost and income. In other words, according to mental accounting, people value money (and their monetary resources) according to which group they have included it. While this is sometimes counterintuitive, some groups are worth more than others, and people will take some of their money into a savings account and some into another account where they can take risks. Thus, they will save by choosing less risky investments in the savings account, while in the risk account they will aim to increase their income by choosing more risky investments. The choice made here is entirely subjective and correct from the point of view of the decision maker. However, behavioral finance is an integration of classical economics-finance and psychology-decision-making sciences and is effective on both processes; and determine the financial behavior/activities of people and companies.

In this context, according to the results of the research; the fact that investors do not act "rationally" and cannot optimize their preferences, such as cognitive limits, psychological biases, uncertainty, past experiences, causes investors to act in investment and financial decisions without rationality, in control of intuition and feelings. Behavioral Finance has studied the effects of irrationality and human psychology on investment decisions. And it suggested that intuition, habit and past experience also play an important role in asset prices, and that investors are also influenced by psychological and sociological factors when making decisions when risk and uncertainty occur. It has the same perspective as accounting. Because according to mental accounting, emotions and thoughts are effective in financial decisions. Investments are grouped in the accounts in mind. Each grouped position is given a separate meaning, whereby cost and profit-loss are compared.

On the other hand, when it comes to investing with mental accounting, decisions made are wrong and carries a risk of damage although attention is paid whether each option's cost price is at profit or loss. What is remarkable here is the emotional and intellectual behavior that people create in their minds. People who interact with the economic environment are not only concerned with the information available on the market for many financial transactions, such as buying, selling, saving, but also with people's own perceptions and cognitive filters. Mental accounting examines the deviations and sensory and cognitive biases shown by people in decision making process from rational behavior in a scientific system. In this way, mental accounting determines the limits of categories created in the mind. And it takes on the role of a process that ensures that appropriate planning is done and that it is monitored. And with this aspect, it coincides with and resembles accounting, which is partly related to financial transactions and similar economic events. But there is no sentimentality in accounting. In addition, in the mental accounting decision process, accounting and management accounting in general are associated with financial accounting and tax accounting, both affecting them and being affected by them.

According to Mental accounting, the current costs that affect the decision (the costs that determine the decision) are sunk cost and opportunity/alternative costs. Because people's decisions are choices among the choices and these preferences are determined by their knowledge, experience, understanding and their involvements and educational levels, etc., decisions also come under the influence of both intellectual and emotional factors.

Overconfidence, for example, is the most important thing for “a person to think and believe that he or she is more intelligent and capable”. Because people are very optimistic and act with consciousness: “**There is no need to be a genius in a profitable and successful investment (or decision), only to be acted upon quickly and never to be missed as opportunities will never come again.**” However, this optimism always carries risks, can have very bad consequences for the decisions taken, and more importantly, it is the failure to learn lessons from what has happened. In addition, the highest yield option cost/opportunity costs that are given up have been missed. Because our mind makes the decision psychologically plausible by communicating the messages that the investment we made or the decision we made was not a very bad decision, the consequences won't be as bad as thought, etc. And so the mistakes done are erased or forgotten. Moreover, the fact that mental accounting brings many pitfalls is forgotten and no precautions are taken. The entire decision/investment picture was treated by not being seen (or unwilling to be seen) and the capital/monetary resource used in the investment turned into a sunk cost for future periods.

What should not be overlooked here is that people often do not fully consider opportunity costs but are susceptible to sunk cost inaccuracies. Because, in terms of mental accounting, people treat money differently depending on factors such as the source of money and the purpose of use; the underlying hidden reason is the fact that all money/monetary resources can be interchanged and have no labels. So, sentimentality is mixed with thought. Or the decision has been determined by the **tide** between (emotions and thoughts) sentimentality (spirit) and contemplation (mind).

The same is also the case in the perception of tax, and in terms of mental accounting, the way taxpayers perceive tax, or their understanding determines their behavior and attitudes. Taxpayers, especially those who earn self-employment and personal commercial gain, use mental accounting both personally and institutionally, and impose tax on the meaning of the account they have created in their minds by behaving in two ways, acting in harmony or showing dissonance.

Tax liability for the taxpayer is a loss or a cost burden/sunk cost that is impossible to recover. Therefore, these approaches to avoid risk and avoid paying taxes, smuggling, cheating, etc. are seen as correct for the taxpayer in order to avoid harm or to avoid sunk costs. Smart entrepreneurs, who have knowledge or training in tax and tax law and know exactly how high the tax will be, explore ways to pay less tax, while not avoiding tax as owners of net profits.

Because he may think it is right to pay less tax than his earnings by comparing his mental costs and income. In other words, he will be able to avoid tax payments by thinking that he is paying high taxes even though he is against tax loss. Here, taxpayers are in non-compliance, either willingly or non-willingly. There may be situations where taxpayers consciously declare (their obligations) unreal for various reasons the costs they have to pay according to the laws and rules contained in the tax systems. Or there may be situations where they declare less than they are, or they don't declare at all. There may also be cases of incomplete fulfillment or not performing at all.

Although it is known that mental accounting has an effect on tax evasion, it is not yet certain.

For the taxpayer, taxes are the largest financial instrument of government/public spending and are a compulsory citizenship/public assignment that everyone must participate in at the rate of their income. And with the finance provided, services such as security, justice, health, education, roads, water, energy etc. are realized. Accordingly, every citizen should pay this duty voluntarily and willingly at the rate of income. This includes voluntary obedience to or compliance with the laws and rules contained in tax systems.

All research in terms of mental accounting is generally focused on Income Tax and Value Added Tax, which are the largest sources of tax revenue. The reasons for this are as follows:

- Income tax is a tax that taxpayers pay directly (all in advance or in installments) at certain rates on their earnings and Value Added Tax is an indirect tax for the taxpayer, although it occurs in the sales or delivery of all goods and services and is paid by the final consumer.
- Both Income Tax and Value Added Tax is a compulsory payment by the taxpayers as well as being perceived as a compulsory income and capital loss. This is based on the fact that when the taxpayer consciously looks at these payments from the perspective of an emotional investor in terms of mental accounting, it is especially important for him to think about the monetary value that will go out of his own pocket.
- Also, the meaning of both Income Tax and Value Added Tax is different; they are aware that each excess income tax to be paid will create a budget increase by determining in advance how much tax they will pay through their past experience. Because, for them, Income Tax is regarded as a tax that is a cost element or a cost, or as an over-paid tax, depending on the KKEG-expenses involved in the calculation of income tax.

However, the Value Added Tax, VAT, is the duty of the end consumer because it is a tax on expenditures made not from income, it is realized by the delivery or sale of goods or services and, accordingly, it is the money of the state for them and it is not a cost element.

In this study, the financial tax dimension of mental accounting was briefly addressed by evaluating people and institutions as an investor, as a company owner or as a partner, as a lender or as a principal taxpayer and, most importantly, as an entrepreneur(because all of these groups are entrepreneurs in terms of value and benefit).

Although the history of mental accounting is still very new, both as a real person and as a legal person, mental accounting has started to find application as an approach that leads taxpayers to different attitudes and behaviors. Over-confidence, over-optimism, avoidance of regret, avoidance of loss and tendency to represent are the factors determining the decision process over feelings and thoughts, and mental strength is created which is very closely related to mental accounting.

The creation of mental strength is carried out through the following stages and these stages are integrated into daily life;

- ✓ To be aware of what people can do and do by building their beliefs according to their own abilities,
- ✓ Learning to focus on a goal,
  - ✓ Learning that failures are part of what can be done and overcoming them,
  - ✓ Learning to set yourself new and more difficult goals.

Thus, the application is also noticed quickly in the decision process improvements. Because the entrepreneur is like a marathon runner and it is imperative that he train himself to deal with failures or defeats and that he always has goals that should never be forgotten and that he should not give up.

It has been observed that there is no definition in our laws of mental accounting, which is applied at personal levels in our country, especially by self-employed persons and taxpayers earning self-employed earnings. And it has been found that there is no provision in the tax and procedural laws and commercial laws in particular. However, this issue needs to be examined in more detail.

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