

**REPUBLIC OF TURKEY
YILDIZ TECHNICAL UNIVERSITY
INSTITUTE OF SOCIAL SCIENCES
DEPARTMENT OF ECONOMICS
MSc. ECONOMICS**

MASTER THESIS

**AN EMPIRICAL CLASS ANALYSIS BASED ON
INDEBTEDNESS, EXPENDITURE AND LIVING
CONDITIONS**

GIZEM KUMRU

15729028

ADVISOR

ASSOC. PROF. DR. SECKIN SUNAL

ISTANBUL

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To my dear mother & father

ABSTRACT

An Empirical Class Analysis Based on Indebtedness, Expenditure and Living Conditions

Gizem Kumru

15729028

May 2019

The approaches, which contrast with those of Marx and Weber relying on property relations and status in analyzing classes, lead to emergence of new approaches to the concept of class. These new approaches involve reconstruction of class-related concepts and emphasize the use of empirical methods. To discuss classes on the unidimensional perspective is difficult, however determining a specific question might be an appropriate starting point for a systematic discussion on classes.

This paper places economic conditions based on indebtedness, expenditures and livelihood satisfaction at the center of the class discussion. To reach appropriate set of information, “Household Income and Living Conditions Data” published by TurkStat is used. The survey involves several categorical variables on priorities for indebtedness, expenditures, some basic living conditions, livelihood satisfaction, income etc. with demographic, occupational, employment-related information of individuals. In this point, one needs to ask this critical question: What constitute classes here? In fact, the paper supports to approach the classes in a different context than hierarchical social stratification. So, instead of constituting a class schema or hierarchic class positions; living and economic conditions are brought together with basic features which might possibly constitute class structures such as occupational status, status in production relations, education and income. For this purpose, empirical methodology is divided into two steps: In the first step, a simplification of the multidimensionality of economic conditions is aimed. Accordingly, the assumption that each categorical variable would have a different contribution to the whole is accepted and aggregate scores are computed which involve selected 13 categorical variables. Among multivariate analyses, it was decided that Multiple Correspondence Analysis (MCA) would be the most appropriate method since it focuses on categories of each variable. In this regard, coordinate values given by MCA for each category (each response of question) were used, thus each category had obtained a weight. In the second step, these aggregate indicators are brought together with selected features of individuals via correspondence analysis (CA), two-way simple version of MCA. Consequently, an answer is sought for the question, how these indicators, which are extensively covered in the class literature, are distributed against the economic and living conditions. Through this we try to draw conclusions on the choice of appropriate

indicators for obtaining more straightforward landscapes of classes in Turkey, which constitutes the main objective of this study.

Keywords: classes, living conditions, indebtedness, expenditure, multiple correspondence analysis

JEL Classification: Z13, C38, C81

ÖZ

Borçluluk, Harcama ve Yaşam Koşulları Ekseninde Ampirik Bir Sınıf Analizi

Gizem Kumru

15729028

Mayıs 2019

Sınıfların yalnızca Marx ve Weber kutuplarında, mülkiyet ilişkileri ya da statü eksenlerinde ele alınmaması gerektiğini vurgulayan tartışmalar literatürde kavramların yeniden dönüştürüldüğü ya da ampirik yöntemlerin öne çıkarıldığı güncel sınıf yaklaşımlarının oluşmasına yol açmıştır. Sınıfları tek bir bakış açısıyla ele almak elbette oldukça zordur, ancak belirli bir sorudan yola çıkmak, sistemli bir sınıf tartışmasının başlangıcı olabilir.

Bu tez sınıf tartışmasının merkezine ekonomi ve yaşam koşullarını koymaktadır. Bu amaçla Türkiye İstatistik Kurumu’nun “Gelir ve Yaşam Koşulları Hanehalkı Mikro Veri Seti” ile çalışılmıştır. Bu veri seti yaşam koşulları, borç yükü, çeşitli harcamaları karşılayabilme durumu, geçinebilme durumu, gelir, mesleki statü, demografik bilgileri kapsayan, kategorik değişkenler içermektedir. Bu bilgilere erişmek ne denli önemli olsa da esas soru şu olmalıdır: Burada sınıfları oluşturan nedir? Bu tez, sınıfları hiyerarşik sosyal tabakalar olarak ele alan bir yaklaşımdan uzaktır. Bir sınıf şeması oluşturmak ya da hiyerarşik sınıf konumlama belirlemek yerine ekonomi ve yaşam koşullarını literatürde çokça tartışılan, sınıf oluşturabilecek mesleki statü, üretim ilişkilerindeki statü, eğitim ve gelir değişkenleriyle ayrı ayrı bir araya getirmek amaçlanmıştır. Bu amaçla, tezin analiz bölümü iki aşamaya ayrılmıştır. İlk aşamada, ekonomi ve yaşam koşullarının çok boyutluluğunun sadeleştirilmesi hedeflenmiştir. İncelenen çok yönlü istatistiksel analizler içerisinde, doğrudan kategorik değişkenlere odaklanma imkânı sağladığı için çoklu uyum analizinin en doğru yöntem olacağına karar verilmiştir. Analizin her bir kategorik değişken için verdiği koordinat değerlerinden yararlanılarak bir ağırlıklandırma yöntemi oluşturulmuştur. Böylece her bir birey, sorulara yönelttikleri yanıtlar doğrultusunda bir “birleştirilmiş skor” elde etmiştir. İkinci aşamada ise, bu skorlar ayrı bireylere ait mesleki statü, üretim ilişkilerindeki statü, eğitim ve gelir düzeyi değişkenleriyle bir araya getirilmiştir. Bunun gerçekleştirilmesi için de çoklu uyum analizinin çift yönlü versiyonu olan uyum analizinden yararlanılmış, her bir değişkenin, birleştirilmiş skorlar ile dağılımı ayrı bir grafikte gösterilmiştir. Böylece literatürde geniş yer kaplayan bu göstergelerin çalışmanın çıkış noktası olan yaşam koşulları ile nasıl bir dağılım gösterdiği, hangi yaklaşımın ekonomi ve yaşam koşullarıyla bir arada düşünüldüğünde daha anlamlı sonuçlar verdiği tartışılmıştır.

Anahtar Kelimeler: sınıflar, yaşam koşulları, harcama, borçluluk, çoklu uyum analizi

JEL Sınıflandırması: Z13, C38, C81.

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LIST OF ABBREVIATIONS

CA:	Correspondence Analysis
CASMIN:	Comparative Analysis of Social Mobility in Industrial Nations
ILO:	International Labor Office
ISCED:	International Standard of Education
ISCO-08:	International Standard Classification of Occupations
MCA:	Multiple Correspondence Analysis
NS-SEC:	National Standard Socio-Economic Classification
TurkStat:	Turkish Statistical Institute

1. INTRODUCTION

The controversy on the possibility of a classless society creates an important motivation to rediscuss classes. In this case, one needs to ask the question: Does society become classless, or is there a need for reconstruction to the approach to classes? This thesis supports that class discussion needs a reconstruction to appropriately approach to dynamic structure of the contemporary society.

Constituting class locations and determining common and diversified behaviors on different social stratifications are different issues. In the first approach, the question of what constitute class locations needs a rigid theoretical background. In the contemporary literature, John H. Goldthorpe and Eric Olin Wright class schemas are very remarkable examples for this. Even though these studies are based on rigid theoretical background, the appropriation of these class schemas in every conditions and different social structures is a controversial issue. In the second approach, it is possible to examine common attitudes, behaviors, lifestyle, living conditions etc. in different stratifications of society. Most of the current middle-class discussions embrace these approaches. Various data based on leisure time activities, clothing styles, consumption habits, preferences etc. are collected to create the middle-class profile. In these kind of studies, middle-classes are usually defined as white-collar professionals, the middle segment of overall income etc. However, the extent of the middle-class definition is controversial in such studies.

In fact, finding a consensus on the structure that constitutes classes is nearly impossible. So, asking a specific question on classes will be a powerful starting point to discuss classes. This thesis purposes to place the economic and the living conditions at the center of the class analysis. Furthermore, instead of constituting a class schema, it purposes to bring together selected features of individuals such as occupational status, status in production relations, education and income, widely discussed in class studies, with economic and living conditions. In this way, obtaining straightforward landscapes of

classes and analyzing what kind of landscapes are constituted by these features will be possible.

It is difficult to reach confidential quantitative data on income, expenditures, and indebtedness. In the empirical analysis of the thesis, to access information about economic realities and basic living conditions of individuals, “Household Income and Living Conditions Survey” published by TurkStat is used. The survey includes several categorical ordinal variables which are divided as the household and the individual. While household data contains categorical ordinal variables about the livelihood satisfaction, the possibility of different kind of expenditures, the burden of payments of different kind of debts; individual data provides extensive information about each member of house such as education level, occupational status, working conditions, demographic features etc. In this regard, responses to these questions will allow more objective analysis of economic realities and living conditions of individuals.

Although obtaining appropriate information is very important, finding the best analytical method to constitute purposed class landscapes is the core issue in the thesis. Basically, the thesis supports to visualize different landscapes at the center of economic and living conditions despite constructing absolute class schema. In accordance with this purpose, different features of individuals such as occupational status, education, status in production relations and income will constitute one component of the analysis. Economic and living conditions also constitute other component in the separate graphics. So, discussing explanation power of different features of individual against to economic conditions will be possible.

However, the question of what is indicated as “economic and living conditions” is critical point. So, economic and living conditions statements should be specified here. In this regard, 13 categorical variables from household dataset of “Income and Living Conditions Survey” has been selected to represent the conditions. These categorical variables particularly based on indebtedness, expenditures and basic living conditions aspects. But, there is a still problem, because interpreting each variable which represents economic conditions with individuals' features separately leads to ambiguous results. Furthermore, whether the contribution of each variable is equivalent or not in an analysis based on

economic conditions is another controversial point. Paying mortgage credit or installments regularly, making unexpected expenditures or buying new clothes cannot make the same contribution to the general conditions of individuals. So, weighing 13 selected ordinal categorical variables and constructing an aggregate score which involves all of them will solve this major problem. Thus, reducing multidimensionality of economic and living conditions statement and obtaining straightforward landscapes of classes will be possible.

In accordance with these purposes, in the first step, each categorical variable for economic and living conditions will take a weight according to its contribution to the whole. Thus, each person will be obtained an aggregate score in respect to her/his responses to questions. In the second step, analysis purposes to visualize the relationship between widely discussed features of individuals and their economic and living conditions. Each feature is combined with aggregate scores in a separate graphical visual. So, how the features create straightforward landscapes in the face of the conditions and which features reveal more consistent results will be analyzed.

Primarily, a method to calculate weights for each categorical variable and simplify the multidimensional relationship between them is needed. Among multivariate methods, Multiple Correspondence Analysis (MCA) seems to be the most appropriate method because it directly focuses on the relationship between categories, ordinal responses of the question in other words. In the second step, Correspondence Analysis (CA), the simple two-way version of MCA, will show the two-dimensional relationship between obtained aggregate scores and selected features of individuals such as occupational status, status in production relations, education, income in a separate way.

Social classes issue is open to extensive discussions. Different stratification can be constituted in accordance with different perspectives. The data set which is used in the thesis, is not built exclusively for a social class study. However, the survey involves many variables that will provide access to information on priorities for indebtedness, expenditures, some basic living conditions, livelihood satisfaction etc. via an extensive sample. Thus, discussing the classes at the center of economic and living conditions without constituting hierarchical social stratification is purposed. Instead of building a

class schema, laying out an overview of basic structures which can constitute a schema will be possible.

The content of the thesis can be summarized as follows: In Chapter 2, the extensive literature review will be discussed. In the literature review, the emphasis is on class discussions which lays the ground for the approach in the critical, conceptual and methodological aspects. Furthermore, class literature will be schematized based on common concepts and methodologies to make multidimensional discussions more understandable. In Chapter 3, the empirical analysis performed in accordance with the class approach of the thesis will be presented with steps of implementation and interpretation of results. Finally, in Chapter 4 how the constituted maps reveal class landscapes will be discussed in the theoretical context.

2. THEORETICAL DEBATES ON CLASSES

2.1. General Frame of the Class Debates

Conducting a literature review on the classes is difficult. Undoubtedly, there are several reasons on why class approaches present such a complex landscape. The most important one is class approaches might be prejudiced and ideological, so these attitudes confine the discussion in a barren perspective. Whereas, embracing any theoretical approach does not mean to refuse another one. On the other hand, focusing on the effects of common lifestyle, preferences, and behaviors in the different stratifications can cause the critics on inclusiveness of the indicators that constitute the class structure. Additionally, capital, wealth or property oriented class discussions make it difficult to understand the dynamics of contemporary society. Today, people can easily access resources exceeding their income or property. Also, people can be in the contradictory locations other than being an employee or employer. When all these questions are brought together, a motivation to re-thinking on classes emerges.

In fact, accepting the impossibility of a consensus on what constitute classes is an important step. In the first part of the thesis, the dominant concepts and methodology of the different class approaches will be discussed. Eventually, to put extensive class discussions into a schema according to common and different features of theories is purposed. This thesis does not cover all the discussion on the classes. However, the major theories that determine the aspects of the class discussions will be examined in a compatible perspective.

Literature debates will begin discussing Marx and Weber together because understanding the thought of these two cornerstones is an essential point to understand the general structure of contemporary discussion. Secondly, two theoreticians; Thorstein Veblen and Pierre Bourdieu will be considered as theoreticians who discuss the classes in the symbolic

field. Thirdly, extensive contemporary literature review which involves Neo-Marxist, Neo-Weberian theories, middle-class discussions, different methodological approaches in the comparative perspective will be examined. Fourthly, literature in Turkey will be discussed in a similar manner to the contemporary literature. At the end of the literature debates, theoreticians will take place in a theoretical schema according to their dominant concepts and methodology. So, a literature schema will be created to reveal the aspect of approaches more clearly. To create a literature schema will be beneficial to constitute a route and makes extensive discussions more understandable.

2.2. The Basis of Marxist and Weberian Class Debates

Undertaking a class discussion certainly requires a clear comprehension about class thought of Marx and Weber. Approaches of these two theoreticians are the cornerstone of the class literature. Also, in the contemporary literature Neo-Marxist and Neo-Weberian classifications are have a wide range. However, accepting this kind of general classification usually causes to confine the class discussion in a barren perspective. Especially, referring all studies linked to living condition in a multidimensional context, to directly as Weberian or Neo-Weberian is a frequent mistake. Whereas, approaching classes without any implication in a specific theory or unidimensional definition is a more convenient way. In this section, Marxist and Weberian class thoughts will be discussed with common and different features.

Explanation of the Marxist class theory is difficult because even though class is the core concept of Marxist theory, the boundaries of classes are ambiguous. His works have left the legacy which is still remarkable for understanding modern capitalist society. The title of the last chapter of Capital Vol III (Chapter 52) is "Classes". It begins with a definition of big classes of modern society such as wage-laborers, capitalists and land-owners based on the capitalist mode of production. Immediately after, Marx asks two important questions; “what constitutes a class?” and “what makes wage-laborers, capitalists and land-owners constitute the three great social classes?” (Marx, 1867 [1995]) But, this chapter ends on a single page. Marx could not continue the class debates under the specific title, so to deeply examine his sense of class from the whole of his work is needed.

In fact, to find class descriptions other than the bourgeois-proletariat conflict is possible in Marx's lines. In "The Eighteenth Brumaire of Louis Bonaparte" actors are defined in a conflict structure against the state in a different context of the economic basis. They are the bourgeois, proletariat, peasantry, land-owners, middle class, lumpen proletariat, industrial bourgeoisie, petty bourgeoisie and eminent officers. In "The Communist Manifesto", lower middle class such as small manufacturers, shopkeepers, artisans, peasants are defined. Although they have small-scale property and sometimes a few workers, they must participate in the production process. Furthermore, Marx defines "ideological representative of bourgeoisie" which included professors, doctors, lawyers, journalist, and similar occupations. This status-based class is mostly called "intelligentsia" and it refers to another basis than ownership of the means of production. Lastly, an underclass called "lumpen proletariat" is defined as a dangerous class of society (Marx, 1852 [1972]). Even though Marx has also made middle-class definitions, why are classes discussed in a conflict perspective between the bourgeois-proletariat in the Orthodox Marxian approach?

According to Marx, the progress of capitalism will lead to corrosion of middle classes. Petty bourgeoisie will be proletarianized not only because it cannot adapt to dynamics of modern industry but also because their skills lose value against new production methods. Furthermore, aristocrats will be turned into a class that has become weaker against the bourgeoisie which is strengthening in the urban industrial development process. On the other hand, there are subdivisions which take a stance on the opposite side of their own classes in the class struggle. For instance, intelligentsia, ideological representative of bourgeoisie, in a different position. Even though they are a subdivision of bourgeoisie, they defend the rights of proletariats in a different side. Also, the lumpen proletariat is completely at the opposite side of the proletariat because in the class struggle they will sell their services to the bourgeoisie for their own short-run benefits (Marx and Engels, 1848 [1970]).

At the end of all the complex middle-class view, Marx has concluded: The only main class versus the capitalist is the proletariat. All the middle-classes are defined as the

“transition class”. Toward the advanced stage of socialism, transition classes will disappear and the idea of classless society will be realized.

According to features of Marxian classes, individuals cannot constitute classes however, masses can do it. Similar types of behavior, socio-economic structure, income, political power are important components of the social relationship, but classes do not result in them. At the last instance, the process of production would be determinant.

In order to make this complicated middle-class landscape more understandable, Marx's thoughts about relations of production and inequality have to be examined. In a general frame, Marxist theory is a conflict paradigm in the bourgeoisie and proletariat polar (Kerbo, 1983). Understanding human society needs to begin with "material condition of human subsistence." In this regard, means of production is determined as the primary phenomena of capitalist society in the Marxist terminology. Also, other aspects of societies such as political organization, religion, ideologies are determined as secondary phenomena which are built by the primary economic base (Wright, 2005).

If there is a conflict paradigm, how could the meaning of inequality at the capitalist process be defined? Beginning with the definition of capitalist would be very beneficial to understand inequality. What distinguishes capitalist from others? Basically, to consider inequality only about possessing or not possessing the means of production is a wrong way. According to Eric Olin Wright, simply owning machines does not suffice for being a capitalist. In fact, besides the ownership of machines, capitalist also hold control over their process and other's labor force in the production. Most importantly, capitalist have full authorization to appropriate the profits which came from others' labor force. Consequently, the issue does not only refer inequality over the ownership of the means of production, also there must be unequal rights and powers over the appropriation of the profit which come from the production process (2005).

Marxist class analysis was much criticized and restructured in the contemporary class literature. Some frequently discussed points might be summarized as follows:

- Contradictory locations problems: "Contradictory location" concept, based on Eric Olin Wright's "Classes" in 1985, emphasizes a remarkable discussion. Individual's

authorities should not be represented on the unidimensional property expression. So, approaching property as simply ownership of means of production is not enough to discuss contemporary class structures. Giving some examples makes much clearer this important argument. For example; the possession of means of production is not a simple issue in the capitalist system. Basically, some of the property rights and powers can be distributed to the state and other individuals beside owners. In the current example, managers in the private sector can receive profit share from the company. In this situation, the capitalist has still control over capital and profit, but this is a new form of property rights and power distribution in the capitalist system. Merely economic dimension cannot be enough in understanding some complex relationship in the capitalist system. So, this kind of authority leads to new class positions which cannot be described by the Orthodox Marxist conflict approach.

- Middle-classes: Middle-class problem is one of the most criticized points in the Marxist class discussions. Marxism does not miss middle-class definitions, but middle-classes would be dissociated at the advanced stage of capitalism. However, current stage of capitalism leads to a large variety in class locations and complex middle-class landscape despite dissociation of middle-classes. As a result, there are class locations which need reargue via restructured measures of proletarianization, ownership, wage-earners position.
- Empirical approaches problem: Marxist literature might be criticized for being inconvenient for empirical approaches. Generally, Marxism is seen far from "life chances" and to determine common areas, because theory is evaluated in the conflict paradigm. However, in the current literature Neo-Marxist theoreticians break new ground in the conventional Marxist thought and use fundamentally "exploitation" and "dominance" concept in their empirical research.

On the other hand, Max Weber is also discussed in the conflict paradigm. While Karl Marx approaches to class analysis in a conflict perspective based on ownership of the means of production, Max Weber debates classes in a multidimensional conflict relationship between many different groups or individuals in society (Kerbo, 1983). Fundamentally, unlike Marx, Weber not only involves economic determinant in the class

debates also draws attention to other determinants such as political, social, material in the complex social relations. Although "power" is not a dimension of social stratification, it is a phenomenon which is distributed by class, status and party. In other words, class is economic, status is social, and party is political dimensions of the power distribution. Ultimately, these three dimensions; status, class and party are separated from each other. This separation is what makes Weberian thought very important in the class discussions, because while a person in a lower-class position can be in the higher status and party situation at the same time. This thought is a remarkable motivation for developing different perspectives in the complex structure of classes. On the other hand, multidimensionality causes some misunderstandings. Many studies, approaching classes in the empirical contexts, are defined as Weberian, only because of multidimensional structure.

To understand Weberian thought, discussing sense of both class and status concepts and their basic difference should be first step. Initially, Weber does not define classes as simply group or community. According to Weber's definition, "classes are not communities, they merely represent possible and frequent bases for social action" (Weber, 1922 [1978], p.927). Factors which create a class must have a strong relation with economic benefits and "market value". As a motto of Weberian class definition, "class situation is the market situation in the last stage" (p. 927). Masses must have common commodities which create economic benefits, market value in other words, and they present these commodities in the labor and commodity markets to constitute the class structure.

On the other hand, Weber approaches the inequality in "presence" and "absence" line. Since the beginning, market competition progress in the benefits of owners and they have competitiveness right for "high beneficial goods". Thus, ownership is transformed into the capital in the context of entrepreneurship rather than welfare. The unequal distribution of property leads to "specific life chances" in Weber. So, two poles occur in the unequal conditions of the market; "type of property which create revenue" and "type of services supplied in the market." The former thing refers to owners and the latter thing refers non-

owner, individuals that sell their labor. Furthermore, their value on the market situation leads to diversified in themselves such as rentier or investor in owners etc.

Weberian "class action" concept is very important because it can create class situation between different class members in a historical conjuncture. Conflict, affected by class situation, has transformed to social act via "debt relationship" at the first time of the history. In the Ancient history, the conflict has existed between urban creditor and peasantry or craftsmen due to the unequal limitations on the market. In the modern times, this kind of conflict has turned to "wage disputes" from debt relationship in the class act. Currently, debt relationship between urban creditor and peasantry still proceeding in a transformed form, between banks and borrowers, with very similar dynamics. Furthermore, debt relationship, in Weberian context, approaches the class situation instead of the status situation. Both issues, indebtedness and wage disagreements, inspires many other contemporary discussions. For instance, most famous Goldthorpe schema is inspired from the Weberian class situation analysis and wage disagreements.

Consequently, classes are masses which are clustered by the correspondence reactions. According to Weber, "People, in the same class situation, have same attitude in the direction of their own average benefits against economic situation" (p. 930).

Unlike class situation, the status situation constitutes "groups" as an important dimension for understanding society. In the status groups, economic factors cannot be considered as the foundation. They can be considered as specific lifestyle which is composed of social diversities and prerogatives (Swingewood, 1984). In other words, status groups are mostly shaped on lifestyle and consumption patterns and stratification is determined by this concept (Pakulski, 2005). Remarkably, status situation is a specific determinant part of the "honor", so individuals get involved in a special lifestyle in the status situation. While classes are stratified according to ownership of utility goods, status groups are shaped under the lifestyle and consumption which is required by this lifestyle.

Weberian status definition is more appropriate for descriptive class analysis and empirical implementations involve life conditions indicators. Unlike class situation, both owner and non-owner individuals can be a part of the same status group in despite of different economic situations such as different income or assets. However, classes directly relate to

functionality of market progress, status refers to a context different than market value. Thus, authority of ownership, important motivation of class situation, is damaged by the status dynamics. Status situation clearly related to lifestyle expectations. Unlike classes, life expectation will not turn to class action because they do not happen in the market. In sum, class situation is related to economic order, unlike status related to social order (Weber, 1922 [1978]).

In conclusion, listing significant common and different points of Marx and Weber will be beneficial to draw the theoretical border of the following discussions:

- Fundamentally, Marx discusses classes as an issue of production, unlike Weber focusing on the market situation. When economy is the main determinant in Marxian unidimensional social stratification approach, Weber supports multidimensionality with class, status, party to clarify complex social relationship in modern society.
- Individuals can be dispersed to different locations in terms of economic, social, political factors. Undoubtedly, it is an important motivation to understand how individuals distribute within complex relationships and which kind of features gather masses in empirical class analysis. On the other hand, Marxian analysis is criticized as dysfunctional against contemporary debates, because of its unidimensional structure. However, post-Marxist theoreticians show that Marxist approach can adopt empirical methods or enables to understand complex relationship with different dimensions in modern society if concepts can be reconsidered.
- Both Marxian and Weberian conflict analysis begin with "access to resources". Marx determines two paths via "market capacity in exchange relation" and "location within production relation." Although, Weber only approaches market capacity in exchange relation to reach "conflict over distribution."
- Approaching the meaning of status can be another different point between Marx and Weber. Marx supports that status distinctions are the result of class divisions in the society. Unlike Weber pointing out that status often varies independently of class division. Because Weber does not focus only on economic determination,

this status definition is expected. Possession of wealth normally leads to high-status life, but there are many exceptions. In this regard, Marxist approach is not enough on its own for understanding consumption, status dimensions in a dynamic contemporary society (Giddens, 2006).

- Weber has a descriptive approach in face of Marx's activist thoughts. Although both of them have antagonistic paradigms, Weber's market-based theory does not conceive a society which will be extinguished by the exploitation mechanism. Whereas, Marx describes a class structure which will be extinguished by the exploitation and inequality in the last stage of the capitalist process. This might be one of the important reasons for the concepts getting far away from Marxist terminology when the middle classes are getting stronger and class analysis focuses on their lifestyle and consumption culture.

Because Weberian-inspired class thought basically refers to multidimensional analysis, almost every non-Marxist analysis are evaluated as Weberian (Breen, 2005). At the end of discussion on Marxian and Weberian inspired class analysis, Eric Olin Wright's quote might make contemporary perspective more comprehensible:

“One can be a Weberian for the study of class mobility, a Bourdieuan for the study of class determinants of lifestyle, and a Marxian for the critique of capitalism” (Wright, 2005, p.192).

2.3. Symbolic Domain in the Class Debates: Thorstein Veblen, Pierre Bourdieu

Basically, classes are discussed in an antagonistic structure. However, dominance cannot be limited to the perspective of capital. There is a symbolic domain to analyze the complex relations in the society. The question of how to measure this symbolic domain in the practical life has brought contemporary literature to different perspectives. In this section, this symbolic domain will be discussed in the perspective of two theoreticians: Thorstein Veblen and Pierre Bourdieu.

Norwegian-American economist Thorstein Veblen presents a very remarkable theory on the classes with his famous book “Theory of the Leisure Class” by published in 1899. Veblen’s theory suggests immeasurable concepts such as honor, prestige and conspicuousness.

To understand his fundamental determinant, “leisure class” is a key concept. Briefly, leisure class is a superior class must be having interest in jobs which are include honor or prestige and exempted from daily life routines. For Veblen, division of labor has appeared proposes “exploit” (braveness) for superior classes (leisure classes) and drudgery for inferior classes in the primitive society. As a result, leisure class is linked to become warriors or priests while inferior class, especially women, related to drudgery, simple daily life routines. When occupations become to diversify, interests of leisure class have also changed. In the industrial society, division of labor is basically determined according to industrial and non-industrial determinants. To be exempted from the industrial activity is an economic superiority in the dynamic of modern society.

In fact, the most important concept is “property” in Veblen’s theory. Veblen (1899 [2007]) defines property as “ownership of beneficial object” . Emphasis of “benefit” is very remarkable to understanding the substantial role of symbolic consumption on the classes. At this point, Veblen suggests a contrary idea against the mainstream “marginal utility theory”. Let’s consider two objects having the same use value, but different prices. According to marginal utility theory, under these conditions, cheap alternative must be more preferable. However, the expensive alternative has a more satisfactory meaning for individuals in some situations. There is the difference of “invisible benefits” between these two objects. Veblen remarks this point with the concept of “conspicuous consumption”. So, what is the motivation which creates the satisfaction here? It could be symbolic value of a brand, catching trends, joining a popular leisure time activity etc. In the book, Veblen refers to symbolic contributions of housemaids to the leisure classes. It is a very radical example to understand symbolic transformation of consumption goods. In fact, importance of symbolic value of consumption goods is still increasing in the contemporary society. However, a reconsideration of the importance of symbolic value in the different stratifications of the society is needed. Currently, borrowing facilities, credit card usage, different payment opportunities make it much easier to access luxury consumption in the extensive stratifications of society. On the other hand, leisure time activities, experiences and service consumption present very conspicuous example for “invisible benefit”. Discrimination between business class and economy class flight experiences or VIP service opportunity in the visa application give the current example in

the related context. In such examples, the same service is provided in two different ways. The difference is the experiences is the invisible benefits. As a result, Veblen leads to very remarkable discussion based on the invisible, statutory effects which substitute income, wealth, occupation approaches to understanding stratification of society. So, “Theory of Leisure Class” primary inspirational theory to discuss a class approach which focus on solid relationship between symbolic value and other social dimensions.

In conclusion, Veblen presents two important dimensions for determination of classes: First about distinctive status concept, as it is discussed both in the primitive and industrial societies and second about symbolic consumption which is of great importance in the thesis.

Another important theoretician which contributes to importance of symbolic value on the class discussion is Pierre Bourdieu. The fact that Bourdieu does not approach classes based on any school causes a somewhat complex landscape. As a starting point, examining his position in face of the cornerstones of the class discussion; Marx and Weber will be useful. He reveals a more comprehensive and multidimensional capital approach than Marxist economic capital. In this point, Bourdieu divides capital into the four types; economic, cultural, social and symbolic. Economic capital is also related to income and property, but it is not enough alone to understand class dynamic. He accepts that economic capital is important, but it only provides a partial understanding on classes (Giddens, 2006).

He emphasis the importance of cultural capital which involves education, consumption patterns, various pleasures and curiosities in the lifestyle etc. This distinction is very inspirational because cultural capital is much convenient to understand liquid structure of modern society than economic capital. While social capital is related to network in the society, symbolic capital is similar to status. In the context of symbolic capital, one has to refer to Bourdieu’s stance towards Weber. Although never called as Weberian, Pierre Bourdieu makes interpretations on Weberian class and status discrimination in material and the symbolic context (Weininger, 2005). However, Bourdieu’s class approach never emphasis to only market value or economic determinant. Furthermore, unlike Weber, Bourdieu supports a necessary relationship between class and status (Weininger, 2005).

Even though economic and symbolic dimensions refer to different situations, he embraces these different situations simultaneously. So, a type of capital cannot be separated from another one.

How classes emerge in the Bourdieuan context? “Distinction: A Social Critique of the Judgement of Taste”, his most remarkable work on the class structure, was published in 1979. Fundamentally, class is not considered a subjective structure. Understanding classes is possible by understanding the habitus defined as social “dispositions”. Also, basic determinant of habitus is lifestyle. Consequently, Bourdieu places symbolic determinant at the center of the class relations and suggests that the way to measure this symbolic determinant is focusing on the lifestyle in practice (Weininger, 2005). He determines three fundamental dimensions; volume of capital, composition of capital and potential trajectory in social space. Individuals in similar positions of each dimension have a similar class situation (Bourdieu, 1979 [1984]).

Fundamental classes of Bourdieu divide according to volume of capital. So, there are three basic classes: Dominant class (upper), petty bourgeoisie (middle) and public class (working class). On the other hand, each stratification has their own habitus and lifestyle. Dominant classes have a habitus based on “distinction”. Petty bourgeoisie make attempt to follow “etiquette ideas” of the dominant class, but they lack the essentially economic and cultural capital. Their habitus can be defined as “idea of social ascent”. On the other hand, public classes are surrounded by a habitus and physical force (Unal, 2017).

What makes Bourdieu so important is not only detecting fundamental classes or having an extensive perspective on capital phenomenon. He examines differences in the lifestyle of each class based on the rich statistical data in detail. How does he relate these lifestyle indicators to individuals? In the Bourdieu’s multidimensional approach, indicators based on lifestyle certainly cannot constitute class alone. These indicators are related to class fractions based on occupations, level of education and demographic features. In fact, he attributes primary importance to the lifestyle factors are called social extensions.

Class discussion based on lifestyle patterns, habits, consumption and consumption behavior is certainly attractive in the liquid structure of contemporary society. Though, how these determinants constitute class is a very controversial issue. In this point, features

of individuals to aggregate related determinants is needed. Particularly, Bourdieu sought to build a strong balance between the symbolic determinants and the social positions. As it was discussed in the thoughts of both Veblen and Bourdieu, there is a symbolic field which is difficult to measure. However, this field is very remarkable on the dynamics of contemporary society. Veblen is a very precious theoretician because he stands against “rational choices” and puts the consumption in the center of symbolic domain. Also, Bourdieu attempts to make intangible domains which can constitute classes measurable.

2.4. Contemporary Class Debates

2.4.1. Contemporary Class Debates in Western Literature

In the case of classes, a title in the form of contemporary literature indicates extensive and complex content. In this section, fundamental class theory from different perspective will be discussed. All contemporary discussions, will take place here, based on the context of the thesis.

Neo-Marxist Eric Olin Wright is the very instructive theoretician to understand general frame of unconventional discussions. In “Approaches to Class Analysis” is published in 2005, he gathers seven different articles which contain seven different class discussions in different theoretical perspectives. Each discussion builds on a specific question about class and presents different perspective to understand modern social relations. Wright makes significant contributions to the contemporary class literature by re-discussing Marxist concepts. Furthermore, he emphasizes that approaching classes in the Marxist terminology would not mean to exclude any other perspective. Importantly, he criticizes the common exclusion of Marxist terminology from the empirical studies and contributes to this field.

At first, “class consciousness” on his thought will be introduced, because this is very remarkable concept to understand his fundamental approach. He points out “supra-individual” definition cannot describe rational, preferential individuals (Wright, 1985). So, Wright treats class consciousness as a phenomenon which revolves around the subjective determination of class relations. In this case, one needs to ask a question like

whether individuals have attitudes compatible capitalist or working class. For Wright there are “contradictory locations”, so he embarks a new exposition of the Marxist discussion.

In the Wright’s thought, “contradictory locations” is the main concept. He suggests this concept in “Classes” with comprehensive conceptual discussion and empirical investigation. In the book, Wright suggests three measures to determine class locations: Control over the flow of resources and investments into production (money capital), control over physical means of production and control over labor. First two criteria indicate a two-pole definition between having and not having control. This approach particularly corresponds to Orthodox Marxist terminology. However, there are different class locations which are referred “contradictory locations”. Wright also determines three class positions which are excluded from polarization between bourgeoisie and proletariat: managers, semi-autonomous employees and the petty bourgeoisie. In contradictory locations dynamics, managers are close to workers, because they have not inflow of resources and investment. On the other hand, they are close to capitalist because of control over the other’s labor force in the production process. Semi-autonomous employees have not investment but unlike managers, they also have not authority over the other’s labor. But they correspond to capitalist in the context of control over direct means of production. Petty bourgeoisie have investment resources and physical means of production, but they never reach large-scale capital investment and they can employ only a few workers. To sum up, Wright determines the contradictory locations which neither be exploiter nor exploited in the social position and leads a new path into the Marxist class debates.

Furthermore, Wright’s class schema is a major contemporary approach in the class debates which focus on production relation. At the end of his famous study “Classes”, he transparently shares structure of survey to readers. Thus, clear knowledge for quantitative background of his class debates can be obtained. It should be state that, although Wright develops Marxist discussion into the empirical field, he does not miss the necessity of transforming concepts. Fundamentally, he specifies two concepts; “contradictory location” for class location between capitalist and workers and “state mode of production” for analysis of post-industrial society rather than Marxian capitalist-socialist production relation. At the empirical part, Wright approaches to structure of class typology via three

types of assets: organizational asset (decision making, authority and hierarchical typologies), skill / credential asset (occupational, educational, job autonomy) and capital ownership (self-employment, number of employees). It is evident that Wright's survey presents comprehensive perspective on individual's occupation, authority, monitoring and hierarchy. Survey involves detailed questions to measure individuals' role in decision-making process, capital sharing (as capitalist or shareholder), supervision on other's labor force, hierarchical position and autonomy for wage-earner at workplace etc. Consequently, he creates his famous class schema in the light of extensive information and solid theoretical knowledge (Wright, 1985).

In the study of Wright and Perrone (1977), Marxist class categories, are constructed in Wright's schema, are rediscussed in a quantitative approach based on social stratification and income inequality. Instead of occupation variables, authors use "class categories" which constitute common positions (via authority, monitoring etc.) of production relations. In fact, study purposes to find basic relationship between occupation, education and income indicators. It includes different interpretations according to results of regression analysis. Only most important two results will discuss here. Firstly, study compares explanatory power of occupational status and class position. According to result, class position has much powerful effect on understanding inequality. Secondly, basis of the status approach on the class position lead to find interesting relationship between these variables. In this study, returns to education is not stable between different strata of the class categories. In the managerial categories (have authority), return to education is greater than working class categories (have no authority).

In the Neo-Marxist class theories, "exploitation" is another remarkable concept beside middle-class discussions. Labor-value theory is insufficient in the dynamics of modern capitalist society context. So, some Neo-Marxist theoreticians rediscuss exploitation based on the Marxist terminology and develop analytical perspectives on the social analysis. They reconstruct basic notion of Marxist theory via the analytical methods. In this perspective, two important theoreticians; John Roemer and Aage Sorensen will be introduced. Their discussions are based on extensive analytical background; however,

only how they reargue concept of exploitation and approach to class occurrence will be briefly introduced here.

Exploitation concept which is the center of Wright's theory, inspired from Marxist theoretician John Roemer. In the "General Theory of Exploitation and Class" in 1982, Roemer extends meaning of exploitation and emphasis inequality over the income distribution and unequal employment condition. He remarks a motto which is inspirational for recent studies based on the middle-class and inequality issues: There is inequality in which someone's welfare is at the expense of others' benefits (Roemer, 1982).

The welfare of the rich depends on the deprivations on the poor because they are rich at the expense of others. There is a strong causality between rich and poor stratifications of society. Roemer elaborates concept of exploitation by creating analytical strategies and adapting concepts to the current field. He develops analytical models according to the preferences of individuals in production relations. Consequently, he makes a common inference: market-based exploitation and class relations are derived from unequal distribution of property in the means of production. Individuals decide one of the different choices such as employ labor power, sell labor power or work with their own means of production. So, different classes consist as depend on these choices. As a result, Roemer examines features of class location as depend to exploitation mechanism: Classes create labor which is appropriated by others (capitalist, small employer), people appropriate labor force of others (semi-proletarian and proletarian) and people in the contradictory locations which neither be exploiters nor exploited (petty bourgeoisie) (Wright, 1985).

Another theoretician who discusses classes based on the importance of the concept of exploitation is Aage Sorensen. Primarily, Sorensen (2005) criticizes approaches based on lifestyle, status, income determinants because he supports that they are inadequate on the inequality issue. Usually they only refer to inequality is created by the market and various mechanisms. Like Roemer, Sorensen stresses an inequality which serves someone's benefit and creates exploitation. Basically, Marx's concept of exploitation was based on property. On the other hand, neither Sorensen nor Roemer reject the basis of the concept. However, they expand meaning of exploitation. In this point, Sorensen also criticizes to Roemer and emphasizes that not all the wealth should be accepted as the source of

exploitation. Thus, he imposes a restriction on the definition of property related to exploitation: property of “rent-producing assets”. What does Sorensen explain with the concept of rent? Basically, Sorensen defines rent as “the advantages that prevent other actors (exploited actors) from realizing the full return on their assets/labor” (Sorensen, p. 131) Sorensen gives an example to make this definition more comprehensible. When there is no alternative employment, mining workers probably continue to work despite low wages. In this situation, owner of mine can obtain the rent by “control of the source of the assets”. On the other hand, his “property” definition is unusual besides of his thought on the exploitation. He describes property as a way of constituting hierarchy of the contemporary capitalism. Consequently, he makes an important contribution to the literature by defining the current mechanism which creates exploitation and inequality within the capitalist relations. On the other hand, he adapts conventional concepts into the quantitative methods like Wright and Sorensen.

Roemer and Sorensen discuss classes in exploitation and inequality perspectives. The fact that they discuss the classes by developing analytical methods which are different than conventional Marxism. Also, theoreticians such as Nicos Poulantzas approaches classes based on the traditional Marxist perspective, so particularly focus on only reconstructing concepts rather than the analytical methods.

Middle-class is one of the core issues of the current class discussions. Usually, studies focus on analyzing the middle-classes’ behavior patterns, their common areas, living conditions and dispositions of them to catch upper-class lifestyle. In such studies, middle-classes are mostly defined according to their position in the income distribution, occupational status, degree of occupational authority or status etc. On the other hand, Neo-Marxist theoreticians approach to middle-class discussions via Marxist conflict terminology. To understand these two different perspectives, thoughts of a remarkable Neo-Marxist theoretician; Nicos Poulantzas will be briefly introduced here.

Nicos Poulantzas is a Marxist political sociologist which rediscuss the class location in the Marxist framework. At the “Classes in Contemporary Capitalism” is published in 1975, he reargues most criticized issue in the Orthodox Marxist approach; middle-classes. Labor and distribution are the starting point of his class definition. Significantly, he

realizes that a reconstruction of concepts in contemporary capitalist society is needed. In the first step of his analysis, he revives Marxist productive and unproductive labor discussion according to position in the means of production. Productive labor is defined as “labor which is directly corresponds to relations of industrial production”. According to his fundamental argument, productive and unproductive labor discrimination exclude workers from middle-classes. In this regard, not every wage-earner is necessarily productive worker. Consequently, he defines non-productive wage-earners as “new petty bourgeoisie”.

According to Poulantzas (1975), understanding social classes need politics and ideologic spheres besides economics. Economic determinant only tells us unproductive labor differs from the bourgeoisie and has not ownership of means of production. But this is not adequate to understand class dynamic in the contemporary society. So, classes must be evaluated under the effects of economic, politic and ideological spheres (Kosar, 2017). Also, political and ideological criteria have different discriminations in the productive labor. At the political sphere, if a headworker has supervisor qualifications, this headworker implements political domination on the other workers. There is a contradictory class position which depends double nature of their work, thus this headworker must be excluded from workers. They are a part of “new petty bourgeoisie”. However, these workers have limited authority and they work under the pressure of senior managers and supervisors. This fact is a criticized point in Poulantzas analysis. At the ideological sphere, Poulantzas makes mental and manual labor distinctions. There is another contradictory class which directly involve producing surplus-value but have different skills rather than workers in the context of ideological sphere. If considering the boundaries of the economic criteria; engineers and technicians might get involve the workers, because their labor directly makes contribution to the production process. However, ideological distinction grounds their intellectual potencies of the material process of production. They are excluded from workers due to having “knowledge of production process” and they should be a part of the new petty bourgeoisie.

The lack of consensus on what constitutes the class lead to extensive diversity in class approaches. However, there is an enormous diversity at the outside of the Marxist

convention. Anthony Giddens's thoughts on the structure of advanced capitalist society and social stratification will be good beginning to discuss non-Marxist perspectives.

American sociologist Anthony Giddens does not suggest a specific class theory, but in his most-cited study "Sociology", he expresses his opinion on social classes and introduces contemporary discussions. He begins by defining "stratification" and draws attention to the point: Although stratification is frequently evaluated in terms of property and wealth dimensions, it is also constituted by several social dimensions such as religion, military rank, gender, age, life opportunities, experiences etc. Stratification can be directly based on inequalities in the society, but it does not directly constitute classes. Giddens also emphasizes discrimination between stratification, such as slavery, caste, estates, and the class. He describes class as "large-scale masses who share common economic resources which create their lifestyle". He highlights importance of wealth besides the occupation. Furthermore, he lists features of classes which different from any other form of stratification. Classes are fluid and open to social mobility, also they are economics-based. Lastly, classes do not appear in the unidimensional, personal associations. It needs much complex and large-scale basis than stratification (Giddens, 2006).

Giddens provides a general framework about class notion. Although, the economy an unconditional dimension, it is not adequate alone for constituting social stratification in society. So, he highlights other dimensions to catch the contemporary dynamic.

The impossibility of consensus on classes has been stated. Is it also impossible to embody the classes which are the most important phenomenon to understand society? Goldthorpe class schema, is created by J. H. Goldthorpe, is the most remarkable study in this point. Goldthorpe usually is referred as "Neo-Weberian", but he did not accept such kind of classification (Sorensen, 2005, p. 122). First version of the schema was shaped in the 1980's, but most-cited revised version is constructed in 1992 with Erikson (Erikson & Goldthorpe, 1992). At the background of schema, "Oxford National Occupational Mobility Enquiry" in 1972 is used. He begins to express main purpose of creating schema with "mobility" concept. According to Goldthorpe, mobility has dual meaning; first meaning is "movement of individuals between social positions that identified in terms of relationship in labor market and production units". Second meaning is "movement of

individuals between social groups that are ranked according to criteria such as prestige, status, economic resources” (p. 29). Goldthorpe suggests that focusing on relations within labor market and production unit and describes the main purpose of the class schema as “differentiate positions within labor markets and production unit or, more specifically differentiate position within the employment relations” (p. 37).

Briefly, Goldthorpe schema is divided into three main characteristics of stratification: Employers, who purchase labor and have authority over them; self-employed workers (freelance) and employees, who sell their labor and are under the capitalist authority. 11 class locations in the schema are shaped according to these three main stratifications. There are several criteria such as authority, knowledge, control over others labor, bureaucratization of labor and organizations, division of occupation, job rewards and entry requirements and the nature of labor contract and employment conditions to constitute the hierarchy between class locations. All of them are defined “employment relations” in general (Bergman & Joye, 2005).

Goldthorpe schema provides a standard class hierarchy that can be adapted to many researches. He remarks on indicators which constitute classes outside of exploitation-authority dimensions, as different from the Wright schema. Consequently, he evaluates the position of individuals in their relations of production from various different perspectives and attempts to embody their class positions. However, this is an occupational-based schema and occupational class schemas have received some critics. In this point, two critiques of the Giddens on the occupation-based class schema are very remarkable. According to Giddens, occupational class schema excludes “economically inactive” people. Moreover, occupational status titles might cause confusion. Currently, upper class of society might involve both high-level professionals and the richest member of society such as investors, entrepreneurs, financiers etc. Also, these investors can refer “director”, “executive” in occupation. On the other hand, most senior professionals, managers can get share of firm’s profit despite their wage-earner status in the current capitalist employment relations. Despite all critics, Goldthorpe schema is the most-cited study in the quantitative class discussions which focus on relationship between class positions and several other dimensions (Giddens, 2006).

Goldthorpe class schema especially is convenient for empirical implementations, so it inspired many researches. Accuracy of Goldthorpe schema to determine class location and to catch contemporary dynamics in employment relations is discussed in different contemporary studies. In this regard, Evans and Mills (1998) present an interesting study to measure validity of the schema. They examine the validity of Goldthorpe and Erikson schema on defining employment relations. They use publicly available and national representative “Social Class in Modern Britain Survey” and create a set of variables which involve several different indicators on employment relations. According to latent class analysis results, they obtain four latent classes and examine them as correspond to Goldthorpe class locations sufficiently. On the other hand, Elias and McKnight (2003) use “British Household Panel Survey” for their research which focuses on measuring relationship between class position and the risk of unemployment. According to their result, working class highly correlates to risk of unemployment. Also, Breiger (1981) uses Weberian social class concept in his empirical class mobility approach. He divides classes according to single occupational status and test duality with respect to “interclass mobility” and “occupational mobility”. He aggregates father’s and son’s occupation in the occupational mobility table. His major classes are ordered with respect to typical mobility chance.

2.4.2. Contemporary Class Debates in the Literature in Turkey

Classes have multi-perspective landscape in the contemporary literature in Turkey. There would be sociologic, economic and politic perspectives. There are precious approaches that discuss classes in the context of state, power and society in a historical conjuncture, but these approaches will be excluded from this literature debates context. Although there are several theories which are defined as Marxist or Weberian, finding approaches which have explicit contribution on reconstructing concepts or methods is quite difficult. In this section, different class approaches in the context of the thesis will be discussed.

Korkut Boratav is very important theoretician who contributes Marxist class discussions in Turkey. Boratav (2005 [2016]) creates a conceptual class schema based on distribution relations. According to his fundamental argument, the main motivation underlying the classes is production relations. So, social stratification is constituted according to the

appropriation to the surplus mechanism. The study in 1991, “primary distribution relation” is defined as the appropriation mechanism on the surplus labor while “secondary distribution relation” is defined as re-appropriate via inside and outside mechanism. According to his two class schemas; social classes are determined via primary distribution relation, when social stratification and groups are determined via secondary distribution relations.

In another study, Boratav (1995) recreates his class schema into the urban-rural levels and refers different features rather than distribution relations. Although mechanism which create rural classes almost the same with previous study, disengagement from the surplus content is observed in the urban class mechanism. In this regard, the value of employment in the market condition is highlighted. So, in the urban areas, employer (small, middle and major scale employer, craftsmen and marginals) and wage-earner (high-qualified employees, white-collar workers with a certain level of training or expertise, unqualified service workers and blue-collar) discrimination is observed. In the rural area, the appropriation on the surplus is still decisive.

Boratav determines class locations based on distribution relations, so Boratav’s schema presents a distinctive approach in the literature of Turkey. There are studies which approach to Boratav’s schema in various context and compare it to Goldthorpe and Wright’s schema. For example, Bahce, Gunaydin and Kose (2011) create class schema based on “Household Budget Survey” published by TUIK. Since dataset contains income and expenditure information on both individual and household levels, class schema is created for household and individual in a separate way. In the first stage of the study, how total population distribute to class positions according to employment status is determined. In both household and individual level, the highest share is the most heterogenous in the working classes (78% in individual, 57% in household level). In the second stage of analysis, mobility between these class positions is examined. According to results, unemployed has the highest rates of class mobility, but working class follow them in the second rank. On the other hand, class mobility is rigid in the capitalist, bourgeoisie and peasantry. The study’s survey has a similar structure with “Household Income and Living Conditions” survey which is used in this thesis. Consequently, it is not possible to gain

information on authority, domination and employment relations as it can be in the other class schemas. Although the class locations correspond to Boratav's class schema, these locations are constituted based on simply income dimension.

Aktas (2001) focuses on a comprehensive dataset "Turkey Values Survey" which is an extension of the "Word Values Survey". The variables include various behaviors and attitudes which are distributed according to occupations, education, current job status etc. The sample based on the household reference person, also information on the employment situation of the reference person is implicated in the study. It constitutes class position according to Wright, Goldthorpe and Boratav schemas, then compare these approaches each other. However, the survey does not enough to determine the locations in these schemas. It does not involve variables which indicate to authority or urban-rural discrimination. On the other hand, these three class schemas are adapted to a study that examine common behaviors and attitudes within different social classes. According to results; while employers, professionals and managers exhibit conservative attitudes in line with the exploitation approach; farmers and workers respect to relatively left ideology.

Identifying middle-classes in the context of their common lifestyle and reactions prevail in the class discussion of Turkey. Middle-class studies usually focus on consumption patterns, lifestyle and employment issues. Generally, middle-classes are defined according to individuals' common features and attitudes based on their income and occupation in such researches.

Although Caglar Keyder (2013) approaches to classes in the context of state and society, also he makes a definition on the middle-classes. According to his thought, "education" and "semi-authority against employers" are the most important criteria to define middle classes in Turkey. He also suggests that middle-class expansion can be examined based on modernization, urbanization and increased supply in the service sector.

"Profile in Middle-Income Class in Turkey" which is published by Balikcioglu and Dalgic in 2015 is another example for the middle-class discussions. They use "Household Income and Living Conditions" survey which is similar to the dataset of this thesis. This study constitutes class definition only according to income indicator. Middle-class is defined as the individuals (based on household reference person) between %70-150 household

median income. According to this, the middle-classes correspond to %40 of the total population. After that, study focuses on the relationship between selected variables such as education, employment sector and income-oriented middle-classes, thus it purposes to presents a middle-class profile in Turkey. Furthermore, the study suggests that middle-classes have weak reactions against income inequality in comparison with other stratification (Balikcioglu & Dalgic, 2015).

On the other hand, Uca (2016) also focuses on determining middle-class profile via a field study. To define middle class, he emphasizes a very similar point to Poulantzas' unproductive labor definition via "immaterial labor". Immaterial labor is defined as "non-organized labor which enables capital to circulate all over the word and use the cheap labor force" (p. 14). According to the results of the field study, four major characters are fictionalized and in virtue of this narrative technique, profile of middle classes in Turkey is detailed. The researcher interviews with only white-collar employees, as part of the immaterial labor force in Istanbul. Beside individuals' position in the relations of production, their responses on consumption motivation and lifestyle are analyzed. As the result of responses, a remarkable result is suggested; "consume for produce". It means that "production is not only production of commodities, but also the production for how to consume the consumption object". Consumption is very important motivation to keep middle-class position in the daily employment relations. In fact, this motivation might similar to emulation motivation in Veblen's theory. Although this study highlights an important point, it considers only the white-collar service sector employees as the middle classes are based on a remarkably small sample size.

2.5. Overview

In the literature debates, discussing significant theories about classes was purposed. How the thesis approaches the class discussion will be specified in this section. Theoreticians will be placed in a schema according to their corresponding features in concepts and methodology.

Discussing classes through lifestyles and behavioral patterns, focusing on what features intersect each other and which common areas can be obtained are certainly attracted

perspectives in the contemporary dynamics. However, how determining class strata is a critical problem at this point. As it can be seen in the Wright and Goldthorpe, some theories focus on the determining strata and try to find an answer for structure that constitutes classes. But the others, only purposes analyzing the relationship between different strata based on extensive lifestyle patterns. In this kind of studies, class positions are determined according to some basic features; income groups, status, position at the employment relations, family and education background etc. After that, different and common features of these class positions are analyzed via different variables. Lifestyle, political choices, expenditures and consumption, behaviors in labor organizations, consumption and saving habits and priorities could be determinant of the analysis.

To make order the approaches which are discussed throughout the literature review, some theoreticians will be placed in a position on the defined axes according to their dominant concepts and methodology. It should be noted that the purpose of drawing a schema is not to conclude a definitive verdict on any approaches.

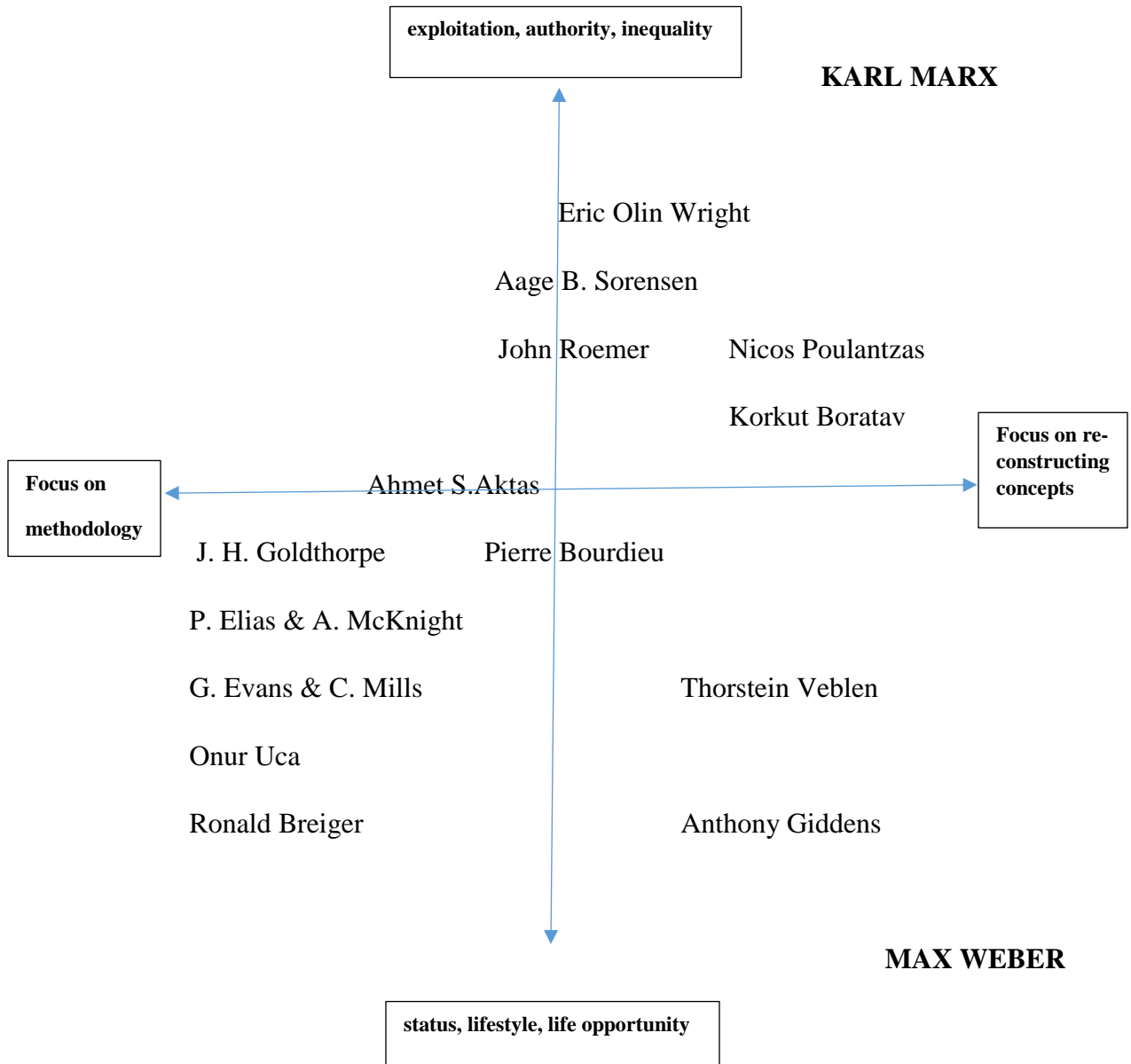


Figure 2.1: Schema for Literature

In the schema, to place each approach in an absolute position is not possible. This is the expected situation in terms of the multidimensional perspective as highlighted at the beginning of the literature review. For example, Sorensen and Roemer contribute to both empirical approach and reconstructing exploitation concept. Also, Eric Olin Wright widely contributes to middle-class discussion, he is the most important theoretician which adapts Marxist terminology to empirical studies at the same time.

The thesis does not purpose to determine the class position in any context. In this respect, it is far from the approaches which construct the class schemas. Also, it does not particularly re-discuss the concepts. Instead, analyzing structures which can possibly constitute classes against economic and living conditions is purposed. This is what will be analyzed in the second part of the thesis.

3. EMPIRICAL ANALYSIS

3.1. The Method

Accessing certain quantitative data on economic realities of people is not easy. This is even more difficult if these economic aspects are based on indebtedness and expenditures. On the other hand, when the consumption becomes a dominant component in the social dynamics, perspectives based on living conditions, economic preferences, consumption-indebtedness relationship, expenditures-income balance turn into controversial and interesting issues. Discussing contemporary dynamics needs unconventional approaches.

Bourdieu and Veblen carry the dynamics of status to the non-material, symbolic domain. Bourdieu embodies this domain defined as “habitus”. On the other hand, Veblen embodies “invisible benefit” from the “conspicuous consumption” perspective. In the middle-class discussions in Turkey, Uca (2016) tries to examine the consumption habits of middle-classes which is defined as “immaterial labor” concept, via in-depth interview survey. In this study, individuals mention other people’s consumer behavior rather than their own. Although such studies reach deep knowledge about behaviors and preferences of different social stratifications, dominance of subjectivity is inevitable. At this point, one needs to ask a question: Is an objective approach to the economic reality of individuals possible? Such a claim is quite difficult to put forward.

In this study, “Income and Living Conditions Survey” is used as the appropriate data to enable an objective approach on economic realities and living conditions of people. The survey provides information on burden of payments in various kinds of debts, capability to cover different types of expenditures, income, general living conditions and livelihood satisfaction via ordinal, categorical variables. Furthermore, it leads to access all the information according to features of individuals such as level of education, occupational

status, status in production relations, several kinds of information on their employment relations, demographic information etc.

Although appropriate dataset is important for the discussion, the most important point is how this mass of information can be analyzed without breaking away the basic theoretical interest. What constitutes classes is a difficult question to answer. Maybe, asking the question in a different way would be better: Is it possible to create “class landscapes” in a multidimensional approach? In accordance with this question, finding a method to bring together the variables, which represent economic realities and living conditions of individuals with their features, that can constitute class locations is purposed.

13 categorical variables have been chosen from household dataset in “Income and Living Conditions Survey” as representation of economic and living conditions component in the analysis. As stated at the introduction of the thesis, the fundamental purpose is not to determine the components which constitute classes and to present an absolute class schema. The fundamental aim is bringing together the features which might possibly constitute class structure with the economic and living conditions. Thus, obtaining straightforward landscapes of classes and analyzing what kind of landscapes emerge can be possible in the class discussion. The best way to create purposed landscapes is Correspondence Analysis (CA), because it is a simple, associational method to present relationship between categorical variables (each response of individual to 13 indicators) in the two-dimensional visual. In this regard, when economic conditions will constitute one component (column categories), selected features of individuals will constitute the other one (row categories) in the separate CA biplots.

However, economic and living conditions refer to a set of variables that contain 13 categorical indicators on indebtedness, expenditures and basic living conditions. In fact, combining each indicator with each feature will create a complex and meaningless view. Furthermore, each variable of economic condition has not same importance. For example, possibility of covering unexpected expenditures or buying new clothes and ability to regular payment of mortgage credit have not equal contributions to general condition. By this way, a method to give a weight to each category is searched, and the answer was found in multivariate version of CA, Multiple Correspondence Analysis (MCA).

Basically, MCA is defined as “describing, interpreting categorical data and generating hypothesis” by Michael Greenacre contributing to development of the method (Greenacre, 2007). The basis of MCA is simplifying multidimensional data. This analysis shows how several categorical variables can be brought together at a level of significance. Also, there is another important feature that differs from other multivariate analysis. MCA is the most appropriate method to obtain contributions and aspect of each categorical variable of indicator and their interrelations. Positive and negative relationship between categorical variables (responses of questions) can be easily appointed with their explanatory values in MCA. So, constituting an objective weighting method for each categorical variable can be possible. In this regard, each person can obtain a single “aggregate score” according to their responses to questions. Moreover, “aggregate scores” can be brought together with features of individuals in a separate way. In this stage, “Correspondence Analysis” (CA), two-way simple version of MCA, leads to a simple visualization to obtain the relationship between aggregate scores and selected features of individuals. Thus, how each feature, which may possibly constitute class structure, creates a landscape in the face of living and economic conditions will be examined at the end of empirical analysis. Also, considering each feature separately will support a distant approach against the question of what constitute class positions in the society.

Consequently, the empirical implementation will be summarized in two steps:

- **First Step:** Reducing multidimensionality of economic conditions is purposed before constituting CA biplots. Contributions of each categorical variable will be determined with the objective weighting method via MCA. Thus, constructing “aggregate scores” for individuals will be possible. By this way, each person can obtain an aggregate score according to their responses and economic conditions. This will constitute one component of CA biplots.
- **Second Step:** Aggregate scores and features of individuals such as occupational status, status in production relations, education and income, will be brought together in a single graphical visual via CA. Because each feature will be brought together separately with the aggregate scores, the landscapes of features in the face of economic and living conditions will also be evaluated separately.

In the following section, firstly rearrangements and restriction in the data will be introduced. Secondly, MCA will be discussed in a general framework. Thirdly, two steps of the method will be presented with results. Consequently, obtained graphs will be discussed in accordance with the purposes of the class approach of the thesis.

3.2. Data Description

In this section, structure of dataset will be introduced before the implementation of analysis. Reasons for choosing the dataset, sample, all adjustments and variables will be expressed. On the other hand, the data structure of other empirical researches which were discussed in the literature debates, will be referred to define the background of analysis in a more comprehensible and comparative perspective.

In the empirical side of the class debates, despite some researchers construct their own theory-focused survey (Wright, 1985), others analyze publicly available survey. For example; Elias and McKnight (2003) use “British Household Panel Survey” in their research which focuses on measuring correlation between class position and the risk of unemployment. Evans and Mills (1998) use publicly available and national representative “Social Class in Modern Britain Survey” for their Goldthorpe-inspired research which supports the poorness of occupational approach in the class analysis. Most-cited Goldthorpe Schema is also shaped under the “National-Enquiry Dataset” via CASMIN project (Goldthorpe & Llewellyn, 1974). Furthermore, National Statistic Socio-Economic Classification (NS-SEC) is developed by Goldthorpe class schema and involves many studies to obtain multinational occupation scale.

The thesis will follow the household approach with “Income and Living Conditions Survey” which is annually conducted by the Turkish Statistical Institute (TurkStat). TurkStat defines major purpose of the survey as “to supply comparable data on income distribution, living conditions, social exclusion and relative poverty based on income” (Turkish Statistical Institute, 2018). Although annual reports of survey are published by TurkStat at the official website, accessing micro dataset requires approbation. TurkStat carries out this survey since 2006 with panel data method. The survey enables analysis which focuses on the basis of economic and living conditions differences between

stratifications via educational, occupational, annual income earning and other features of members of society.

The micro dataset is structured in terms of households and individuals. Individual dataset includes information on features of individuals such as education, occupation code, employment and working status, demographic information etc. On the other hand, household dataset presents categorical variables on general conditions of house, household indebtedness, living conditions, burden of installments and debt payments, capabilities of different kind of expenditures etc. When the purpose of the thesis is taken into consideration, it can be concluded that these two datasets must be brought together. In accordance with this purpose, merging household and individual datasets via household reference person was decided. Because household questions of panel survey are directly asked to household reference person who is representative of the house, this person must have full information about the household's economic and living conditions. It is defined as "the adult member of the household who is responsible for the management and livelihood of the house with full knowledge about the personal features of all the other members and socio-economic conditions of the house" by TurkStat. Thus, to access information about economic and living situations, reference person's education level, occupation code, employment status etc. are merged to household dataset at the first step. Although panel survey presents extensive income variables such as total annual individual income, annual net income from primary occupation, all transfers to individual and house, it was decided to use "overall disposable household income", because it is presentative for whole conditions of the house. Finally, after reference persons were listed, the responses of them on the economic and living conditions were collected.

In the second step, the merged dataset was rearranged with some restrictions. The most significant reason for the rearrangements is due to the fact that temporarily employed or unemployed people could cause deviations in the results. In fact, this is a somewhat controversial issue. As it was discussed in the theoretical debates, Anthony Giddens criticizes Goldthorpe and Erikson schema, because they exclude "economically inactive persons" from the class analysis (Giddens, 2006). On the other hand, determining authority and power relations on the classes, or status-based approaches require

economically and socially active people in the society. Other issues such as family background, marriage, heritage status might be of interest in different researches. Because the thesis focuses on the several economic determinants to understand stratification dynamics, excluding economically inactive people would be an appropriate approach in analysis.

After all restrictions, size of the sample was 8,633 which includes reference persons who are employees, wage earners or self-employed who have been working full or part-time for last 12 months. Furthermore, 2016 was chosen as the base year. After the household panel survey was merged and restricted, appropriate data has been provided for implementation of the analysis.

On the other hand, class locations in the class schema that are created by theorists such as Wright, Goldthorpe, Boratav involve determined concept and they have the distinctive structure. However, the thesis aims to show class landscapes based on the relationship between aggregate scores and selected features. In this regard, the analysis adheres to TurkStat standard variables of “Income and Living Conditions Survey” for occupational status and education indicators. So, there is no opportunity to examine authority or superior-subordinate relationship in the context of occupation. Instead, “International Standard Classification of Occupations” (ISCO-08), which is used by the TurkStat, is utilized in the analysis as occupational status indicator. Because especially occupation status is an important aspect of the class debates, ISCO-08 will be detailed in a comparative perspective with NS-SEC which is background of Goldthorpe class schema.

ISCO was adopted by International Labor Office (ILO) in Geneva, Switzerland. The version in this study (ISCO-08) was developed in 2007 as the fourth version. The fundamental aim of classification is creating a tool for international occupation groups in all types of researches. On the other hand, ISCO corresponds to sectoral-oriented occupational approach. Consequently, ISCO-08 does not suffice alone to attain an occupational analysis which involves features of occupational status.

Although ISCO gives limited information for conditions of occupation, The National Statistic Socio-Economic Classification (NS-SEC), which is developed from the most-cited Goldthorpe schema, enables the extensive description on occupation and

employment relations. NS-SEC considers different issues such as labor market position which is source of income, economic security and individuals' authority, control at work (Office for National Statistic). It involves three forms of employment regulation such as service relationship, labor contract and intermediate. To explain briefly, service relationship indicates immediate and long-term benefit of employee (for example salary and career opportunities, respectively); labor contract measures the amount of work done and intermediate is a regulation which combines aspects from both the service relationship and labor contract. (Office for National Statistic) To derive NS-SEC, there are categories of questions such as occupation, employment status, size of organization in the interview survey (totally 8 questions). So, obtaining a specific classification which includes authority, employment relations, and labor contract in an in-depth perspective is possible with NS-SEC. However, a multinational standardized occupational classification is not enough alone to directly discuss specific perspectives of classes. Table 3.1 gives the categories of both ISCO-08 and NS-SEC (without sub-groups, only analytical classes).

It should be noted that NS-SEC has categories for economically inactive people. Even though it is based on the Goldthorpe Schema, Goldthorpe schema does not include the analysis of unemployment or people who have never worked.

Table 3.1: ISCO-08 and NS-SEC (analytical classes) Comparing

International Standard Classification of Occupations 2, 3 and 4 Digit (ISCO-88)	The National Statistics Socio-Economic Classification (NS-SEC)
<ul style="list-style-type: none"> 1) Legislator, senior officials and managers 2) Professionals 3) Technicians and associate professionals 4) Clerk 5) Service workers and shop and market sales workers 6) Skilled agricultural and fishery workers 7) Crafts and related trades workers 8) Plant and machine operators and assemblers 9) Elementary occupations 	<ul style="list-style-type: none"> 1) Higher managerial, administrative and professional occupations <ul style="list-style-type: none"> 1.1. Large employers and higher managerial and administrative occupations 1.2. Higher professional occupations 2) Lower managerial, administrative and professional occupations 3) Intermediate occupations 4) Small employers and own account workers 5) Lower supervisory and technical occupations 6) Semi-routine occupations 7) Routine occupations 8) Never worked and long-term unemployment

Source: Office for National Statistics

<https://www.ons.gov.uk/methodology/classificationsandstandards/otherclassifications/thenationalstatistics/socioeconomicclassificationnssecrebasedonsoc2010>

In conclusion, because the thesis purposes focusing on how indebtedness, expenditure dimensions aggregated and then distributes different features of classes, standardized classification of variables were used in the analysis. “Income and Living Condition Survey” is respective research, moreover it can access to large sample in Turkey. It includes favorable information which corresponds to fundamental purpose of the thesis. In the following sections, procedures of empirical implementation of data will be expressed.

3.3 Empirical Methodology

3.3.1. Multiple Correspondence Analysis

In the “Income and Living Condition Survey”, each response to questions are called categorical variables. In a basic regression analysis, the relationship between variables are expressed by the mathematical equation. However, there is need for an analysis which represents the relationship between categorical variables of an indicator or the relationship between categories of more indicators. MCA represents the relationship between categories (responses of questions) of different indicators (questions) in a single graphical visual (Ozgoren, 2007). If only a relationship between two categorical variables (such as the relationship between alcohol consumption and education) is to be examined, Correspondence Analysis which is a two-way simple version of MCA is used in the same procedure. Fundamental purpose of MCA is defined as “revealing the association within one set of variables, where the focus is on how strongly and in which way these variables are interrelated” by Michael Greenacre who developed the analysis (Greenacre, 2007, p. 137). MCA gives associations between categories of variables, ordinal answers of each question in other words.

The basic purpose of the analysis can be determined as finding the most satisfactory two-dimensional space for distribution of categorical variables. When MCA is applied, table of selected variables gives “**total inertia**” value. This total inertia is **chi-squared distance** of the distributions of variables around the center. Chi-squared distance is expressed by

$$X^2 = \sum \frac{(\text{observed} - \text{expected})^2}{\text{expected}} \quad (1)$$

The objective is reaching a total inertia as high as possible. In this situation, points (categorical variables) on the graph are scattered far from the origin. This means that dependence between categorical variables is higher (Ozgoren, 2007). Total inertia is separated into the optimal principal inertias or percentage of total in other words (Greenacre, 2002). **Principal inertias** show the explanatory value of each dimension and usually, first two principle inertia values are the major part of the total variance. Because

it is not very possible to observe or imagine points (categorical variables) in space with more than two dimensions, MCA has “reduction of dimensionality” assumption. At the output of MCA implementation by statistical package, sum of the values of dimensions is equal to total inertia value (Greenacre, 2007).

Consider that, J is the number of variables and K is the number of categories of variable. Representation of total inertia is as follows:

$$A^2 = \sum_{j=1}^J \frac{K_j - 1}{J} \quad (2)$$

As it was stated above, MCA is the extensive form of CA. So, MCA allows one to analyze the relationship between several categorical dependent variables (Abdi & Valentin, 2007). On the other hand, CA focuses on the two set of categorical variables where the row variables are different from the column variables (Greenacre, 2007). In this regard, there is a fundamental difference between CA and MCA. Unlike CA involves both determined row and column profiles, MCA ensures only column profiles. So, MCA provides a column plot which lies on the column coordinates only. The coordinates represent the magnitude and the direction of each category in this two-dimensional space.

It would be useful to introduce briefly the matrix structure of the MCA. Usually, implementation of MCA by statistical packages gives the Burt matrix results. At the algorithmic background, MCA matrix can be constructed in two different ways. In the indicator matrix approach, dataset is coded as dummy variables. In the Burt matrix approach, “a square symmetric categories-by-categories matrix is formed from all two-way contingency tables pair of variables” (Greenacre, 2007, p. 141).

When indicator matrix is denoted Z; Burt matrix is denoted;

$$B = Z^T Z \quad (3)$$

In fact, there is no significant difference between indicator and Burt approaches, but Burt matrix is computationally an easier method. So, MCA implementation is usually based on the Burt matrix approach by the statistical package.

In the thesis, dimensions and coordinate values which give the position of categorical variables are important. At the following sections, concepts of analysis will be discussed in detail as related to implementations.

3.3.2. Implementation Step 1: Constructing Aggregate Scores

As stated in “The Method” section, gathering knowledge of economic realities of people is not easy. If the information will be based on expenditure and debts, accessing precise quantitative information becomes more difficult. Directly asking to individuals the amount of their spending or borrowing will make it difficult to determine what kind of expenditures or payments are primary for them and how satisfactory living conditions they have. Structure of variables in “Income and Living Condition Survey” alleviates this problem. Thus, economic conditions can be evaluated through the “capabilities” on payments, expenditures, livelihood conditions. Household dataset of the survey contains information on defaulting on payment in different type of debts, possibility of covering expenditures in different categories, livelihood conditions, and basic information about living conditions as ordinal categorical variables. In this regard, 13 ordinal categorical variables from extensive dataset were selected to represent the economic realities of individuals in a more realistic way. Appx 1 shows the selected 13 variables and their 42 categories which constitute components of the economic and living conditions in the analysis.

How should all these variables be analyzed? The fundamental purpose of the analysis in two stages is revealing the composed landscapes of the indicators which can constitute class structure (individual's features) in the face of the economic conditions. Separately aggregating each feature with each variable shown in Table 3.2, is not possible. Therefore, a method to aggregate 13 variables which indicate economic conditions is needed in the first step. In this point, another question becomes important: Is the contribution of each variable to the general conditions of individual, equal? In the first step of the analysis, this question will be answered by MCA.

Firstly, each variable is given a code to make easy MCA implementation. Thus, MCA is implemented via “mca H_1 D_1 D_2 D_3 B_1 B_2 E_1 E_2 E_3 E_4 E_5 E_6 LH” command in STATA. The obtained output is shown at the Computational Appendix.

Table 3.3 shows number of axes which are obtained by MCA, the principal inertia values for obtained 2 axes, and total inertia value of this MCA implementation. MCA can give several dimensions, principle inertia values in other words, but usually two dimensions are sufficient for explanatory value of analysis. When the number of dimensions increase, the principal inertia values decrease in accordance with reduction dimensionality condition of MCA.

According to Table 3.2, total inertia is obtained as 0.11791998. Number of axes is obtained as 2, as expected. According to the results, first dimension has 67.43% and second dimension has 8.34% explanatory value of the total values. So, this MCA implementation has 75,77% explanatory value in the two axes. Because the analysis determined the number of axes as 2, this explanatory value is sufficient.

Table 3.2: Principle Inertias and Total Inertia Values for Dimension 1 and Dimension 2 of Multiple Correspondence Analysis

Number Of Observations	Number Of Axes (dimension 1 and dimension 2)	Principle Inertia Value for Dimension 1	Principle Inertia Value for Dimension 2	Cumulative Percent for Dimension 1	Cumulative Percent for Dimension 2	Total Inertia
8,633	2	.0795138	.0098395	67.43	8.34	.11791998

Source: “Income and Living Conditions Survey 2016” by TurkStat.

MCA outputs also give “statistics for column categories in standard normalization”. Column categories mean ordinal response of each 13 variable. Entire output of this MCA implementation can be seen in “Computational Appendix” section. Output involves standard coordinates, squared correlations and contribution values for each categorical variable in the level of dimension 1 and dimension 2. Squared correlation, in 0-1 range, presents the contribution of the dimension to the inertia of the column. If squared correlation value is close to 1, contribution of dimension to the total inertia is high. Contribution value relates explanation value on dimensions (dimension 1 and dimension 2 in this analysis). For example, if a point (categorical variable) is, farther away from origin of dimension 1, this categorical variable is more influential at the explanatory value on dimension 1.

Standard coordinate values will be the focus of the method in this section. Coordinates show the position of categorical variables on the dimension 1 and dimension 2. The relationship between categorical variables are measured by coordinates. So, if the direction of the relationship is opposite between two categories, coordinate values of them must be inverse. In this regard, because standard coordinates represent the relationship between categories, to obtain weights from their values was decided.

There is a point worth attention here. MCA shows coordinate values of each category for dimension 1 and dimension 2 separately. Because dimension 1 and dimension 2 have not equal explanatory values, coordinate values were not used as weights directly. Instead, each coordinate value of category was multiplied by the associated principle inertia of the related dimension. Lastly, obtained new coordinate values were added and weights to constitute overall aggregate scores are calculated.

Consequently, the calculation method for constituting aggregate scores is formulated as follows:

$$\theta_1\lambda_1 + \theta_2\lambda_2 \quad (4)$$

when θ is coordinate values for dimension 1 or dimension 2 and λ is percentage of variance explained for dimension 1 or dimension 2

Table 3.3 shows coordinate values which were multiplied by the associated principle inertia value for dimension 1 and dimension 2, and total weights obtained through these two dimensions. Thus, categorical weights were determined to measure the total impact of each categorical variable (response).

Table 3.3: Aggregate Scores for Each Categorical Variable

Variables	Categories	Coordinates Dimension 1 (67,43%)	Coordinates Dimension 2 (8,34%)	Total Categorical Weights
<i>Possession of house (H_1)</i>	1. Householder 2. Tenant 3. Lodgment 4. Other (different than tenant)	0,118 -0,148 0,692 -0,312	0,059 -0,180 -0,093 -0,099	0,177 -0,329 0,599 -0,213
<i>Defaulting on house rent, debt repayment and mortgage (D_1)</i>	1. Yes, once 2. Yes, more than once 3. No 4. No payment	-0,894 -1,514 0,396 -0,020	-0,193 -0,178 -0,153 0,098	-1,087 -1,692 0,243 0,078
<i>Defaulting on electricity, gas and water bills (D_2)</i>	1. Yes, once 2. Yes, more than once 3. No 4. No payment	-0,786 -1,230 0,340 -0,064	-0,041 -0,027 0,006 0,260	-0,827 -1,257 0,346 0,324
<i>Defaulting on installment, credit card and other debts (D_3)</i>	1. Yes, once 2. Yes, more than once 3. No 4. No payment	-0,765 -1,233 0,378 0,048	-0,128 -0,106 -0,102 0,265	-0,893 -1,399 0,276 0,313

Variables	Categories	Coordinates Dimension 1 (67,43%)	Coordinates Dimension 2 (8,34%)	Total Categorical Weights
<i>Burden of all house expenditures on the household (B_1)</i>	1. Yes, too much 2. Yes, a little 3. No	-1,241 -0,120 0,834	-0,042 -0,030 0,084	-1,283 -0,15 0,918
<i>Burden of other debts payments different than house expenditures (B_2)</i>	1. Yes, too much 2. Yes, a little 3. No 4. No payment	-0,824 0,137 1,262 -0,023	-0,122 -0,111 -0,036 0,260	-0,946 0,026 1,226 0,283
<i>Possibility of affording one-week vacation (E_1)</i>	1. Yes 2. No	0,999 -0,728	-0,003 -0,002	0,996 -0,727
<i>Possibility of eat three meals with meat, chicken or fish (weekly) (E_2)</i>	1. Yes 2. No	0,534 -1,282	-0,013 0,031	0,521 -1,251
<i>Possibility of affording unexpected expenditures (E_3)</i>	1. Yes 2. No	0,491 -1,282	-0,008 0,031	0,483 -1,317
<i>Possibility of affording sufficient heating of house (E_4)</i>	1. Yes 2. No	0,313 -1,550	-0,135 0,066	0,178 -1,483

Variables	Categories	Coordinates Dimension 1 (67,43%)	Coordinates Dimension 2 (8,34%)	Total Categorical Weights
<i>Possibility of renewing old furniture (E_5)</i>	1. Yes 2. No, financial incapability 3. No, other reason	0,902 -1,006 0,222	-0,006 -0,007 -0,002	0,896 -0,999 0,22
<i>Possibility of buying new clothes(E_6)</i>	1. Yes 2. No, financial incapability 3. No, other reasons	0,201 -1,802 -0,679	-0,009 0,082 0,062	0,192 -1,72 -0,616
<i>Possibility of lasting for one month with monthly household income (LH)</i>	1. Very difficult 2. Difficult 3. A little difficult 4. A little easy 5. Easy 6. Very easy	-1,713 -1 -0,052 0,670 1,029 1,365	-0,029 -0,004 -0,298 0,022 0,037 0,060	-1,742 -1,004 -0,35 0,692 1,066 1,425

Source: “Income and Living Conditions Survey 2016” by TurkStat

Let us consider an example to clarify the calculation of these categorical weights for respondents. In the data set, first respondent is called **#881**. Total aggregate score of respondent #881 can be calculated according to his/her answers via obtained total weights of each categorical variables. This respondent gives the following answers for 13 questions (variables):

Table 3.4: Calculating Total Aggregate Score for Respondent #881

Variables (questions)	Responses of Respondent #881	Categorical Weights of Responses
Possession of house	1	0, 177
Defaulting on house rent, debt repayment and mortgage	4	0,078
Defaulting on electricity, gas and water bills	3	0,346
Defaulting on installment, credit card and other debts	3	0,276
Burden of all house expenditures on the household	3	0,918
Burden of other debts payments different than house expenditures	1	1,226
Possibility of affording one-week vacation	1	0,996
Possibility of eat three meals with meat, chicken or fish (weekly)	1	0,521
Possibility of affording unexpected expenditures	1	0,483
Possibility of affording sufficient heating of house	1	0,178
Possibility of renewing old furniture	1	0,896

Variables (questions)	Responses of Respondent #881	Categorical Weights of Responses
Possibility of buying new clothes	1	0,192
Possibility of lasting for one month with monthly household income	4	0,692
TOTAL AGGREGATE SCORE OF RESPONDENT #881		6,919

Source: “Income and Living Conditions Survey 2016” by TurkStat.

In this example, the aggregate score of respondent #881 is 6,919. This procedure was implemented for 8,633 respondents in Excel. Histogram of obtained aggregate scores for 8,633 respondents is shows in Figure 3.1.

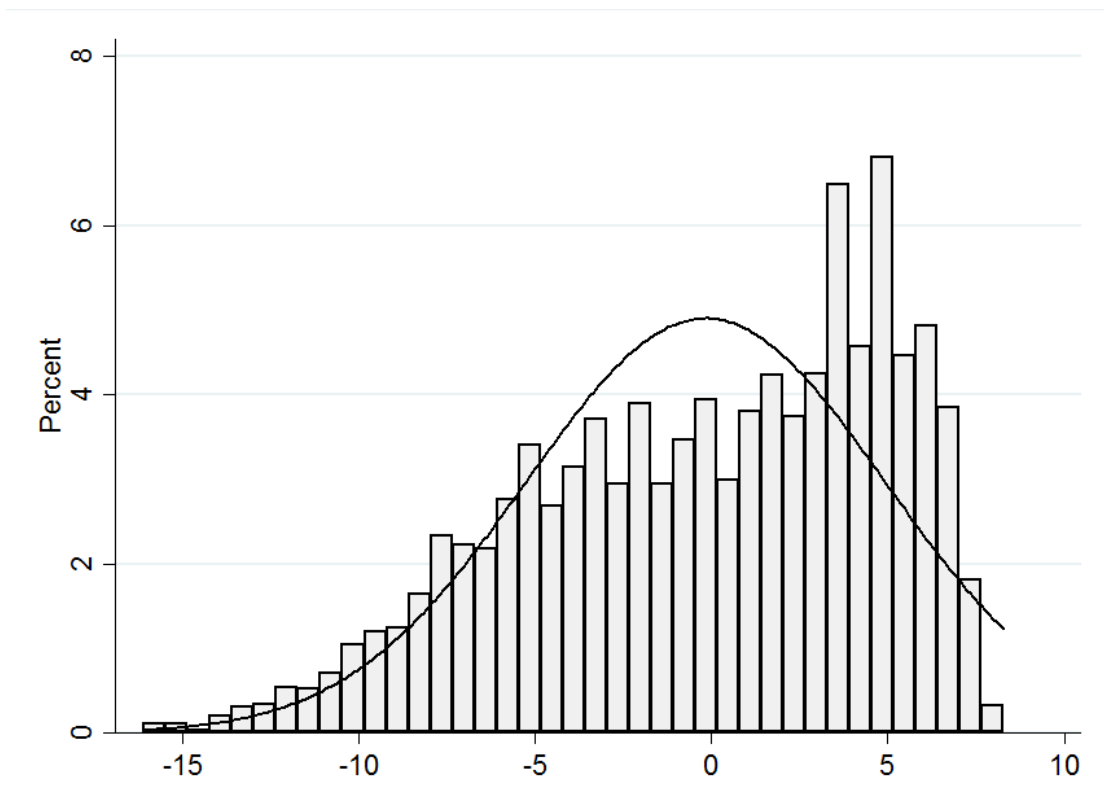


Figure 3.1: Histogram for Overall Aggregate Scores (2016)

Source: “Income and Living Conditions Survey 2016” by TurkStat.

By this weighting method, simplifying the multidimensionality on economic and living conditions and making it ready to constitute aggregate scores has been possible. To visualize the relationship between aggregate scores and selected different features of individuals, simple two-way version of MCA, Correspondence Analysis (CA) will be the best method. However, to implement CA, aggregate scores needs to be converted into categorical variables. So, aggregate scores grouped based on quintiles (segments of 20%). Table 3.5 shows the range of categorical groups for aggregate scores.

Table 3.5: Lower and Upper Limits of Aggregate Scores Categories

Aggregate Scores Categories	1	2	3	4	5
Limits of Categories	lower upper -16.085 -4.9821	lower upper -4.9820 -1.8151	lower upper -1.8150 2.241	lower upper 2.242 4.7131	lower upper 4.7132 8.299

Source: “Income and Living Conditions Survey 2016” by TurkStat.

At the end of the first stage of the analysis, individuals obtained an aggregate score which represents their economic and living conditions, and these scores were converted into the categorical variables to be appropriate for second stage of the analysis. In the second stage, position of the selected features such as occupational status, their status in production relations, education, income in the face of economic conditions will be shown.

3.3.3. Implementation of Step 2: Visualizing Relationship Between Aggregate Scores and Features of Individuals

In the first step of analysis, the question of how to the economic and living conditions such as indebtedness, expenditures, livelihood satisfaction are involved in the class discussion was answered. Thus, multidimensionality of these variables was simplified via MCA, and an aggregate score, representing multiple variables, has been obtained for each person. However, as stated in the theoretical debates, singly economic conditions are not

able to constitute class hierarchies. On the other hand, finding a consensus about what constitute class structures is not possible. This study aims to approach the indicators that can be of use in a multidimensional and objective perspective to the extent possible, rather than revealing an absolute class schema. In other words, the study aims to render a recent landscape of classes in Turkey.

Reducing economic and living conditions in a single dimension makes it possible to bring together these conditions and each of these features separately. Thus, constituting landscapes in the two-dimensional visual will be possible. For this purpose, CA is the best visual method to obtain more straightforward landscapes. In the second step of the analysis, each selected feature is brought together with aggregate scores in separate graphics and results will be interpreted in the context of theoretical discussion.

Because CA is the simple two-way version of MCA, they have largely common theoretical notation. Basis of the analysis was discussed briefly in section 3.3.1. The constituted categorical variables of grouped aggregate scores, in Table 3.5, will be one dimension of CA graphics. Selected 5 features, in Table 3.7, will be the other dimension of the CA graphics. So, each feature will be combined with aggregate score in the separate CA biplot graphic.

There is a point to draw attention: As in the case for aggregate scores, income indicators need to be transformed into the categorical variables to obtain a CA biplot. Histogram for ungrouped overall disposable household income is shown in Figure 3.2. Initially, the sample is grouped by income levels based on quintiles (segments of 20%). However, it is observed that an overwhelming majority is found out to fall into the lowest quintile. In order to preserve a greater portion of the variation in income levels, the lowest quintile is separated into four subgroups while the second lowest quintile is separated into two. Higher quintiles were used directly, ending up with nine income groups over the entire sample. But another problem arose in that grouping. In the CA biplot for income and aggregate scores, income group 1-2 and 4-5 were very close to each other. This indicated that there were redundant groups in categorical indicator. Consequently group 1-2 and 4-5 were combined. Obtained income groups are shown in Appx 2.

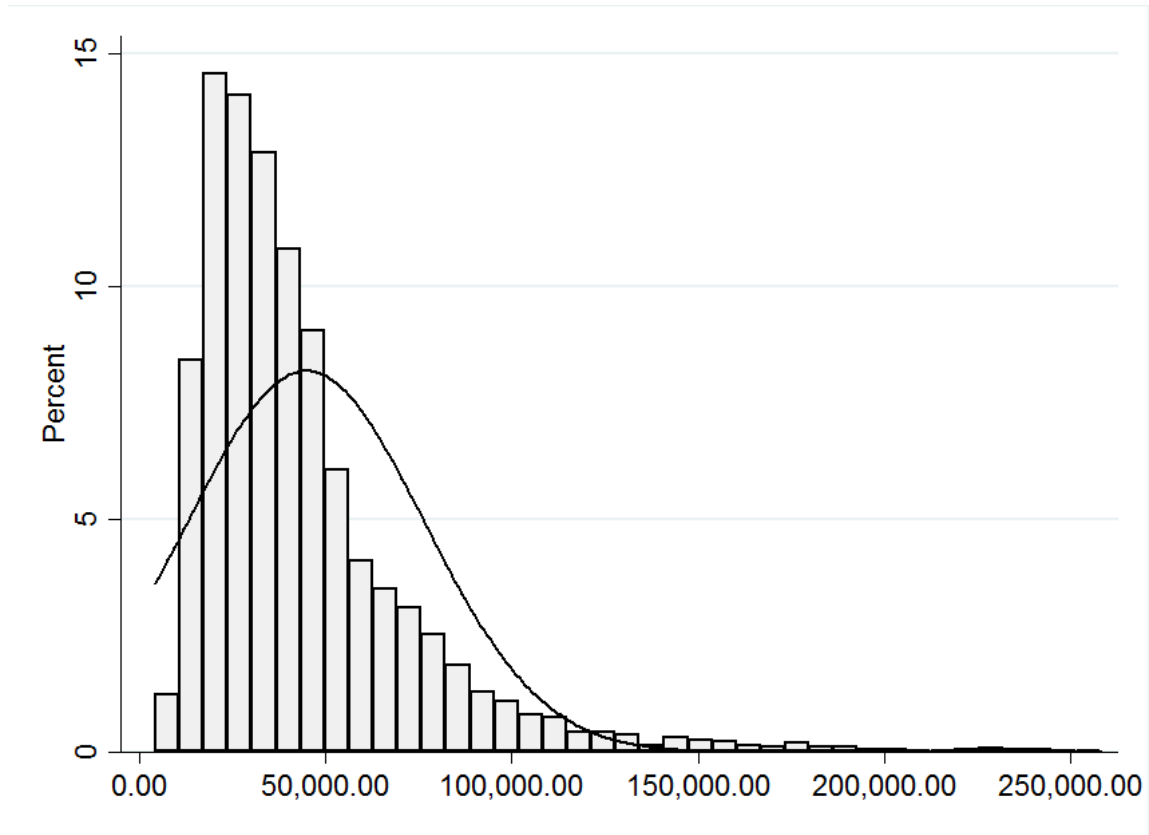


Figure 3.2: Histogram for Overall Disposable Household Income (2016)

Source: “Income and Living Conditions Survey 2016” by TurkStat.

CA is implemented via “ca OccupationalStatus AggregateScoreGrouped”, “ca Work_status AggregateScoreGrouped”, “ca Work_status_2 AggregateScoreGrouped” “ca Education AggregateScoreGrouped”, “ca Income AggregateScoreGropued” and “cabiplot, origin” commands in STATA. The obtained outputs for each feature is shown at the Computational Appendix. Here, only CA graphics will be given and interpreted.

Since CA is two-way version of MCA, it involves row and column discrimination unlike MCA. In these implementations, presenting the distribution of different features in the face of the economic and living conditions is aimed. So, aggregate scores will always

constitute column categories. Consequently, features of individuals such as occupational status, status at production relation, education, income will constitute row categories in the separate CA biplots.

Before starting to discuss results, some key points to interpret CA biplots will be briefly introduced. There are several kinds of graphical methods for demonstration of analytical results. Normalization method is the graphical method to determine the similarity of row categories, the similarity of column categories, and the association between row and column categories. CA biplots can be drawn according to several different types of normalization methods such as symmetric, asymmetric, principal normalization etc. Interpretation of graphical results might change according to normalization method of the implementation. In this implementation, the most frequent method, the symmetric normalization, is chosen because it is the default method in STATA. So, key points for interpreting symmetric CA biplots are listed below:

- Far points (categorical variables) from the origin has the best explanatory value in the related dimensions. It means that dependence between row and column categorical variables is strong.
- The points located close to center of plots, has the low explanatory power in the total composite. They are “indistinct”.
- In the symmetric normalization, the distance between row and column categories is meaningless. Only general statements can be made according to how row and column categories cluster. This is enough to visualize the relationship between aggregate scores based on economic conditions and different features.
- The points which clustered in the similar aspects indicate a positive relationship, vice versa. Thus, how categorical features are clustered with aggregate scores can be clearly shown.
- The coordinate values determine the location of the points. The positions of the points on dimension 1 and dimension 2 are visualized by the coordinate values.

In this section, Figure 3.3, 3.4, 3.5, 3.6 and 3.7 show CA biplots for the relationship between each feature and aggregate scores.

Like MCA, CA outputs give “total inertia value” for each biplot. As stated in section 3.3.1, total inertia refers to variance between categorical variables. If CA implementation has high total inertia values, points (categorical variables) get further away from the origin (center). In this case, there is a strong association between row and column profiles. For this reason, total inertia values for each biplot are also interpreted. On the other hand, explanation inertia indicates total explanation values for dimension 1 and dimension 2 in a CA biplot visual. It did not obtain below 90% in any CA implementations. All the values will be examined in CA outputs at the Appendix.

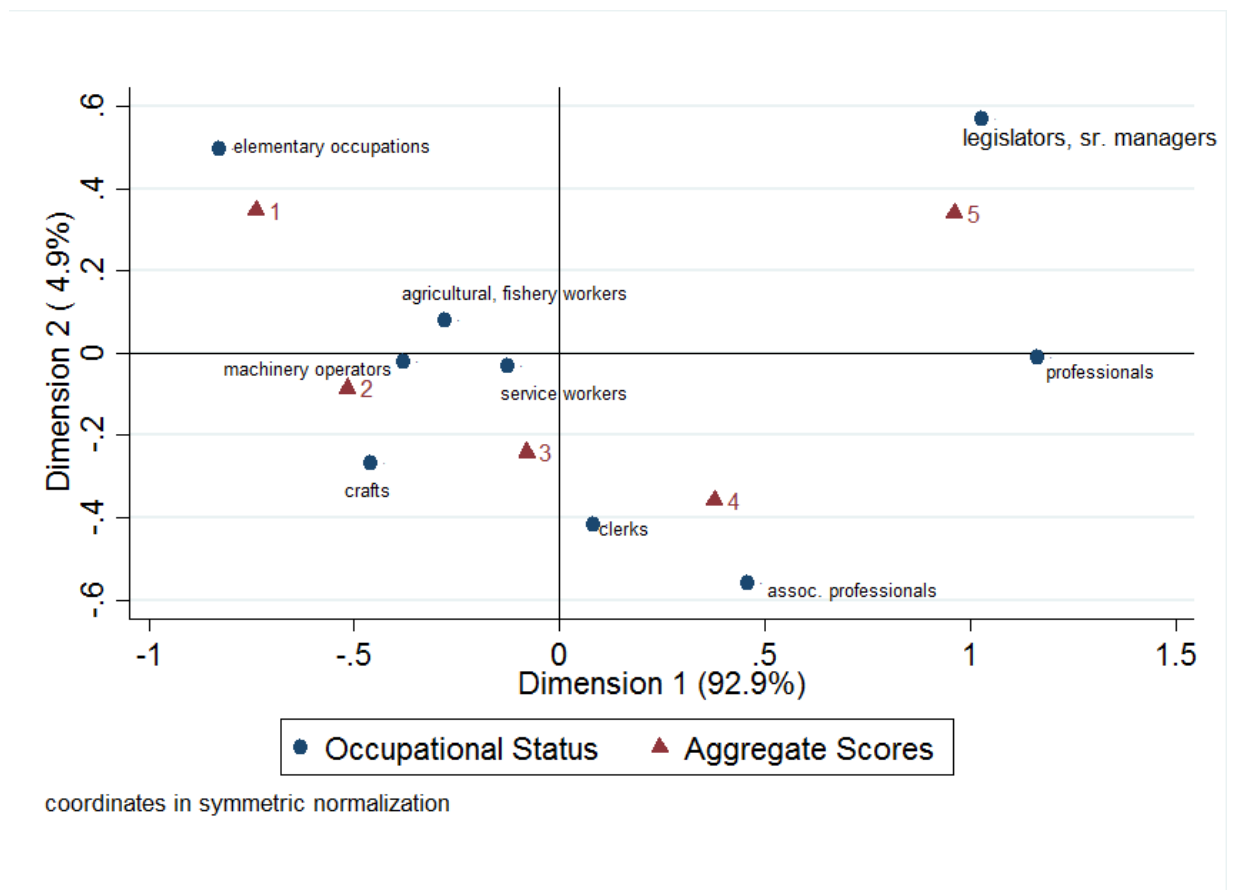


Figure 3.3: Correspondence Analysis for Occupation Status and Aggregate Scores

Source: “Income and Living Conditions Survey 2016” by TurkStat

Figure 3.3 shows the relationship between occupational status (row) and aggregate scores (column) scatter in a single CA visual with 97,8% of the explanation inertia. Occupational status has the highest total inertia values with 0.1525. So, association between row and column profiles is higher than others. While the senior professional, legislator occupations and professionals cluster with the highest aggregate scores, elementary occupations cluster with the lowest aggregate score. However, the location on the axis needs attention since association of the second occupational group with the highest aggregate score is weaker than association of first occupational group and the highest aggregate score. It can be argued that reason for this is the ISCO-08 classification. For example, professional group involves both medical doctor and secondary education teacher, although these two occupations have significantly different economic conditions. Moreover, senior professionals and legislators, associate professionals, technicians and clerk groups have positive relationship clustering with first two highest aggregate score groups in the positive side of the graph. Other working groups cluster on the negative side. Service, shop and the market sales workers constitute the closest group to the origin. So, they are the most indistinct group in this association. As a result, there is no contradiction in the argument that high occupational status corresponds to high economic and living conditions. However, the purpose of obtaining this biplot is to show which groups cluster in the same or different areas.

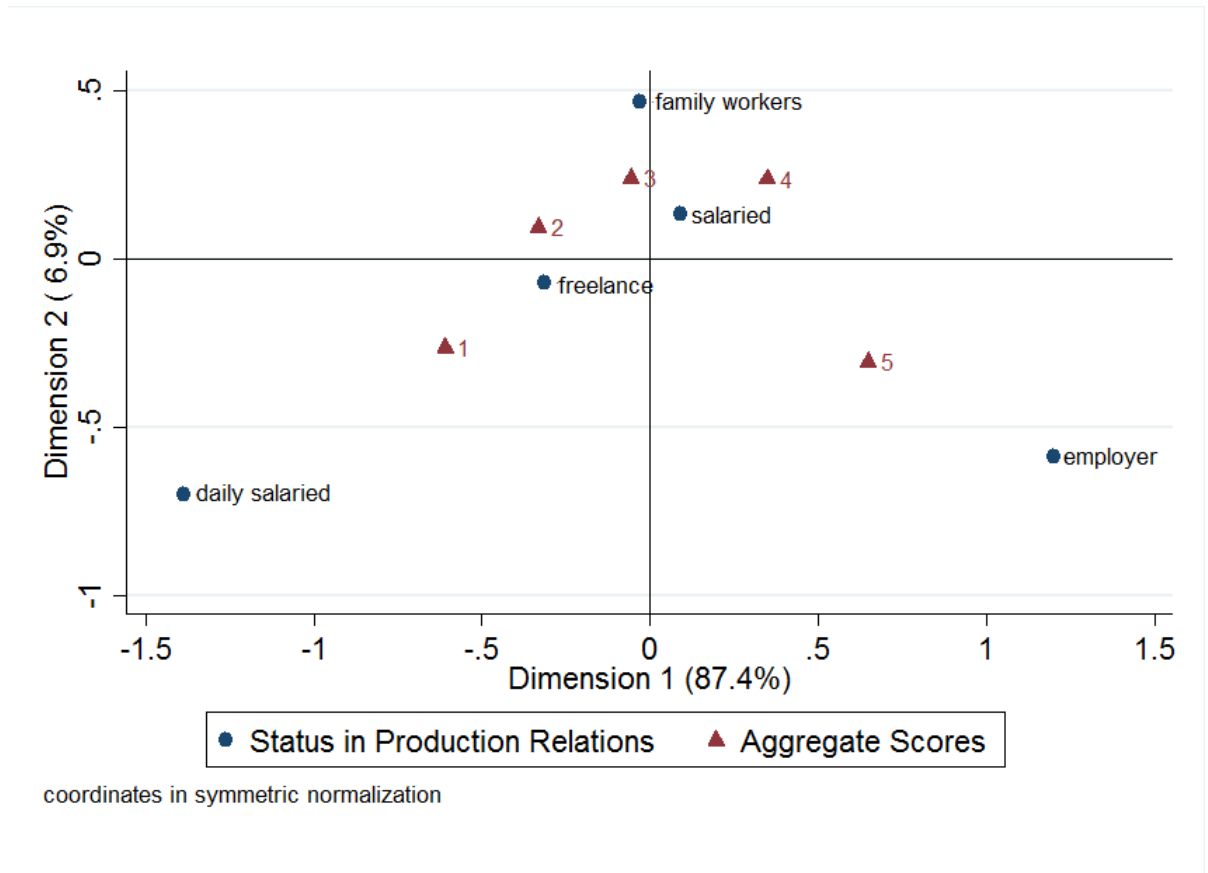


Figure 3.4: Correspondence Analysis for Status in Production Relations and Aggregate Scores

Source: “Income and Living Conditions Survey 2016” by TurkStat.

Beside the occupational status, the status of individuals in production relations was also examined. Status at production relations largely imply being an employer or an employee. Although status in production relation is a very important issue in the Marxist perspective, Neo-Marxist class debates draw attention to contradictory locations between being employer or workers. On the other hand, the accuracy of the classification is controversial. For example, employer can be owning a large-scale firm or running a small shop. Likewise, a salaried professional might have share from the profits. In fact, status of relations of production cannot be deeply analyzed via a classified variable. So, to show only the general landscape is aimed with this variable in the analysis.

According to results, status at work has the lowest total inertia with 0.0481. It indicates a poor relationship between row and column profiles. Furthermore, both employer and

salaried categories cluster with the high level of aggregate scores on the positive side of graph. On the other side, freelance and daily salaried categories cluster with the poorest aggregate scores, but according to position on the axis, daily salaried group has the strongest relationship with the lowest conditions. In the Neo-Marxist discussions, existence of contradictory locations between capitalist and wage-earner stratifications was discussed. Also, they remarked that the meaning of having capital needs re-thinking in accordance with contemporary dynamics. In this graphic, position in the relations of production is reduced in a single variable. So, obtained distribution does not allow for an in-depth analysis on relations of production dynamics as it can be seen in the theoretical discussion. But, how does it make a difference to be owner or wage-earner or freelance in the face of economic conditions can be seen. According to result, there is a poor association between status at production (row) and aggregate scores (column) indicators in a general framework. Although only employers correspond the highest economic and living conditions, employers and salaried groups have positive association on the positive side of graph. Consequently, being owner or non-owner has a weak effect on the living and economic conditions of individuals.

Interestingly, employers have more opportunity for expenditures, also cover their debts regularly. The aggregate score of salaried individuals, are below the employer group. So, such an argument that a certain monthly salary would lead to regular payments and expenditures balances does not seem strong. In this point, a different question arose: Does considering the firm's scale create a different landscape? In the next CA implementation, the answer to this question is sought.

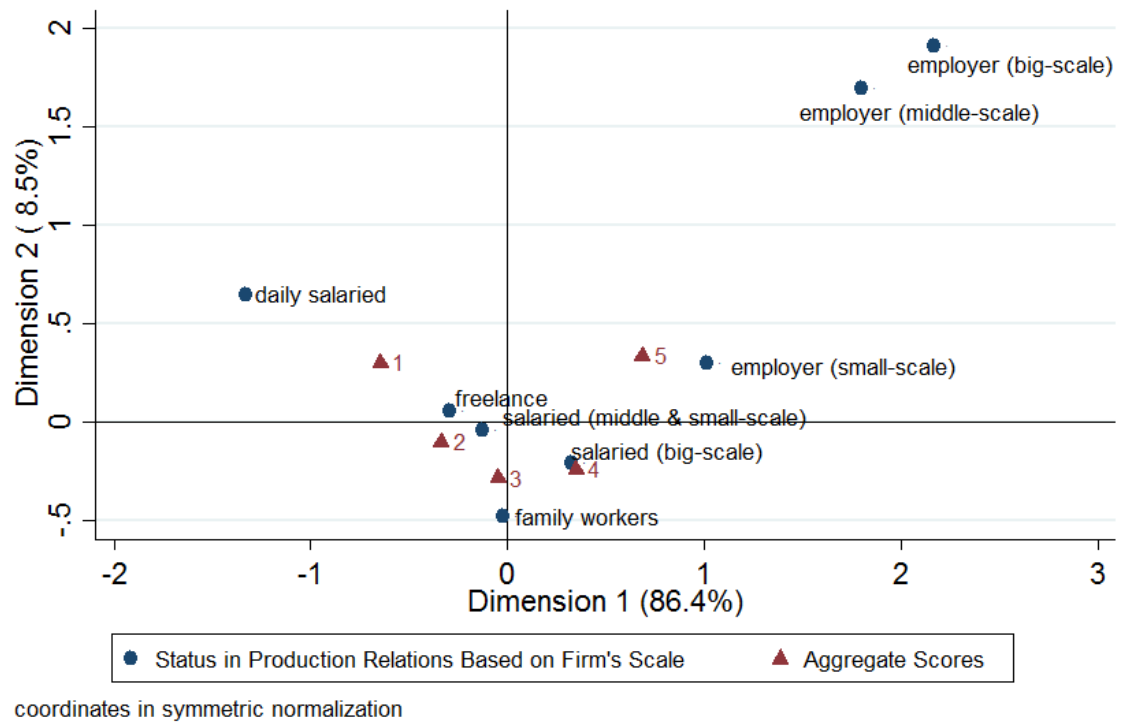


Figure 3.5: Correspondence Analysis for Status at Production Relations Based on Firm's Scale and Aggregate Scores

Source: "Income and Living Conditions Survey 2016" by TurkStat.

To obtain Figure 3.5, employer and salaried group is divided into different categories according to firm's scale. While employer group is divided as big-scale, middle-scale and small-scale firms; salaried group is divided as only big-scale and middle and small-scale firms. The scales were determined based on the data set:

- Small scale if number of employees is less than 10
- Middle scale if number of employees between 10-49
- Big scale if number of employees is 50 and more

In this regard, status at production relations indicator was re-arranged and eight categories (Table 3.6) were constituted. According to CA results, status at production relations based on firm's scale and aggregate scores relationship has poor association between column

and row profiles as well as primary version. Total inertia value was obtained as 0,0584. Employers still cluster with the highest living and economic conditions. Especially big and middle scale firm owner has the strongest association with highest condition. On the other hand, daily salaried group has the strongest relationship with the lowest conditions.

Unlike the employers, in salaried group, firm scaling revealed an interesting landscape. Based on the firm scale, big scale firm salaried and middle and small-scale firm salaried have the negative relationship. While wage earners in the big-scale firm clusters with the fourth aggregate score group, salaried who work in the small and middle-scale firms cluster with the poor conditions. Consequently, although status at production relations indicator based on firm's scale has a weak effect on the living and economic conditions in general, it can be concluded that scale of firm has significant effect on the salaried group.

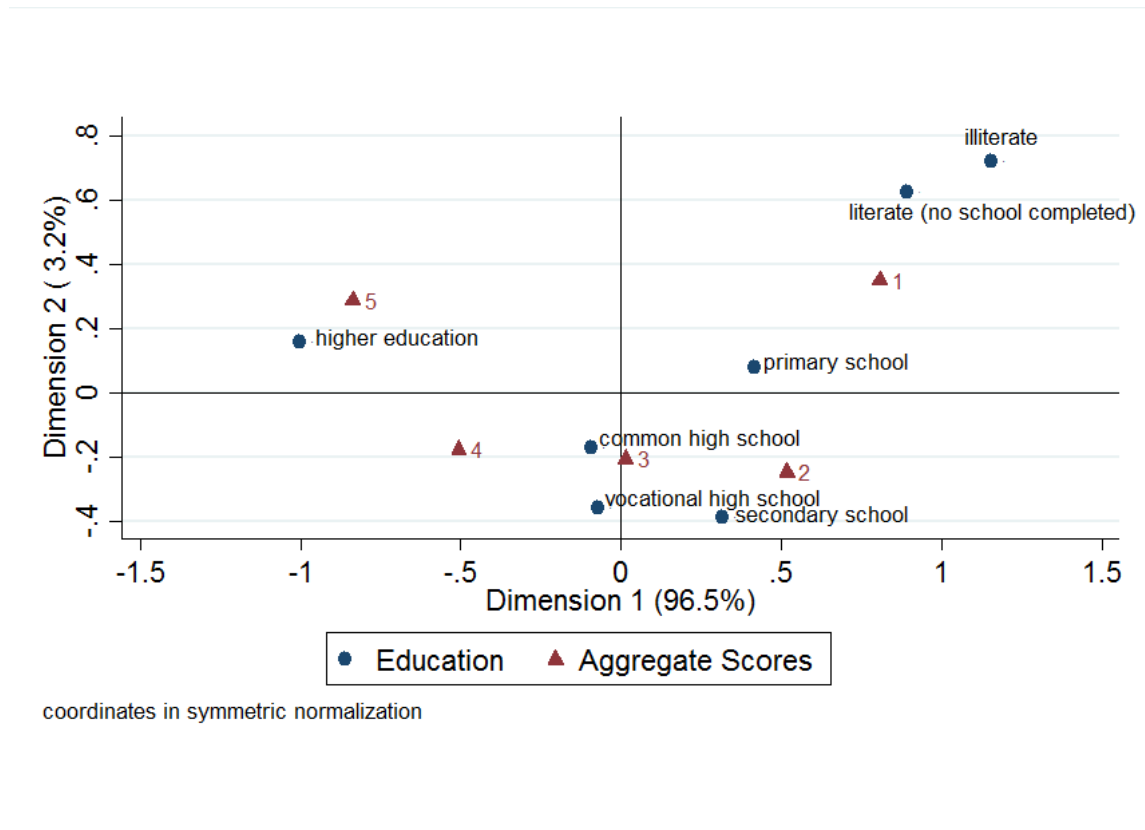


Figure 3.6: Correspondence Analysis for Education and Aggregate Scores

Source: “Income and Living Conditions Survey 2016” by TurkStat.

Most important problem on categorical classification in the dataset is in education indicator. In education categories, higher education is only one category. So, this category involves both association degree (vocational school) and Ph.D. graduate people but expecting all people which are involved by this extensive category have similar living patterns is difficult. According to results, high education and the highest level of aggregate score have a strong relationship, but such a classification hinders detailed conclusions on higher education.

According to results of education and aggregate scores association, total inertia values in the second highest rank with 0.1452. Higher education corresponds the best economic and living conditions. Similarly, lack of education and low level of education cause poor conditions with strong validity. In fact, the relationship observed here is similar to obtained landscape in occupational status. So, the highest and the lowest conditions have absolute association with college educated and unschooled people. On the other hand, secondary and high school education have more indistinct position in the distribution.

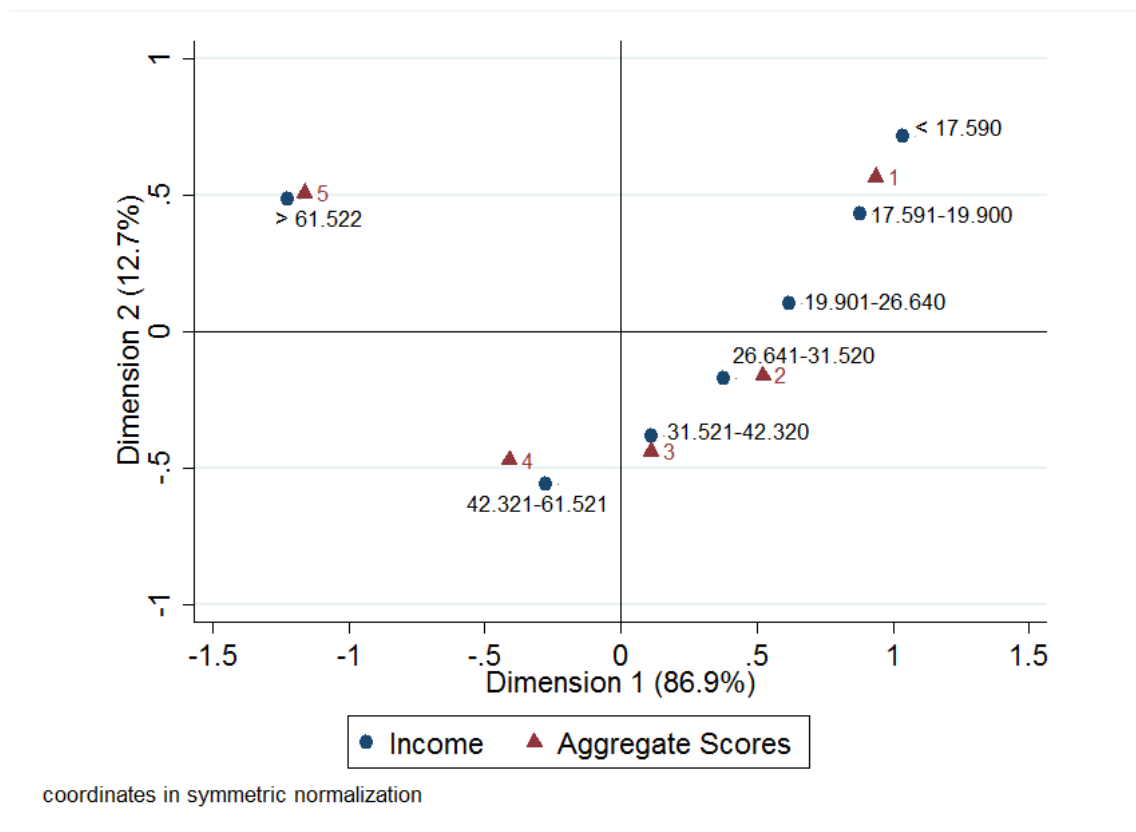


Figure 3.7: Correspondence Analysis for Grouped Overall Disposable Household Income and Aggregate Scores

Source: “Income and Living Conditions Survey 2016” by TurkStat.

Lastly, Figure 3.7 presents grouped overall disposable household income and aggregate scores distributions. In fact, the idea of combining aggregate score based on mainly economic indicators, and income indicators in a graphical visual might seem like a bit complicated. However, economic conditions are represented by several categorical variables than direct quantitative information on the total amount of debts, expenditures, savings etc. In other words, while the capability of covering burden of debts is a part of the column category, overall disposable household income is in the row category. Thus, to bring together aggregate score which involves all these different categorical indicators and income variable will lead to see explanatory power of income on general living and economic conditions.

Undoubtedly, income is the most controversial variable in social class studies. In this CA implementation, total inertia was obtained as 0.3304. This value shows slightly weak column-row association compared to the occupational status and education. On the other hand, distribution of income groups and aggregate scores present the most consistent landscape than all other features. The top of the income group has a significant association with the highest conditions. Other income groups present a fairly sequential clustering with aggregate scores.

At the end of the empirical analysis of the thesis, landscapes of the features, widely discussed in the class literature, in the face of scores based on economic and living conditions were interpreted. Consequently, while occupational status and education have strong association with scores, status in the production relations indicates a poor association. To consider status in production relation based on firm's scale does not change this poor association in general. On the other hand, income has a less weak association beside occupational status and education in the face of economic and living conditions.

4. CONCLUSION

As it was asserted at the beginning of the study, to discuss classes is complex and multifaced. An absolute answer to question of what constitute social classes is not possible. Therefore, to discuss classes should begin by asking a question on class. In the theoretical debates, many different perspectives were discussed: Studies which focus on reconstructing concepts such as exploitation, authority, domination based on the current social mechanism; support new class positions or measure similar behaviors and attitudes of stratification. In fact, the reason why an extensive literature section contained is to shape the thoughts on the classes and constitute a map on how one should approach to classes. In accordance with this purpose, a literature schema was presented at the end of theoretical section.

This thesis did not focalize on subjects such as relations of production, employment relations, authority and dominance in employment relations or other mechanisms. In this respect, it is much closer to approaches which focus on identifying common lifestyle patterns, economic resources and preferences. However, these interests need to be further specified. If discussing classes requires a certain question, the following question should be asked at the beginning: What will this thesis put in the center of the class discussion? This question was answered by the economic and living conditions. In this regard, to obtain variables based on indebtedness, basic living standards, expenditures, livelihood satisfaction etc. was aimed. But, to reach such economic realities of individuals is not easy.

In this thesis, “Household Income and Living Conditions Data” is used. This data set is constructed by the TurkStat, as a result of an extensive survey based on income distribution in Turkey, general living conditions, relative poverty and social exclusion. At first glance, to study with such a public data set might lead one to think that it does not

have a solid theoretical background in the analysis. However, the thesis aimed to analyze the landscapes of the relationship between socioeconomic characteristics which constitute class locations and economic and living conditions instead of constituting class schema or identifying the class hierarchies. To reach quantitative information on how much individuals borrow, their capability to cover their debt, what kind of expenditures they give priority is not easy. This survey presents the information on these questions as categorical variables. Thus, to obtain an objective set of information on the major discussion of the analysis was possible.

How all this information will be analyzed? Is it possible to reduce multidimensionality? First step of the analysis focused on this question. In this regard, constituting an aggregate score which indicates economic and living conditions for each respondent was aimed. Construction of the aggregate score was based on the assumption that each categorical variable would have a different contribution to the whole. In this way, the coordinate values given by MCA for each category (each response of question) were used, thus each category is assigned a weight. Consequently, individuals got an aggregate score according to their answers to questions. Thus, multidimensional economic and living condition issue was simplified.

Burden of indebtedness, possibility of different kind of expenditures, livelihood satisfaction and basic living standards provide the basis of the discussion on classes. What is the meaning of class here? Do these indicators constitute absolute hierarchical class stratifications? In fact, the thesis supports approaching classes in a different context than hierarchical stratification. Accordingly, instead of absolute class schema or hierarchy, unidimensional living and economic conditions were brought together with basic features which might possibly constitute class structures such as occupational status, status at production relations, level of education and income. This is what was done in the second step of the analysis with CA, two-way simple version of MCA. In other words, it will be possible to discuss different responses that can be given to the question of “what constitute the classes” in the basic perspective.

CA biplots in the second step of the implementation made it possible to make interpretations on different landscapes. In the all CA graphs, aggregate scores constituted column profiles, while five different features constituted row categories. According to results, occupational status and education have the most significant effect on the economic and living conditions. On the other hand, both variables are subject to international classifications. Because of classification, some categories involve larger groups as seen in the professional occupations and higher education examples. In the results, this categorization problem, widely discussed issue in the social studies, were observed by the distance of categorical variable to the axes.

On the other hand, the explanatory power of income is slightly weak compared to occupational status and education. However, distribution of income groups in the face of economic and living conditions reveal the more consistent landscape rather than any other feature.

In the status at production relations, a different landscape is observed. Firstly, being an employer or an employee has a weak effect on general conditions with the lowest total inertia value. Furthermore, salaried and employer groups have positive association against freelance, daily salaried, unpaid family worker groups. In order to detail this distribution, considering the scale of the firm for both salaried and employer groups was decided. In a different CA biplot, the distribution of eight status groups, based on firm scale, and the aggregate scores were brought together. According to results, status at production relation has still a weak effect on economic and living conditions. However, examining firm's scale for salaried and employer groups reveal an interesting outcome. Salaried respondents in big-scale firms cluster with higher living standards, while salaried respondents who work in small and middle-scale firms cluster with the poor conditions. In contrast to general landscape, scale of firm has a significant effect only on salaried group.

The underlying assumption is that class is mostly related to how people live, and it is obvious that economic conditions determine the way people live to a great extent. However, approaching economic conditions only in terms of income limits the perspective. Consequently, the thesis discussed classes at the center of economic condition based on mainly indebtedness, capability of covering expenditures, economic priorities

and basic living conditions. The question of what constitute classes does not have an absolute answer, but the different landscapes that can be built by the different indicators in the face of the economic and living condition were discussed. Then this measure of living conditions is used as a variable for other possible factors contributing to formation of classes in Turkey to test against. Consequently, factors such as occupational status and education have the highest explanatory power in the landscapes of classes.

REFERENCES

- Abdi, H., & Valentin, D. 2007. Multiple Correspondence Analysis. **Encyclopedia of Measurement and Statistics**, 651-657.
- Aktas, A. S. 2001. Sınıf Analizleri ve Sınıf Şemaları: Türkiye Örneğine Ampirik Yaklaşım. **Toplum ve Bilim**, 90, 210-242.
- Bahce, S., Gunaydin, F. Y., & Kose, A. H. 2011. Türkiye'de Toplumsal Sınıf Haritaları: Sınıf Oluşumları ve Sınıf Hareketliliği Üzerine Karşılaştırmalı Bir Çalışma. **Bilsay Kuruç'a Armağan**.
- Balikcioglu, E., & Dalgic, B. 2015. Türkiye'de Orta Gelirli Sınıfın Profili. **Ekonomi, İşletme, Siyaset ve Uluslararası İlişkiler Dergisi**, 17-31.
- Bergman, M. M., & Joye, D. 2005. Comparing Social Stratification Schemata: CAMSIS, CSP-CH, Goldthorpe, ISCO-88, Treiman, and Wright. (R. M. Blackburn, Ed.) Basel, Switzerland: SSRG Publications.
- Boratav, K. 1995. **İstanbul ve Anadolu'dan Sınıf Profilleri**. İstanbul: Tarih Vakfı Yurt Yayınları.
- Boratav, K. 2016. **1980'li Yıllarda Türkiye'de Sosyal Sınıflar ve Bölüşüm**. Ankara: İmge Kitabevi.
- Bourdieu, P. 1984. **Distinction: A Social Critique of the Judgement of Taste**. (R. Nice, Trans.) Cambridge, Massachusetts: Harvard University Press.
- Breen, R. 2005. Foundations of a neo-Weberian Class Analysis. In E. O. Wright, **Approaches to Class Analysis** (s. 31-50). Cambridge: Cambridge University Press.
- Breiger, R. L. 1981. The Social Class Structure of Occupational Mobility. **American Journal of Sociology**, 578-611.
- Elias, P., & McKnight, A. 2003 Earnings, Unemployment and the NS-SEC. A **Researcher's Guide to the National Statistics Socio-economic Classification**, 151-172.
- Erikson, R., & Goldthorpe, J. H. 1992. **The Constant Flux: A Study of Class Mobility in Industrial Society**. New York: Oxford University Press.
- Evans, G., & Mills, C. 1998. Identifying Class Structure: A Latent Class Analysis of the Criterion-Related and Construct Validity of the Goldthorpe Class Schema. **European Sociological Review**, Vol. 14, No. 1, 87-106.

- Giddens, A. 2006. **Socilogy**. Malden: Polity.
- Goldthorpe, J. H., & Llewellyn, C. 1974. Occupational and Social Mobility. **UK Data Service**. doi:10.5255/UKDA-SN-1358-1
- Goldthorpe, J. H., & McKnight, A. 1997. **The Economic Basis of Social Class**. London: Centre for Analysis of Social Exclusion London School of Economics.
- Greenacre, M. 2002. The Use of Correspondence Analysis in the Exploration of Health Survey Data. **Documentos de Trabajo(5)**, 05-41.
- Greenacre, M. 2007. **Correspondence Analysis in Practice (2. ed.)**. New York: Chapman & Hall / CRC.
- Kerbo, H. R. 1983. **Social Stratification and Inequality**. New York: McGraw-Hill.
- Keyder, C. 2013. [05.03.2018]. **New Middle Classes**. Retrieved from <https://bilimakademisi.org/yeni-orta-sinif-caglar-keyder/>
- Kosar, A. [02.03.2017]. **Poulantzas'ın Sınıf Analizinin Eleştirisi-2**. Retrieved from Teori ve Eylem Dergisi: <http://teoriveeylem.net/2017/02/poulantzasin-sinif-analizinin-elestirisi-2/>
- Marx, K. 1972. **The Eighteenth Brumaire of Louis Bonaparte (6. ed.)**. Moscow: Progress Publishers.
- Marx, K. 1995. **Capital Vol. III**. NY: International Publishers.
- Marx, K., & Engels, F. 1970. **Manifesto of the Communist Party (3 ed.)**. (S. Moore, Trans.) Peking: Foreign Languages Press.
- Office for National Statistic. [04.05.2018]. Retrieved from <https://www.ons.gov.uk/methodology/classificationsandstandards/otherclassifications/thenationalstatisticssocioeconomicclassificationnssecrebasedonsoc2010>
- Ozgoren, N. 2007, August. Uyum Analizinin Teorik Esasları ve Regresyon Analizi ile Benzerliğinin Grafiksel Boyutta Karşılaştırılması. **Dumlupınar Üniversitesi Sosyal Bilimler Dergisi (18)**.
- Pakulski, J. 2005. Foundations of the post-Class Analysis. In E. O. Wright, **Approaches to Class Analysis** (pp. 152-179). Cambridge: Cambridge University Press.
- Poulantzas, N. 1975. **Classes in the Contemporary Capitalism** . (D. Fernbach, Trans.) London : NLB.
- Roemer, J. E. 1982. **A General Theory of Exploitation and Class**. Cambridge: Harvard University Press.
- Sorensen, A. B. 2005. Foundations of a Rent-Based Class Analysis. In E. O. Wright, & E. O. Wright (Ed.), **Approaches the Class Analysis** (pp. 119-151). Cambridge University Press.
- Swingewood, A. 1984. **A Short History of Sociological Thought**. UK: Macmillan Education.

- Turkish Statistical Institute. [08.05.2018]. **Turkstat**. Retrieved from Turkish Statistical Institute Official Website: http://www.turkstat.gov.tr/PreTablo.do?alt_id=1011
- Uca, O. 2016. **Türkiye'de Orta Sınıfın Fotoğrafı: Akışlar ve İlişkiler**. İstanbul: Nota Bene.
- Unal, A. Z. 2017. Upper Class Domination Over Subclass Based on Lifestyle in the Context of Bourdieu's Stratification Theory. **The Journal of International Social Research** , 10(49), 380-388.
- Veblen, T. 2007. **Theory of Leisure Class**. Transaction Publishers.
- Weber, M. 1978. **Economy and Society: An Outline of Interpretive Sociology**. Berkeley, USA: University of California Press.
- Weininger, E. B. 2005. Foundations of Pierre Bourdieu's Class Analysis. In E. O. Wright, & E. O. Wright (Ed.), **Approaches to Class Analysis** (pp. 82-118). Cambridge University Press: Cambridge.
- Wright, E. O. 1985. **Classes**. London: Verso.
- Wright, E. O. 2005. Conclusion: If "Class" is the Answer, What is the Question? In E. O. Wright, **Approaches to Class Analysis** (pp. 180-192). Cambridge: Cambridge University Press.
- Wright, E. O. 2005. Foundations of a neo-Marxist Class Analysis. In E. O. Wright, **Approaches to Class Analysis** (pp. 4-30). Cambridge: Cambridge University Press.
- Wright, E. O., & Perrone, L. 1977. Marxist Class Categories and Income Inequality. **American Sociological Review** (42), 32-55.

APPENDIX

Appx 1: Selected Variables and Their Categories

Variables	Categories
Possession of house	1. Householder 2. Tenant 3. Lodgment 4. Other (different than tenant)
Defaulting on house rent, debt repayment and mortgage	1. Yes, once 2. Yes, more than once 3. No 4. No payment
Defaulting on electricity, gas and water bills	1. Yes, once 2. Yes, more than once 3. No 4. No payment
Burden of all house expenditures on the household	1. Yes, too much 2. Yes, a little 3. No

Variables	Categories
Possibility of affording unexpected expenditures	1. Yes 2. No
Possibility of affording sufficient heating of house	1. Yes 2. No
Possibility of buying new clothes	1. Yes 2. No, financial incapability 3. No, other reasons
Possibility of lasting for one month with monthly household income	1. Very difficult 2. Difficult 3. A little difficult 4. A little easy 5. Easy 6. Very easy

Appx 2: Selected Features and Their Categories

Features	Categories
Occupational Status (International Standard Classification of Occupation 2, 3 and 4 Digit (ISCO-08))	<ol style="list-style-type: none"> 1. Legislators, senior officials and managers 2. Professionals 3. Technicians and associate professionals 4. Clerks 5. Service, shop and market sales workers 6. Skilled agricultural and fishery workers 7. Craft and related trade workers 8. Plant and machinery operators and assemblers 9. Elementary occupations
Status in Production Relation	<ol style="list-style-type: none"> 1. Salaried 2. Daily Salaried 3. Employer 4. Freelance 5. Unpaid Family Worker
Status in Production Relation Based on Firm's Scale	<ol style="list-style-type: none"> 1. Employer (big-scale) 2. Employer (middle-scale) 3. Employer (small-scale) 4. Salaried (big-scale) 5. Salaried (middle and small-scale) 6. Freelance 7. Daily Salaried 8. Unpaid Family Worker
Education	<ol style="list-style-type: none"> 0. Illiterate 1. Literate, No School Completed 2. Primary Level of Education 3. Secondary Level of Education, Vocational Secondary School 4. Common High School 5. Vocational or Technical High School 6. Higher Education

Features	Categories
Income Groups	1. < 17.590 2. 17.591 – 19. 900 3. 19.901 – 26.640 4. 26.641 – 31. 520 5. 31.521 – 42.320 6. 42.321 – 61.521 7. > 61.522

Source: “Income and Living Conditions Survey 2016” by TurkStat.

Appx 3: Multiple Correspondence Analysis Output for Dimension 1 and Dimension 2

Multiple/Joint correspondence analysis Number of obs = 8,633
Total inertia = .11791998
Method: Burt/adjusted inertias Number of axes = 2

Dimension	principal inertia	percent	cumul percent
dim 1	.0795138	67.43	67.43
dim 2	.0098395	8.34	75.77
dim 3	.0036029	3.06	78.83
dim 4	.0032416	2.75	81.58
dim 5	.0018498	1.57	83.15
dim 6	.0010828	0.92	84.07
dim 7	.000272	0.23	84.30
dim 8	.0001949	0.17	84.46
dim 9	.000043	0.04	84.50
dim 10	2.13e-06	0.00	84.50
dim 11	1.55e-07	0.00	84.50
Total	.11792	100.00	

Statistics for column categories in standard normalization

Categories	overall				dimension_1			dimension_2		
	mass	quality	%inert		coord	sqcorr	contrib	coord	sqcorr	contrib
H_1	1	0.043	0.433	0.006	0.175	0.142	0.001	0.712	0.290	0.022
	2	0.020	0.334	0.025	-0.222	0.026	0.001	-2.178	0.308	0.093
	3	0.002	0.414	0.004	1.027	0.360	0.002	-1.130	0.054	0.003
	4	0.012	0.438	0.007	-0.463	0.240	0.003	1.197	0.199	0.017
D_1	1	0.001	0.270	0.008	-1.327	0.195	0.002	-2.331	0.075	0.007
	2	0.005	0.719	0.025	-2.247	0.645	0.024	-2.156	0.074	0.022
	3	0.023	0.526	0.023	0.588	0.237	0.008	-1.847	0.289	0.080
	4	0.048	0.382	0.015	-0.030	0.002	0.000	1.181	0.380	0.066
D_2	1	0.003	0.212	0.013	-1.166	0.207	0.004	-0.493	0.005	0.001
	2	0.014	0.798	0.041	-1.826	0.794	0.048	-0.327	0.003	0.002
	3	0.059	0.841	0.012	0.505	0.838	0.015	0.080	0.003	0.000
	4	0.000	0.157	0.002	0.095	0.001	0.000	3.133	0.155	0.005
D_3	1	0.002	0.214	0.012	-1.136	0.174	0.003	-1.546	0.040	0.006
	2	0.012	0.757	0.038	-1.830	0.714	0.040	-1.276	0.043	0.019
	3	0.041	0.615	0.023	0.561	0.386	0.013	-1.229	0.229	0.062
	4	0.022	0.469	0.040	0.072	0.002	0.000	3.200	0.467	0.222
B_1	1	0.010	0.796	0.029	-1.842	0.789	0.034	-0.504	0.007	0.003
	2	0.046	0.238	0.006	-0.178	0.157	0.001	-0.363	0.081	0.006
	3	0.021	0.793	0.030	1.238	0.733	0.033	1.009	0.060	0.022
B_2	1	0.016	0.760	0.024	-1.223	0.645	0.023	-1.469	0.115	0.034
	2	0.033	0.416	0.014	0.203	0.066	0.001	-1.336	0.350	0.059
	3	0.006	0.691	0.021	1.872	0.686	0.022	-0.441	0.005	0.001
	4	0.022	0.466	0.039	0.035	0.000	0.000	3.138	0.466	0.219
E_1	1	0.032	0.911	0.053	1.483	0.911	0.071	-0.035	0.000	0.000
	2	0.044	0.911	0.038	-1.081	0.911	0.052	0.026	0.000	0.000
E_2	1	0.054	0.901	0.026	0.792	0.897	0.034	-0.156	0.004	0.001
	2	0.023	0.901	0.062	-1.903	0.897	0.082	0.376	0.004	0.003
E_3	1	0.056	0.917	0.022	0.729	0.915	0.030	-0.107	0.002	0.001
	2	0.021	0.917	0.060	-1.990	0.915	0.082	0.291	0.002	0.002
E_4	1	0.064	0.939	0.010	0.465	0.925	0.014	-0.163	0.014	0.002
	2	0.013	0.939	0.050	-2.301	0.925	0.069	0.804	0.014	0.008
E_5	1	0.033	0.903	0.045	1.339	0.902	0.060	-0.071	0.000	0.000
	2	0.030	0.929	0.049	-1.493	0.928	0.068	0.088	0.000	0.000
	3	0.013	0.006	0.002	0.033	0.005	0.000	-0.021	0.000	0.000
E_6	1	0.068	0.975	0.004	0.299	0.957	0.006	-0.118	0.018	0.001
	2	0.007	0.964	0.036	-2.674	0.948	0.051	0.988	0.016	0.007
	3	0.001	0.588	0.002	-1.008	0.550	0.001	0.754	0.038	0.001
LH	1	0.003	0.822	0.017	-2.542	0.820	0.021	-0.357	0.002	0.000
	2	0.016	0.955	0.025	-1.484	0.955	0.036	-0.058	0.000	0.000
	3	0.028	0.070	0.004	-0.078	0.027	0.000	-0.276	0.042	0.002
	4	0.019	0.921	0.014	0.995	0.913	0.018	0.270	0.008	0.001
	5	0.010	0.787	0.020	1.528	0.778	0.023	0.455	0.009	0.002
	6	0.001	0.652	0.003	2.026	0.642	0.003	0.729	0.010	0.000

Appx 4: Correspondence Analysis Output for Relationship Between Occupational Status and Aggregate Scores

```

Correspondence analysis
Number of obs      =      8,633
Pearson chi2(32)   =    1316.24
Prob > chi2        =      0.0000
Total inertia      =      0.1525
9 active rows      Number of dim. =      2
5 active columns   Expl. inertia (%) =    97.78
  
```

Dimension	singular value	principal inertia	chi2	percent	cumul percent
dim 1	.3764006	.1416774	1223.10	92.92	92.92
dim 2	.0860722	.0074084	63.96	4.86	97.78
dim 3	.050378	.0025379	21.91	1.66	99.45
dim 4	.0290194	.0008421	7.27	0.55	100.00
total		.1524659	1316.24	100	

Statistics for row and column categories in symmetric normalization

Categories	overall			dimension_1			dimension_2		
	mass	quality	%inert	coord	sqcorr	contrib	coord	sqcorr	contrib
Occupation-s									
1	0.075	0.997	0.209	1.027	0.932	0.210	0.568	0.065	0.280
2	0.119	0.997	0.400	1.164	0.997	0.429	-0.012	0.000	0.000
3	0.065	0.954	0.047	0.457	0.710	0.036	-0.561	0.245	0.236
4	0.051	0.960	0.006	0.082	0.140	0.001	-0.417	0.820	0.102
5	0.184	0.982	0.008	-0.127	0.967	0.008	-0.033	0.015	0.002
6	0.176	0.746	0.046	-0.278	0.733	0.036	0.078	0.013	0.013
7	0.129	0.990	0.074	-0.462	0.920	0.073	-0.266	0.070	0.106
8	0.111	0.948	0.042	-0.379	0.947	0.042	-0.019	0.001	0.000
9	0.091	0.980	0.169	-0.829	0.906	0.165	0.497	0.074	0.260
AggregateS-d									
1	0.200	0.988	0.286	-0.738	0.941	0.289	0.347	0.047	0.279
2	0.200	0.958	0.139	-0.517	0.952	0.142	-0.086	0.006	0.017
3	0.201	0.641	0.015	-0.080	0.206	0.003	-0.242	0.434	0.137
4	0.199	0.926	0.091	0.377	0.767	0.075	-0.359	0.159	0.298
5	0.200	0.999	0.469	0.961	0.971	0.490	0.340	0.028	0.269

Appx 5: Correspondence Analysis Output for Relationship Between Status in Production Relation and Aggregate Scores

Correspondence analysis	Number of obs	=	8,633
	Pearson chi2(16)	=	415.52
	Prob > chi2	=	0.0000
	Total inertia	=	0.0481
5 active rows	Number of dim.	=	2
5 active columns	Expl. inertia (%)	=	94.28

Dimension	singular value	principal inertia	chi2	percent	cumul percent
dim 1	.2051238	.0420758	363.24	87.42	87.42
dim 2	.0574662	.0033024	28.51	6.86	94.28
dim 3	.0432218	.0018681	16.13	3.88	98.16
dim 4	.029756	.0008854	7.64	1.84	100.00
total		.0481317	415.52	100	

Statistics for row and column categories in symmetric normalization

Categories	overall			dimension_1			dimension_2		
	mass	quality	%inert	coord	sqcorr	contrib	coord	sqcorr	contrib
Work_status									
1	0.606	0.840	0.040	0.089	0.513	0.024	0.135	0.327	0.192
2	0.037	0.978	0.336	-1.387	0.913	0.351	-0.702	0.065	0.321
3	0.070	0.999	0.461	1.201	0.936	0.494	-0.589	0.063	0.423
4	0.276	0.881	0.132	-0.313	0.869	0.132	-0.070	0.012	0.023
5	0.011	0.094	0.030	-0.028	0.001	0.000	0.467	0.093	0.041
AggregateS-d									
1	0.200	0.986	0.338	-0.610	0.937	0.362	-0.265	0.050	0.244
2	0.200	0.887	0.107	-0.331	0.867	0.107	0.093	0.019	0.030
3	0.201	0.449	0.037	-0.056	0.074	0.003	0.240	0.375	0.202
4	0.199	0.866	0.135	0.349	0.767	0.119	0.238	0.099	0.196
5	0.200	0.995	0.383	0.649	0.936	0.410	-0.307	0.059	0.329

Appx 6: Correspondence Analysis Output for Relationship Between Status in Production Relation Based on Firm's Scale and Aggregate Scores

```

Correspondence analysis
Number of obs      =      8,633
Pearson chi2(28)   =      504.34
Prob > chi2        =      0.0000
Total inertia      =      0.0584
Number of dim.     =      2
Expl. inertia (%)  =      94.97

8 active rows
5 active columns

```

Dimension	singular value	principal inertia	chi2	percent	cumul percent
dim 1	.2247303	.0505037	436.00	86.45	86.45
dim 2	.0705562	.0049782	42.98	8.52	94.97
dim 3	.0445517	.0019849	17.14	3.40	98.37
dim 4	.030871	.000953	8.23	1.63	100.00
total		.0584198	504.34	100	

Statistics for row and column categories in symmetric normalization

Categories	overall			dimension_1			dimension_2		
	mass	quality	%inert	coord	sqcorr	contrib	coord	sqcorr	contrib
Work_Statu~2									
1	0.002	0.976	0.037	2.171	0.785	0.034	1.912	0.191	0.084
2	0.010	0.999	0.155	1.796	0.781	0.140	1.694	0.218	0.396
3	0.059	0.999	0.239	1.013	0.972	0.268	0.296	0.026	0.073
4	0.280	0.995	0.131	0.327	0.882	0.133	-0.208	0.112	0.172
5	0.326	0.727	0.028	-0.125	0.705	0.023	-0.039	0.022	0.007
6	0.276	0.862	0.109	-0.296	0.853	0.108	0.055	0.009	0.012
7	0.037	0.986	0.277	-1.329	0.918	0.294	0.645	0.068	0.221
8	0.011	0.120	0.025	-0.020	0.001	0.000	-0.477	0.119	0.035
AggregateS~d									
1	0.200	0.990	0.347	-0.647	0.927	0.372	0.300	0.062	0.254
2	0.200	0.891	0.100	-0.336	0.865	0.101	-0.103	0.026	0.030
3	0.201	0.574	0.038	-0.049	0.049	0.002	-0.286	0.525	0.234
4	0.199	0.859	0.124	0.348	0.745	0.107	-0.243	0.114	0.166
5	0.200	0.995	0.390	0.686	0.926	0.418	0.334	0.069	0.316

Appx 7: Correspondence Analysis Output for Relationship Between Education and Aggregate Scores

```

Correspondence analysis
Number of obs      =      8,633
Pearson chi2(24)   =    1253.58
Prob > chi2        =      0.0000
Total inertia      =      0.1452
7 active rows
5 active columns   Number of dim.   =      2
                    Expl. inertia (%) =    99.69

```

Dimension	singular value	principal inertia	chi2	percent	cumul percent
dim 1	.3743164	.1401128	1209.59	96.49	96.49
dim 2	.0682034	.0046517	40.16	3.20	99.69
dim 3	.017922	.0003212	2.77	0.22	99.92
dim 4	.0110421	.0001219	1.05	0.08	100.00
total		.1452076	1253.58	100	

Statistics for row and column categories in symmetric normalization

Categories	overall			dimension_1			dimension_2		
	mass	quality	%inert	coord	sqcorr	contrib	coord	sqcorr	contrib
Education									
0	0.025	0.999	0.094	1.156	0.933	0.090	0.722	0.066	0.194
1	0.029	0.985	0.065	0.892	0.904	0.061	0.624	0.081	0.164
2	0.380	0.997	0.171	0.416	0.991	0.176	0.078	0.006	0.034
3	0.129	0.996	0.042	0.316	0.781	0.034	-0.388	0.215	0.285
4	0.098	0.822	0.004	-0.093	0.510	0.002	-0.171	0.313	0.042
5	0.102	0.936	0.008	-0.071	0.163	0.001	-0.360	0.773	0.194
6	0.237	1.000	0.615	-1.001	0.995	0.635	0.159	0.005	0.088
AggregateS~d									
1	0.200	1.000	0.348	0.808	0.967	0.348	0.350	0.033	0.358
2	0.200	0.994	0.145	0.517	0.954	0.143	-0.249	0.040	0.183
3	0.201	0.745	0.006	0.014	0.019	0.000	-0.208	0.727	0.127
4	0.199	0.996	0.135	-0.506	0.974	0.136	-0.177	0.022	0.092
5	0.200	1.000	0.367	-0.836	0.979	0.373	0.287	0.021	0.241

Appx 8: Correspondence Analysis Output for Relationship Between Grouped Overall Disposable Income and Aggregate Scores

```

Correspondence analysis          Number of obs      =      8,633
                                Pearson chi2(24)      =    2847.54
                                Prob > chi2          =      0.0000
                                Total inertia         =      0.3298
7 active rows                   Number of dim.         =       2
5 active columns                Expl. inertia (%)    =     99.55

```

Dimension	singular value	principal inertia	chi2	percent	cumul percent
dim 1	.5353034	.2865497	2473.78	86.87	86.87
dim 2	.2044924	.0418171	361.01	12.68	99.55
dim 3	.0362805	.0013163	11.36	0.40	99.95
dim 4	.0126507	.00016	1.38	0.05	100.00
total		.3298432	2847.54	100	

Statistics for row and column categories in symmetric normalization

Categories		overall			dimension_1			dimension_2		
		mass	quality	%inert	coord	sqcorr	contrib	coord	sqcorr	contrib
Income	1	0.100	0.993	0.207	1.034	0.839	0.200	0.718	0.155	0.252
	2	0.050	0.989	0.069	0.878	0.904	0.072	0.434	0.084	0.046
	3	0.150	0.997	0.095	0.620	0.987	0.108	0.101	0.010	0.008
	4	0.100	0.958	0.026	0.377	0.886	0.026	-0.174	0.072	0.015
	5	0.200	0.996	0.022	0.112	0.181	0.005	-0.383	0.815	0.144
	6	0.200	0.987	0.065	-0.277	0.386	0.029	-0.559	0.601	0.306
	7	0.200	1.000	0.516	-1.225	0.943	0.560	0.485	0.056	0.230
AggregateS~d	1	0.200	0.998	0.325	0.937	0.875	0.328	0.567	0.123	0.314
	2	0.200	0.978	0.094	0.522	0.943	0.102	-0.162	0.035	0.026
	3	0.201	0.989	0.028	0.110	0.140	0.005	-0.440	0.850	0.190
	4	0.199	0.984	0.083	-0.410	0.653	0.063	-0.472	0.331	0.217
	5	0.200	1.000	0.470	-1.161	0.931	0.504	0.509	0.068	0.253

CIRRICULUM VITAE

PERSONAL INFORMATION

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EDUCATION

Master's Degree

Yıldız Technical University, Economics in English, 2016-2019, Istanbul.

Bachelor's Degree

Istanbul University, Sociology, 2012-2015, Istanbul.

PUBLICATIONS AND CONFERENCE PRESENTATIONS

“Will Turkey Be Able to Continue Indebtedness in the Context of Financial Fragility?”

- 20th International Students' Conference on Economics, Ege University, 26-28 April 2017, Izmir, Turkey.

“An Empirical Class Analysis Based on Indebtedness, Expenditure and Living Conditions”

- International Conference on Recent Interdisciplinary Studies in Humanity (ICRISH), La Sapienza University of Rome & Richtmann Publishing London, 26-27 October 2018, Rome, Italy, pp.28-38.
- 6th International Conference on Economics, Turkish Economic Association (ICE-TEA), 1-3 November 2018, Antalya, Turkey, pp. 696-709.

COMPUTER SKILLS

MS Office, LaTeX typesetting system, STATA (Data Analysis and Statistical Software)