

REVEALING REGIONAL EMPLOYMENT PERFORMANCE: EXPLORING PERSPECTIVES BEYOND TRADITIONAL GROWTH APPROACHES

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Abstract

The objective of this study is to evaluate non-growth-related factors influencing employment, delving beyond conventional perspectives. This research aims to unveil the relationships between overall employment performance and other different factors that impact regional economies. Moreover, it becomes feasible to identify the differences and similarities present across various economic regions by adopting an employment-centric approach. For this purpose, a research covering a decade was conducted in specific regional zones, examining the difference between growth and unemployment trends within Türkiye, a nation often classified as developing. The data encompasses the years 2010 to 2020. Data beyond 2020 were not included in the study by virtue of the unpredictable impacts of the Covid-19 pandemic. In order to avoid data loss in the study, missing data were interpolated based on time series analysis. Additionally, the data were transformed to achieve stationarity and freed from autocorrelation effects. Through causality analysis, empirical findings were obtained at a relatively micro level by pinpointing factors demonstrating a causal relationship with employment. Based on the research findings, employment performance displays regional variation independent of the country's macro-level data. These variations may be influenced by factors such as local dynamics to each region. Observations reveal that in underdeveloped countries lacking geographical homogeneity, regional micro-level data tend to contain more reliable information than macro-level data. Therefore, there's an increasing emphasis on decision-makers having a deeper perspective and directing their attention to local economic regions before making pivotal economic decisions. This article questions the established relationship between employment performance and geography. This research is original as it attempts to identify factors that coincide with employment performance by considering sectoral structure, foreign trade, market size, sectoral diversity and demographic structure within local areas.

Keywords: Employment, Growth, Regional Differences, Regional Economic Factors

JEL Code: M51, N30, O15

1. INTRODUCTION

Organizations use factors such as entrepreneurial spirit, natural resources, labor, capital and knowledge in production activities determined according to their organizational goals. Bringing these factors together and keeping them together within constraints such as efficiency and effectiveness depends on difficult administrative processes. Therefore, organization managers try to dominate the organization's route on the target by performing actions such as planning, organizing, employment, coordination and supervision in order. This study aims to examine which decisions labor, which has an important place among production factors, is exposed to and how the general employment activities of the organization are shaped. In fact, the focus was on investigating how much the employment activities, which initially seemed to be based on the organizations' own internal decisions, were affected by the macroeconomic level. Because there is a close relationship between employment and growth, and because of this relationship, growth is an important element that increases employment. The employment policies of countries are also explained based on this general idea. This evaluation can be accepted in general terms, but it should also be considered that it may be misleading to consider policies

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concerning the country level in such a broad framework. Therefore, this study focused on investigating the existence of other sub-factors affecting employment and attempted to reveal the relationship between employment and economic factors at a more regional level. It is considered that the growth equals employment formula may be misleading, especially in countries such as Turkey, which have different economic and social areas within their borders. This study examined regional variables and attempted to reveal their relationship with employment based on regional differences. Therefore, with this research, regional data has been examined in detail as much as possible and an empirical conclusion has been reached on whether these factors affect employment performance. Because it would not be very wise to accept that each region within the country will be affected homogeneously at the same level with the relative growth of the country. In fact, different social economic areas have been defined in Turkey and local data is collected in these different statistical regions. Thus, it is evaluated that research that will be conducted by considering employment as a regional concept will be beneficial to general employment policy. It is thought that Turkey, which experiences regional inequalities a lot, is a good area to study. However, it is observed that the studies conducted for our country are generally conducted on the income inequality and investment differences in the east-west axis (Filiztekin, 1998; Gezici and Hewings, 2004; Karaca, 2004; Yıldırım et al., 2009). From this perspective, expanding the same axis a little more and focusing on the employment issue will provide social benefits.

2. THEORETICAL FRAMEWORK & LITERATURE REVIEW

At first, growth, which meant the accumulation of income (Ramsey, 1928), was defined as the combination of labor, investments and technological development (Slow, 1956) with neoclassical movements. The most popular growth models are the combinations obtained by using gross domestic product, human and physical capital and unskilled labor. In the modern period, the thesis that technology is an endogenous variable (Romer, 1994; Fine, 2000) has gained weight and endogenous growth models have come to the fore. Today, it can easily be said that an open trade approach (Konget al., 2021; Ergül and Soylu, 2022) prevails. Therefore, the area covered by labor in growth models seems to have lost its importance over time.

2.1. Growth & employment relations

There have been numerous studies investigating growth in the past (Domar, 1946; Harrod, 1948; Solow, 1956; Romer, 1986; Lucas, 1988; Romer, 1990; Barro, 1990). Growth has a relationship with education (Hoselitz, 1955; Friedman, 1969; Lucas, 1988; Rauch, 1991; Ragan and Trehan, 1998; Gabaix, 1999; Duranton, 2004) and the accumulation of capital (Clark and Stabler, 1991; De Long and Shleifer, 1993; Glaeser et al., 1995; Bradley and Gans, 1998; Viledecans Marsal, 2002; Da Mata et al., 2005) and this is a known fact.

2.2. Regional employment performance

There are various perspectives in the literature, and these indicate that employment performance exhibits regional variations (Duran, 2017). This study is founded upon the five most prominent viewpoints among these perspectives. The first perspective (*Sectoral Diversity*) suggests that a region's diverse range of industries reduces economic fluctuations and overcomes employment problems (Kort, 1981; Brewer and Moomaw, 1985; Malizia and Ke, 1993).

The second perspective (*Foreign Trade*) asserts that the most important factor influencing employment is the strength of foreign trade activities in the region (Baldwin and Brown, 2004).

The third perspective (*Demographic Structure*) argues that both population size and educational attainment levels are determinants of employment performance (Flesisherand Rhodes, 1976; Lee and Miller, 2000; Trendle, 2006; Owyang et al., 2008; Jaimovic and Siu, 2009; Ezcurra 2010).

The fourth perspective (*Market Size*) argues that the relatively large market in metropolitan cities creates greater chances for labor mobilization and enhances the alignment between labor supply and demand (Begovic, 1992; Trendle, 2006).

The fifth perspective (*Sectoral Structure*) suggests that credit movements play an important role and can render employment and other economic factors more vulnerable in regions with high-intensity manufacturing, capital goods, and construction production (Pose and Fratesi, 2007).

Therefore, to examine regional employment performance in Turkey, variables under the main headings of sectoral structure, foreign trade, sectoral diversity, market size and demographic structure should be analyzed. For sectoral structure it would be appropriate to analyze regional GDP, regional inflation, food, housing, transportation, basic spending ability and poverty. For foreign trade it would be appropriate to analyze foreign trade volume. For sectoral diversity it would be appropriate to examine data such as number of industrial enterprises, number of tourists, and housing sales beside this to analyze market size, bank deposit volume, cash loan volume and electricity consumption will be needed. Finally, for demographic structure, it is necessary to examine the population, education status (graduate, undergraduate, high school) and migration mobility among the settled workforce in that region (Table 1).

Table 1. Examined Variables Associated with Before Approaches

Perspectives	Regional Variations to be Followed
Sectoral Structure	Regional GDP, regional inflation, food expenditure, housing expenditure, transportation expenditure, poverty
Foreign Trade	Foreign trade volume
Market Size	Bank deposit volume, cash loan volume, electricity consumption
Sectoral diversity	Number of industrial enterprises, number of tourists, housing sales
Demographic Structure	Population, number of PhD Graduate, number of college graduates, number of college graduates (Female), number of high school graduates, net migration

Source: It was created by the author

In this study, the following hypotheses were established because the interaction between sectoral structure, foreign trade, sectoral diversity, market size and demographic structure and regional employment was aimed to be investigated. Each hypothesis was tested by taking different socioeconomics regions of Turkey as a sample and testing the data in these regions.

H1: The influence of sectoral structure on employment performance differs among socioeconomic regions.

H2: The influence of foreign trade on employment performance differs among socioeconomic regions.

H3: The influence of market size on employment performance differs among socioeconomic regions.

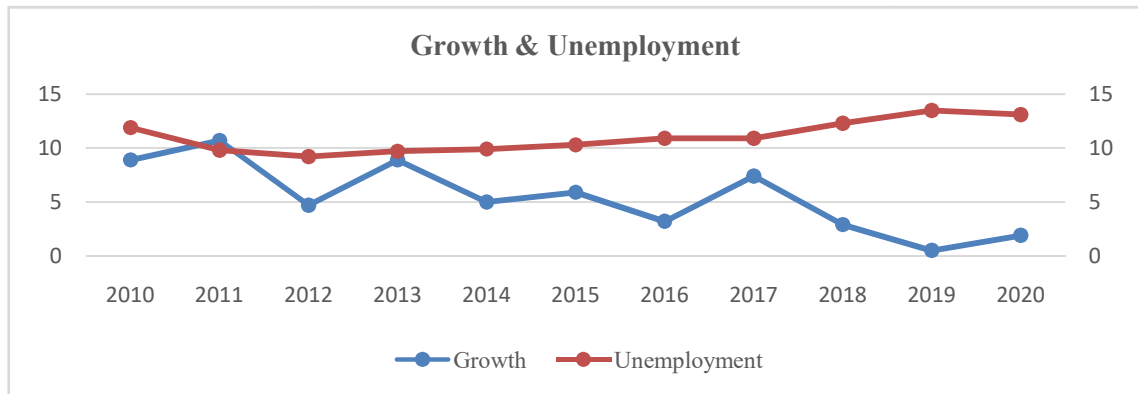
H4: The influence of sectoral diversity on employment performance differs among socioeconomic regions.

H5: The influence of demographic structure on employment performance differs among socioeconomic regions.

3. A GOOD EXAMPLE: TÜRKİYE

Türkiye, due to its population size and economic scale, can be considered as a notable illustration among developing countries. Turkey has characteristics such as having a high labor supply but being a country that is relatively behind in technological production and being stubborn in economic growth. From this perspective, being a sample for the research increases the expectations for interesting results. Despite experiencing significant fluctuations in growth rates between 2010 and 2020, the unemployment rates display a trend of relative constancy during this period (Chart 1).

Chart I: Growth & Unemployment under the title of Turkey example



Source: TUIK, 2022 (The Statistics of Türkiye)

As evident in the Turkish case, there is no parallelism between growth and employment performance. Thus, it can be stated that there is not a direct and fixed relationship between growth and employment in Türkiye. Consequently, it would be reasonable to investigate factors influencing employment in developing countries through an in-depth examination of regional differences. Hence, it would be prudent to focus on the existence of other factors influencing Türkiye's employment performance. Assessing these elements on a regional basis can provide a comprehensive overview since Türkiye has diverse geographical and economic characteristics across the west-east axis. It is not easy to describe the inadequate employment performance in a country with regions with substantial differences in population, education, and development. Specifically, determining the extent to which growth contributes to employment becomes difficult, particularly in a nation with a densely concentrated young population like this one. However, the prominent perspective proposed by Jacobs (1969), which suggests that the growth of cities positively contributes to a country's overall economic growth, is increasingly gaining

significance. So, does this change in urban scale similarly impact employment? This question remains one to be addressed. It is considered that explaining the concept of employment solely through a country's macroeconomic data without examining the regional dynamics is incomplete and inaccurate. However, a different approach is needed to scrutinize regional variables and identify additional economic factors that might correlate with employment. This study fills a gap and sets the stage for future research endeavors aiming to illuminate the broader spectrum of economic factors influencing employment by focusing on the concept of "other." It also aims to pinpoint the appropriate environment for optimal employment performance by examining additional economic indicators on a regional basis. For this reason, it is initially thought that employment performance within a region could fluctuate due to various factors. These factors include the regional economic climate, demographic composition of residents, local entrepreneurship and sectoral structure, and notably, the governmental policies specific to that locality.

Türkiye exhibits diverse demographic, cultural, geographical, and economic characteristics from its western to eastern regions. The country is divided into seven geographical regions on its physical maps. However, from a sociological standpoint, this classification is rooted in economic and cultural realities. In Türkiye, the western provinces, especially those along the coastline, tend to high income level compared to others. Moreover, the population density is higher, and the education level is elevated in these regions. Furthermore, apart from the seven traditionally recognized geographical regions, on September 22, 2002 (aligning with Türkiye's harmonization efforts with the European Union), the State Planning Organization, and the Turkish Statistical Institute collaborated to establish statistical regions in accordance with the law no. 2002/4720. 81 provinces of Türkiye are classified into 12 regions at Level 1 and 26 regions at Level 2. For this study, a middle ground was chosen, focusing on data from 7 statistical regions between 2010 and 2020, deemed representative of the entire country. Data after 2020 were not used consciously due to the adverse impact of Covid-19. Moreover, the province/region of Istanbul, which accommodates 20% of the nation's population and possesses metropolitan characteristics, was deliberately excluded from this study. The sample encompasses residential areas where approximately 46 million people reside, constituting 67% of the population outside Istanbul (Table 2).

Table 2. Statistical Regions and Population of Türkiye (2022)

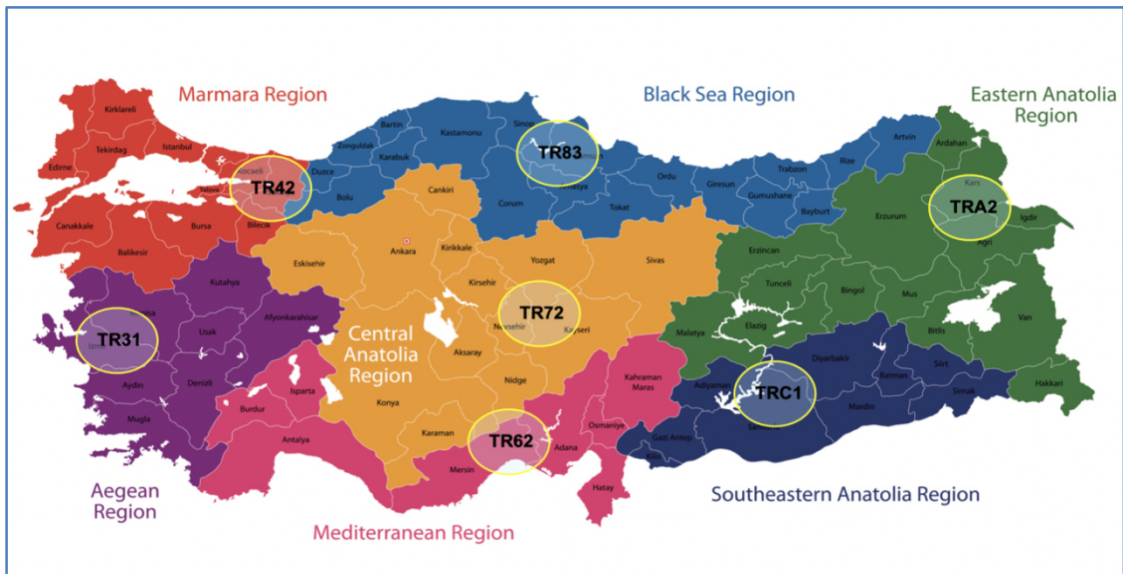
(The study encompasses regions marked with stars.)

Code	Regions	Population	Rural Population	Urban
TR1	Istanbul	15.462.452	0	15.462.452
TR2	Western Marmara	3.632.398	417.106	3.215.292
TR3 *	Aegean	10.689.115	543.886	10.145.229
TR4 *	Eastern Marmara	8.235.816	331.387	7.904.429
TR5	West Anatolia	8.168.261	62.605	8.105.656
TR6 *	Mediterranean	10.759.218	320.465	10.438.753
TR7 *	Middle Anatolia	4.088.228	756.820	3.331.408
TR8 *	Western Blacksea	4.638.622	1.088.870	3.549.752
TR9	EasternBlacksea	2.677.584	382.625	2.294.959
TRA *	Northeastern Anatolia	2.192.453	597.343	1.595.110
TRB	Middle East Anatolia	3.951.286	733.546	3.217.748
TRC *	Southeastern Anatolia	9.118.921	643.668	8.475.253

Source: TÜİK, 2022(The Statistics of Türkiye)

The map (Figure I) illustrates the positions of the chosen statistical regions along the west-east axis, displaying their geographical locations and relative distances from each other. Due to the physical characteristics of Anatolian Geography.

Figure I: Geographic Locations of Chosen Statistical Regions



Source: It was created by the author. The image was downloaded from public websites.

4. RESEARCH

According to five most prominent perspectives of previous perspectives (Duran, 2017), this study is founded upon the employment and the others. This study examined regional variables and attempted to reveal their relationship with employment based on regional differences. Therefore, with this research, regional data has been examined in detail as much as possible and an empirical conclusion has been reached on whether these factors affect employment performance. For this research, the regions of Turkey were examined.

4.1. Purpose and Importance of the Research

The aim of this research is to add a new view to the use of employment policies in general. To be able to open a parenthesis to the perceptions of policy makers and decision makers about the relationship between growth and employment. For this reason, to be able to develop the idea that employment policies should not be determined homogeneously across the country but rather differently according to local dynamics. It is anticipated that this perspective will result in more efficient consumption of resources used in employment policies.

4.2. Population and Sample of the Research

Regional factors believed to correlate with employment performance were chosen and grouped. Analysis was conducted across three primary categories to maintain research integrity and ensure traceability. In this way, microeconomic factors were grouped at the regional level to ensure they are organized, comparable, and analyzable. The data utilized in this research were taken from a professional web site named as dataturkey.com.tr. DataTurkey is an organization that combines and collectively publishes economic, social, sectoral and regional data compiled from 16 public institutions and private organizations in Türkiye. The information was extracted from the relevant website during November and December 2022 when the university I work had an open access agreement for faculty members

4.3. Research Method

In the study, the initial step involved categorizing the independent variables, comprising 7 regions and 19 indicators, into five main categories. Additionally, each region has one dependent variable (employment). There are values for each variable ($7 \times 19 + 7 = 140$). To avoid data loss, these variables were interpolated based on time series. Subsequently, each dataset underwent assessments to ensure stationarity and evaluate autocorrelation. Following the essential logarithmic transformation and differencing procedures aimed at eradicating autocorrelation and ensuring stationarity, the investigation then focused on exploring the causality between the dependent and independent variables. The Engle-Granger Causality Analysis method was employed for this purpose. Granger causality is an econometric test used to verify the usefulness of one variable in predicting another. In the tables below, variables that may or may not exhibit a causal relationship with employment across the seven regions are shown together with their relationship scores.

4.4. Findings and Discussion

The analyses were conducted separately for the seven selected regions. The data that will help us understand the sectoral structure, foreign trade, market size, sectoral diversity and demographic structure features were subjected to a one-to-one relationship test by keeping the employment variable constant. Tables were prepared to see the relationship between variables and any interactions that existed were revealed.

Table3. Engle-Granger Causality Analysis for TR31 Region

Variables	Variable with Causality	Score	Variable without Causality	Score
Sectoral Structure	Regional GDP	0,001*	Regional Inflation	0,2212
	Poverty	0,002*	Food Expenditure	0,0765
			Housing Expenditure	0,5929
			Transportation Expenditure	0,1748
Foreign Trade			Foreign Trade Volume	0,129
Market Size	Bank Deposit Volume	0,006*	Cash Loan Volume	0,253
	Electricity Consumption	0,001*		
Sectoral Diversity	Number of Industrial Enterprisers	0,007*	Number of Tourists	0,164
	Housing Sales	0,025*		
Demographic Structure	Net Migration	0,029*	Population	0,647
			PhD Graduate	0,754
			High School Graduate	0,220
			College	0,506
			College (female)	0,536

Based on the outcomes of the Engle-Granger causality test for the TR31 region, it was found that sectoral structure, market size and sectoral diversity significantly influenced the "employment" variable. However, within the same region foreign trade and demographic structure related variables were identified as not affecting the "employment" variable. TR31 covers the province of Izmir. The fact that Izmir is one of the port cities of the country and a relatively developed city requires thinking about the results obtained. In particular, the irrelevance of foreign trade is striking.

Table 4. Engle-Granger Causality Analysis for TR42 Region

Variables	Variable with Causality	Score	Variable without Causality	Score
Sectoral Structure	Regional GDP	0,021*	Regional Inflation	0,349
	Housing Expenditure	0,001*	Food Expenditure	0,224
	Transportation Expenditure	0,013*		
	Poverty	0,003*		
Foreign Trade	Foreign Trade Volume	0,001*		
Market Size	Electricity Consumption	0,007*	Cash Loan Volume	0,080
			Bank Deposit Volume	0,621
Sectoral Diversity	Number of Industrial Enterprisers	0,007*	Housing Sales	0,248
	Number of Tourists	0,011*		
Demographic Structure	Net Migration	0,001*	Population	0,309
	College	0,004*	PhD Graduate	0,641
	College (female)	0,047*	High School Graduate	0,642

According to the results of the Engle-Granger causality test conducted for the TR42 region, it was found that sectoral structure, foreign trade and sectoral diversity significantly influenced the "employment" variable. However, within the same region market size and demographic structure related variables were identified as poorly affecting the "employment" variable according to sub-items. TR42 covers the provinces of the Marmara Region. These provinces are relatively developed and rich provinces that are concentrated in the manufacturing sector. It is an acceptable result that the results have causality with employment in all categories.

Table 5. Engle-Granger Causality Analysis for TR62 Region

Variables	Variable with Causality	Score	Variable without Causality	Score
Sectoral Structure	Regional GDP	0,001*	Regional Inflation	0,068
	Housing Expenditure	0,001*	Poverty	0,310
	Transportation Expenditure	0,001*		
	Food Expenditure	0,001*		
Foreign Trade			Foreign Trade Volume	0,076
Market Size	Electricity Consumption	0,001*	Cash Loan Volume	0,720
	Bank Deposit Volume	0,001*		
Sectoral Diversity	Number of Industrial Enterprisers	0,015*	Housing Sales	0,576
	Number of Tourists	0,004*		
Demographic Structure	Net Migration	0,001*	Population	0,159
	College	0,002*	PhD Graduate	0,602
	College (female)	0,001*		
	High School Graduate	0,001*		

According to the results of the Engle-Granger causality test conducted for the TR62 region, it was found that sectoral structure, sectoral diversity and demographic structures significantly influenced the "employment" variable. However, within the same region foreign trade was identified as not affecting the "employment" variable. TR62 covers tourism and agriculture-oriented provinces as Adana, Mersin & Antalya. Although they are port cities, their export potential is relatively low. It can be predicted that production-oriented diversity will have an impact on employment in this region.

Table 6. Engle-Granger Causality Analysis for TR72 Region

Variables	Variable with Causality	Score	Variable without Causality	Score
Sectoral Structure	Regional GDP	0,001*	Regional Inflation	0,073
	Housing Expenditure	0,001*	Poverty	0,161
	Transportation Expenditure	0,001*	Food Expenditure	0,065
Foreign Trade			Foreign Trade Volume	0,545
Market Size	Electricity Consumption	0,001*	Cash Loan Volume	0,496
	Bank Deposit Volume	0,002*		
Sectoral Diversity	Number of Industrial Enterprisers	0,001*	Number of Tourists	0,141
	Housing Sales	0,001*		
Demographic Structure	Net Migration	0,001*	PhD Graduate	0,269
	College	0,001*		
	College (female)	0,001*		
	High School Graduate	0,001*		
	Population	0,001*		

Based on the outcomes of the Engle-Granger causality test for the TR72 region, it was found that market size, sectoral diversity and demographic structures significantly influenced the "employment" variable. However, within the same region foreign trade related variables were identified as not affecting the "employment" variable. TR72 covers the inner regions of Turkey. Tourism and export opportunities are limited. The results of the variables foreign trade and number of tourists are therefore explanatory. In addition, the effect of education status in this region is striking.

Table 7. Engle-Granger Causality Analysis for TR83 Region

Variables	Variable with Causality	Score	Variable without Causality	Score
Sectoral Structure	Regional Inflation	0,048*	Regional GDP	0,344
	Housing Expenditure	0,001*	Food Expenditure	0,070
	Poverty	0,001*	Transportation Expenditure	0,642
Foreign Trade	Foreign Trade Volume	0,001*		
Market Size	Electricity Consumption	0,001*	Cash Loan Volume	0,056
			Bank Deposit Volume	0,293
Sectoral Diversity	Number of Industrial Enterprisers	0,009*	Number of Tourists	0,234
	Housing Sales	0,033*		
Demographic Structure	College	0,003*	PhD Graduate	0,124
	College (female)	0,002*	Net Migration	0,215
			Population	0,422
			High School Graduate	0,357

Based on the outcomes of the Engle-Granger causality test for the TR83 region, it was found that foreign trade and sectoral diversity significantly influenced the "employment" variable. However, within the same region sectoral and demographic structure related variables were identified poorly affecting the "employment" variable. TR83 represents relatively developed, rich cities in the north of the country, such as Samsun. Tourism is low. The lack of correlation between education and employment is striking.

Table 8. Engle-Granger Causality Analysis for TRC1 Region

Variables	Variable with Causality	Score	Variable without Causality	Score
Sectoral Structure	Regional Inflation	0,003*	Regional GDP	0,225
	Housing Expenditure	0,042*	Food Expenditure	0,108
			Transportation Expenditure	0,139
			Poverty	0,582
Foreign Trade			Foreign Trade Volume	0,191
Market Size			Cash Loan Volume	0,550
			Bank Deposit Volume	0,641
			Electricity Consumption	0,258
Sectoral Diversity	Number of Industrial Enterprisers	0,022*	Number of Tourists	0,357
			Housing Sales	0,586
Demographic Structure			PhD Graduate	0,110
			Net Migration	0,229
			Population	0,920
			High School Graduate	0,378
			College	0,244
		College (female)	0,135	

According to the results of the Engle-Granger causality test conducted for the TRC1 region, it was found that none of the variables significantly influenced the "employment" variable. However, within the same region foreign trade, market size and demographic structure was identified as not affecting the "employment" variable. TRC1 represents provinces such as Gaziantep in the south-east of the country. These provinces are successful in agriculture and effective in exports. They are popular in terms of gastronomy tourism. The fact that the number of Industrial Enterprisers effect is quite dominant on employment is a data that should be noted.

Table 9. Engle-Granger Causality Analysis for TRA2 Region

Variables	Variable with Causality	Score	Variable without Causality	Score
Sectoral Structure	Regional Inflation	0,001*	Regional GDP	0,414
	Transportation Expenditure	0,025*	Food Expenditure	0,054
			Housing Expenditure	0,549
			Poverty	0,097
Foreign Trade	Foreign Trade Volume	0,008*		
Market Size	Bank Deposit Volume	0,001*		
	Cash Loan Volume	0,002*		
	Electricity Consumption	0,001*		
Sectoral Diversity			Number of Tourists	0,136
			Housing Sales	0,073
			Number of Industrial Enterprisers	0,104
Demographic Structure	PhD Graduate	0,001*		
	Net Migration	0,001*		
	Population	0,048*		
	High School Graduate	0,014*		
	College	0,001*		
	College (female)	0,009*		

According to the results of the Engle-Granger causality test conducted for the TRA2 region, it was found that foreign trade, market size and demographic structure significantly influenced the "employment" variable. However, within the same region sectoral diversity was identified as not affecting the "employment" variable. Sectoral structure changes appear to be at a moderate level. TRA2 covers provinces such as Iğdır and Van, which are relatively the poorest regions of Turkey. Sectors other than agriculture and animal husbandry are underdeveloped. Therefore, it is surprising that sectoral diversification is so unreasonably associated with employment.

RESULTS

Data from seven different statistical regions in Türkiye, classified based on geographical criteria in the developing country category, were analyzed. The dataset comprises actual numerical values recorded over a decade. Within these selected regions, causality analyzes were performed between employment performance and 19 different factors categorized into five categories.

Based on the findings of the research, it is observed that regional GDP demonstrates a diminishing relationship with employment as we transition from west to east (with decreasing affluence). The regional inflation, typically a concern for developing nations, influences employment performance in four out of seven regions, especially showcasing its impact in the eastern regions. Housing and Transportation Expenditures are associated with central and southern regions, while Foreign Trade Volume and Poverty are associated with employment only in the northern regions. However, Food Expenditures could not be associated with employment outside of a single region. The regional significance of the relationship between Bank Deposit Volume, Number of Industrial Enterprises, and Electricity Consumption with employment is notable. However, the association between Number of Tourists and Cash Loan Volume with employment has not been clearly observed on a regional basis. Furthermore, the Number of House Sales on employment appears effective across several regions, irrespective of geographical differences. The overall Population situation is not related to employment performance when analyzed regionally. Regarding the educational aspect, the association between PhD attainment and employment is not prominent, except for one region (the poorest). However, findings related to the College Graduates, College Graduates (females), and High School Graduates reveal substantial associations with employment and exhibit regional similarities. Additionally, it is worth noting that Net Migration generally correlates with employment and tends to be concentrated in the western regions. As a result, it is thought that decision makers who aim to enhance employment performance in Türkiye to approach the issue from a regional standpoint. If the relationship between a nation's growth and employment performance is weak, considering regional disparities could yield more effective outcomes. This situation becomes evident in the Turkish sample. Within this country, characterized by different statistical and geographical regions, the factors influencing employment vary distinctly by region. For instance, factors like GDP, housing expenditures, industrial enterprises, and electricity consumption diminish in their impact on employment as we transition from west to east. Moreover, it is seen that the influence of the number of individuals with PhD on the causality relationship between education and employment is nearly negligible, except for the eastern regions.

Based on the research findings, the influence of sectoral structure with regional GDP, regional inflation, food, housing and transportation expenditures, as well as poverty, on employment performance showcases variability across socioeconomic regions. Consequently, hypothesis H1 has been validated.

Similarly, the impact of foreign trade variables like foreign trade volume demonstrates on employment performance regional variation within socioeconomic regions. Thus, confirming hypothesis H2.

Based on the findings, the influence of market size including bank deposit volume, cash loan volume and electricity consumption on employment performance showcases variation across socioeconomic regions. So it is accepted that hypothesis H3 has been validated.

Similarly, the impact of sectoral diversity variables like number of tourists, housing sales and number of industrial enterpriserson employment performance demonstrates regional variation within socioeconomic regions. It confirms hypothesis H4.

Furthermore, the effect of market size including population, number of individuals with doctoral degrees, college graduates, high school graduates, and net migration on employment performance showcases variation across socioeconomic regions. This observation confirms hypothesis H5.

Based on the research findings, the perspective advocated by researchers like Kort (1981), Brewer and Moomaw (1985), Malizia and Ke (1993), suggesting that "sectoral diversity in a region reduces economic fluctuations and resolves employment issues," could provoke debate, particularly concerning developing countries. Similarly, Baldwin and Brown's (2004) view that "the paramount factor influencing employment lies in the robustness of foreign trade activities within a region" merits deliberation, especially concerning nations such as Türkiye. Nevertheless, the perspectives put forth by Flesisher and Rhodes (1976), Lee and Miller (2000), Trendle (2006), Owyang et al. (2008), Jaimovic and Siu (2009) and Ezcurra (2010) appear to align with the notion that "population and educational attainment are pivotal factors influencing employment performance," with education being influential up to a certain threshold (high school). However, in developing nations, the impact of population rate on employment might not be as substantial as previously perceived. There are no definitive findings available pertaining to the viewpoint of Begovic (1992) and Trendle (2006) suggesting that "the substantial market in metropolitan cities offers increased opportunities for labor mobilization and aligning labor supply with demand." However, an examination of the relationship between the numbers of industrial enterprises and employment performance leads to the conclusion that their assertion holds true. Finally, this research yielded results that support the view put forth by Pose and Fratesi (2007) emphasizing that "credit movements hold significant importance in regions characterized by intense manufacturing, capital goods, and construction production, thereby affecting employment and other economic facets in a delicate manner."

There is a perceived opportunity for further exploration by researchers focusing on various factors from a regional perspective. Conducting similar studies collectively analyzing the outcomes can aid governments and local authorities (municipalities) in making more accurate decisions since financial supports are offered to involved stakeholders to increase employment performance in developing countries. Examples of such financial support include entrepreneur support packages, tax deductions linked to employment growth, and reduced loan interest rates targeting sectors expected to bolster employment. Consequently, the support provided by governments imposes costs that are shouldered by the entire population. This situation aligns with public value theory (Moore, 1995). Governments are accountable for their decisions (Nabatchi, 2017), yet inquiries regarding public desires (Talbot, 2011) or the public's interests shaped by these decisions (Cardella and Paletti, 2018) aren't always straightforward since activities aimed at enhancing employment performance entail numerous expectations and uncertainties, as in all kinds of long-term investments. However, the capacity to provide the necessary responses is also associated with the country's degree of democracy (Panagiotopoulos et al., 2019). Setting aside the political aspect of the issue, employment performance can

relatively increase household income and offer advantages in providing the sustainable income for businesses aiming to expand through production. Particularly in nations with young populations like Türkiye, enhancing employment performance (reducing unemployment rates) can present crucial opportunities for development. However, the paramount factor in this pursuit involves establishing a competitive landscape not only in labor markets but also in product markets. Strategically managing employment performance regionally and aligning investment decisions accordingly can bolster market competition, thus mitigating forced mobilization to a certain extent.

This research has several limitations. Firstly, the analyzed data spans a period of only ten years, potentially restricting the depth of analysis and insight. Expanding the timeframe to include longer periods might enhance the effectiveness of the results. However, it's also essential to deliberate on the advantages and drawbacks of utilizing data predating the internet age. Moreover, due to its focus on a developing country sample, the study is confined to Türkiye and its statistical regions, limiting its generalizability beyond this specific context.

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