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**FIRM BEHAVIOR, INNOVATION AND OWNERSHIP STRUCTURE  
IN MACEDONIA**

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## INTRODUCTION

The fact that foreign owned firms generally outperform domestic firms caught significant attention in the economic literature. The studies show that firms which are foreign owned, or are parts of multinational enterprises (hereinafter: MNEs), dispose with high-level firm-specific assets, operate more frequently in research and development (hereinafter: R&D)-intensive sectors and employ more highly-qualified staff than domestically owned firms. Foreign owned and domestically owned firms also differ in their capabilities to create new products and in their ability to successfully introduce innovations to the market. Thus, these differences result in dissimilarity in employment creation (Dachs & Peters, 2013).

Namely, foreign owned firms tend to create bigger pool of job vacancies compared to domestic owned firms due to company's faster growth and business expansion. This leads to an increase in employment. Beside the bigger number of new job-openings, the foreign owned firms also have different, more intense training systems. Studies show that smaller, domestically owned companies located in smaller cities are less likely to provide employees with job training programs compared to foreign owned companies located in the capital city that tend to engage more often in such activities (Colombano & Krkoska, 2006).

Governments in transition countries are in constant search for means that will enable restoration of economic growth. One way of doing so, is to establish a more favorable business climate for the foreign investors in order to attract foreign direct investment (hereinafter: FDI), which can further open the borders to the international markets and increase export, reduce unemployment and increase productivity.

Macedonia is an example of such an economy. Macedonia has been able to preserve macroeconomic stability and boost growth by increasing competitiveness and attracting FDI. In 2015, Macedonian's gross domestic product (hereinafter: GDP) growth remained robust at 3.8%, despite the political turmoil in the country. Macedonia's relatively strong growth performance is the result of growing FDI financed exports and a pickup in domestic demand, particularly public investments. The inflation was steady, averaging 2.3% per year over the past 10 years. The country has made substantial improvements in decreasing the unemployment rate from 37.3% in 2005 to 26.1% in 2015.

In recent years, the Government has implemented key reforms with the purpose of ameliorating the business climate and competitiveness, strengthening the registration and permit systems, property registration procedures, investor protection, and tax collection. Structural reforms that supported the industrial zones helped promote Macedonia as a foreign investment destination. Foreign investments inflows averaged 3.8% of GDP per year between 2006 and 2015. However, overall FDI is significantly below the regional average of 7.6%, due to the costly incentives, including tax exemptions, offered by the Government.

The main goal of the master thesis is to examine the relationship between firm performance and ownership in Macedonia in order to identify the most important differences in firm behavior. More in detail, the purpose is to investigate the relationships between (1) ownership and firm performance in general, to see whether firms differ in overall performance measures (for example sales growth, employment growth, etc.) and then (2) to investigate the differences in the potential causes of performance differentials. This means that I will investigate the links between ownership and innovation and the relationship of ownership with innovation resources, focusing on human capital investment and access to finance.

There are a couple of limitations connected to the research. Namely, the sample for foreign companies is much smaller than that for domestic companies. Thus, the responses gathered from domestic companies might be more relevant and give clearer picture on how they operate. Contrary to this, even though I was able to make some conclusions about the foreign companies, the credibility of the research will be higher if the sample was bigger. Next, the results cannot be summarized on a yearly basis since the survey is conducted in two rounds throughout the period of 2007 to 2013, thus making it hard to follow the year by year changes. Finally, the nature of the gathered data is more convenient for running non-parametric tests which are usually less powerful since they preserve information about the order of the data, but discard the actual values.

However, this research reveals the bigger picture about the FDIs in Macedonia. This being said, it contributes to the knowledge and awareness of the impact FDI has on the Macedonian economy. More specifically, it examines the relationship of ownership with innovation and innovation resources. At the same time, it confirms or neglects the broadly accepted “beliefs” about FDI. Nevertheless, there is still a lot that needs to be investigated. One of the directions in which this research can further develop is towards performing a cost/benefit analysis to see whether the investment incentives are worth giving in order to attract FDI.

The thesis is structured in two main parts, the first focusing on literature review and the latter presenting the empirical research. To begin with, a definition and different types of ownership will be presented in chapter one. In this context, also the significance of FDI, as a source of foreign ownership, will be studied, as well as the role FDI has in the developing economies. Chapter two will continue with the discussion of differences in firm performance by ownership by providing an overview of different opinions of scholars, complimented with existing empirical studies on the topic. The third chapter will present the economic overview of Macedonia and the current state of FDIs. More specifically, investment incentives will be elaborated in more detail. Chapter four will present the research questions, the methodology and the descriptive statistics of the data. In chapter five, differences in firm behavior will be identified as well as causes of the differences. The chapter will end with hypothesis testing and results. The thesis will finish with conclusion in which key findings will be summarized.



## 1 DEFINITION OF OWNERSHIP

According to the Collins Dictionary of Law (n.d.), ownership presents “the full and complete right of dominion over property.” At its extreme point, ownership presents the power to enjoy and dispose of things absolutely, although in almost every society, the general law imposes power limitations. Thus, ownership is often considered to be the ultimate residual right that remains after all other rights over a thing have been extinguished.

As stated in the Business Dictionary (n.d.), ownership presents “the ultimate and exclusive right conferred by a lawful claim or title, and subject to certain restrictions to enjoy, occupy, possess, rent, sell, use, give away, or even destroy an item of property. Ownership may be corporeal (title to a tangible object, such as a house) or incorporeal (title to an intangible object, such as a copyright, or a right to recover debt). Possession (as in tenancy) does not necessarily mean ownership because it does not automatically transfer title.”

In The People's Law Dictionary (n.d.), ownership is defined as “legal title coupled with exclusive legal right to possession”. In A Law Dictionary (n.d.), ownership is defined as “title to property and the right by which a thing belongs to someone in particular, to the exclusion of all other persons.”

Moschandreas (2000, p.320) states that “the term ‘ownership’, in the context of a firm, simply refers to a set of rights which can be assigned to any individual or group of individuals participating in the affairs of a firm. There are two formal rights that define ownership: the right to monitor and direct the use of resources and the right to receive the residual earnings of the firm. This being said, the individual or the group of individuals who acquires these two rights is the owner of the firm. When these rights are not displayed ownership is absent.” In Ownership of the firm, Hansmann (1988, p.269) emphasizes the importance of the reference to “formal” rights. He states that “often the persons who have the formal right to control the firm- which typically takes the form of the right to elect the firm’s board of directors- in fact exercise little effective authority by these means over the firm’s management. It is sometimes said that the owners of such firms do not “control” them- hence the familiar references to the separation of ownership and control.”

Although often the legal owner and the economic owner are the same person, they can also differ. In the latter case, the legal owner is the person who owns the asset or good in question i.e. the person recognized by the law, whereas the economic owner is another person who enjoys control over the asset and ultimately benefits from its use. For example, a MNE could finance the working capital or fixed assets of a third party contract manufacturing enterprise (hereinafter: CME) that gives some kind of services to the MNE. In this case, the legal owner is the CME, while the economic owner could be the MNE that bears the risks and benefits from the returns of the CME (EC, IMF, OECD, United Nations, & World Bank, 2008).

## 1.1 Type of ownership by source

When talking about ownership, two different aspects about ownership types arise. First, defining ownership type based on the owners' type i.e. the origin of capital, and second, defining ownership type according to the current firm registration form.

There are three main types of ownership by owners' type:

- **Domestic ownership** refers to the complete or majority ownership/control of a business or resource in a country by individuals who are citizens of that country, or by companies whose headquarters are situated in that country.
- **Foreign ownership** is “the state of being owned by a person or company from another country” (Cambridge Business English Dictionary, 2011, p.352).
- **State ownership** (also called government or public ownership) refers to property interests that are vested in the state or a public body representing a community as opposed to an individual or private party (Clarke & Kohler, 2005).

## 1.2 Legal forms and ownership

The Trading Company Law in Macedonia regulates the foundation of companies as distinct legal entities which operate autonomously and are different from their founders, managers and shareholders. Regarding the type, companies have their own names, registered offices, liabilities, and rights. The Trading Company Law governs the creation, operation, conversion and completion of companies in the Republic of Macedonia.

According to the Trading Company Law, both Macedonian and foreign entities can set up the following types of business forms:

- **General partnership** (Mac. *Javno Trgovsko Društvo- JTD*) is an association of two or more legal entities or individuals who are personally and jointly liable without limit and with their entire property to the creditors.
- **Limited partnership** (Mac. *Komanditno Društvo- KD*) is a partnership of two or more entities or individuals in which at least one of the partners shall be jointly liable without limit and with his entire property and at least one partner who is liable up to its recorded contribution in the company for the obligations of the company.
- **Limited Liability Company** (Mac. *Društvo so Ogranicena Odgovornost- DOO*) is a company in which the shareholders participate with one share each in the company's pre-determined basic capital. The basic contribution may differ in value and the shareholders are not liable for the obligations of the company. The maximum number of shareholders that can establish this type of company is 50. In cases when there is only

one shareholder, the company is called **Limited Liability of One Person Company** (Mac. *Društvo so Ogranicena Odgovornost na Edno Lice- DOOEL*).

- **Joint-Stock Company** (Mac. *Akcionersko Društvo- AD*) is a company in which the shareholders participate with one or more shares and they are not liable for the company's obligations. A joint-stock company can have one or more shareholders.
- **Limited Partnership with shares** (Mac. *Komanditno Društvo so Akcii- KDA*) is a company in which the basic capital is incorporated by one or more general partners, who are liable jointly without limit and with their entire property for the company's obligations. Limited partners have the status of stockholders and are liable up to their recorded contributions in the company, but not for the company's obligations.
- **Sole Proprietor** (Mac. *Trgovec Poedinec- TP*) is an individual that conducts business and it is fully and unlimitedly liable with all his assets to the creditors.

## **2 FOREIGN OWNERSHIP, FIRM PERFORMANCE AND DEVELOPMENT**

Developing countries find FDI inflows as an important sources of finance. Because of the big increase of the capital international flows in recent years, the question of the possible effect of FDI on firm performance has reached higher levels of interest by many scholars and economic researchers. Each country has posed the issue of FDI among top-priority ones, in order to create more favorable business climate which ultimately will result in higher attractiveness of foreign participants in the host economy.

Although there are studies which confirm that the presence of foreign ownership in a company increases its performance (Gurbuz & Aybars, 2010), FDI as such cannot be perceived as a solution for country's problematic legal framework and the institutional environment (Svejnar, 2002).

### **2.1 Sources of foreign ownership and the role of FDI (including the study of causes for FDI decision)**

#### **2.1.1 Sources of foreign ownership**

Foreign ownership is directly connected to foreign or international investments. International investments can be in a form of: commercial loans, official flows, foreign direct investment (FDI), and foreign portfolio investment (hereinafter: FPI).

A **commercial loan** mainly takes the form of a bank loan and it can be established between countries or companies that operate in different countries. Although the investment may be made by an individual, it would normally occur between larger organizations. The loan

however, does not result in ownership by default, though in some more extreme situations, it might.

**Official flows** are mainly in a form of development support that developed countries transfer to developing ones. In these cases, a more developed country makes investment in a less developed one. A beneficiary country of an official flow investment will customarily accept financial assistance. Other than this, a high profile technology and aid in economic management are common forms of official flows.

**Foreign portfolio investment (FPI)** occurs when foreign companies or individual who has mutual funds make investments. Investment instruments, like stocks and bonds, are normally exchanged in FPIs since they represent easily traded instruments. In case of a FDI, the company that makes the investment can own shares of the subsidiary company. Contrary to this, a company that has stocks and bonds from a foreign company does not necessarily have a share in that company.

**Foreign direct investment (FDI)** is an investment made by investor who has a long term interest in a company located in another country. More specifically, the investment ranges from construction of completely new factory or modification of an existing one, to investments in equipment, plants, or property. FDI encompasses all types of capital contributions, where reinvestments of earnings and funds relocation between a parent company and its foreign subsidiary or branch account for considerable part of FDI calculations.

Foreign ownership mainly arises from the last two types of international flows, i.e. FPI and FDI. A FDI is an investment in the form of a controlling ownership in a company in one country by a company located in another country (Financial Times Lexicon, n.d.). Therefore, it is distinguished from FPI by a notion of direct control. Precisely because of the fact of whether the investor has control over the investment or not, the research focuses on FDI since it applies direct control over the company and its daily operations. Thus, it is easier to investigate the relationship of ownership and firm performance which is the main goal of this thesis. Moreover, FDI presents the main source of foreign investments in Macedonia compared to FPI which presents insignificantly small portion of total foreign investments in Macedonia (Figure 1 in Chapter 3).

### **2.1.2 Role of FDI in developing countries**

FDI has long been perceived as an important engine for country's economic growth. Thus, the impact of FDI on company's behavior has been a subject of discussion by many scholars and economists for a long time. The most challenging issue set in many economic studies is the impact and the effect yielded by FDI on firms' performance and consequently on the

economy as well. As a result of these studies, it is generally perceived that FDI has a pivotal contribution for business development and economic growth, especially in developing and transition countries (Görg & Greenaway, 2004).

FDI is very important for developing countries, since:

- facilitates technology transfer and organizational know-how, leading to increased productivity;
- assists human capital formation and labor development;
- provides access to international capital markets;
- helps towards achieving trade integration on international level;
- supports the creation of more competitive business climate.

Djankov and Hoekman (2000) state that FDI has positive influence on technology transfer which is also statistically significant. They established that firms with foreign capital have the highest growth level in total factor productivity, whereas firms with no foreign participation manifest the lowest growth level. Blomström and Sjöholm (1999) find that firms with foreign capital have higher labor productivity compared to purely domestically owned firms. Similar advantages may emerge when the high-level managerial expertise of a foreign subsidiary triggers competitors and local intermediaries to enhance their own managerial capabilities (Hill, 2000).

Diverse professional skills gained as a result of foreign investments may result in substantial gains for the host countries. Namely, FDI has significant impact on the workforce through alterations in employment and wage composition (Baldwin, 1995) and creation of human capital formation by improving the employee's skills in host countries through training, teaching and labor turnovers from foreign to domestic firms (Kapstein, 2001; Ritchie, 2002; Miyamoto, 2003). Valuable spin-off impact also occurs when local employees, skilled with the appropriate expertise for managerial, technical and financial positions in a foreign subsidiary, abandon the firm and get involved in setting up new local firms (Hill, 2000).

In general, international companies invest in lengthy projects, by bearing risks and repatriating profits solely when the projects yield returns (Hill, 2000). Many economists find the free flow of capital useful because it grants investors the opportunity to undertake projects that have the highest rates of return. Moreover, the global integration of international capital markets can assist the adoption of the most effective procedures in corporate governance by standardizing the accounting guidelines and law regulations. This can further help to restrain the ability of governments to take advantage of poor laws and regulations (Feldstein, 2000).

The progress of countries and their approach towards economically developed-nation status enables their further integration into the global economy. There are two main factors that influence the trade integration: the development of international networks of related companies and the increasing importance of foreign subsidiaries in company's strategies for distribution, sales and marketing (OECD, 2002). In the economic literature, export growth is often associated with trade liberalization and FDI is considered as vital engine for export growth in developing countries (Balasubramanyam et al., 1996). By providing the export distribution networks and the information needed to enter foreign markets, FDI can establish a niche for domestic firms to export on those markets as well (Markusen & Venables, 1999).

The presence of foreign companies may greatly assist economic development by spurring domestic competition and ultimately leading to higher productivity, efficient resource allocation and lower prices. Increased competition tends to stimulate capital investments by firms as they struggle to keep pace with their competitors (OECD, 2002). Julius (1990) also states that the increased international flows of FDI should be encouraged since they stimulate growth through more efficient production and they lower prices through greater competition.

All of the conditions mentioned above trigger higher economic growth, which acts as the most powerful instrument for reducing poverty in less developed nations. However, the gains are not just from economic nature. This being said, FDI may also contribute to the enhancement of environmental and social conditions in the host country by implementing "cleaner" technologies and adopting more socially responsible corporate policies (OECD, 2002).

### **2.1.3 Factors that affect FDI**

A company's decision to perform a foreign direct investment can substantially influence the company and the host country and it usually requires a large capital commitment. Firms undertake this kind of action for different kinds of reasons, including the expansion of global markets and the global economy as attractive incentives for such investments.

There is a large number of indicators in the literature that have been confirmed to explain FDI. Many of these indicators take part in hypotheses testing or theories of FDI, while others are recommended because they provide logical explanation. Most of the indicators applied in empirical studies are included in the United Nations Conference on Trade and Development's (hereinafter: UNCTAD) (1998) classification of determinants of inward FDI (Table 1).

Table 1. Host country determinants of FDI

Host country determinants	Type of FDI classified by motives of TNCs	Principal economic determinants in host countries
<p>I. Policy framework for FDI</p> <ul style="list-style-type: none"> <li>• economic, political and social stability</li> <li>• rules regarding entry and operations</li> <li>• standards of treatment of foreign affiliates</li> <li>• policies on functioning and structure of markets (especially competition and M&amp;A policies)</li> <li>• international agreements on FDI</li> <li>• privatization policy</li> <li>• trade policy (tariffs and NTBs) and coherence of FDI and trade policies</li> <li>• tax policy</li> </ul>	<p>A. Market-seeking</p>	<ul style="list-style-type: none"> <li>• market size and per capita income</li> <li>• market growth</li> <li>• access to regional and global markets</li> <li>• country-specific consumer preferences</li> <li>• structure of markets</li> </ul>
<p>II. Economic determinants</p>	<p>B. Resource/asset-seeking</p>	<ul style="list-style-type: none"> <li>• raw materials</li> <li>• low- cost unskilled labor</li> <li>• skilled labor</li> <li>• technological, innovatory and other created assets (e.g. brand names), including as embodied in individuals, firms and clusters</li> <li>• physical infrastructure (ports, roads, power, telecommunication)</li> </ul>
<p>III. Business facilitation</p> <ul style="list-style-type: none"> <li>• investment promotion (including image-building and investment-generating activities and investment-facilitation services)</li> <li>• investment incentives</li> <li>• hassle costs (related to corruption, administrative efficiency, etc.)</li> <li>• social amenities (bilingual schools, quality of life, etc.)</li> <li>• after-investment services</li> </ul>	<p>C. Efficiency-seeking</p>	<ul style="list-style-type: none"> <li>• cost of resources and assets listed under B, adjusted for productivity for labor resources</li> <li>• other input cost, e.g. transport and communication cost to/from and within host economy and costs of other intermediate products</li> <li>• membership of a regional integrations agreement conducive to the establishment of regional corporate networks</li> </ul>

Source: UNCTAD, *World Investment Report: Trends and determinants*, 1998, p.91, Table IV.1.

**Market size.** Market size, measured by GDP or GDP per capita, appears to be the most vigorous factor for attracting foreign investment, with GDP being the only indicator that always has a positive and statistically significant relationship with FDI per capita (Artige & Nicolini, 2005). Pärletun (2008) confirms that the variable GDP is positive and statistically significant at less than 1% and that the enlargement of market size tends to trigger the attraction of FDI to the economy. Ang (2008) finds that real GDP has a significant positive

impact on FDI inflows compared to GDP growth rate which exercises a small positive impact on inward FDI.

Jordaan (2004) finds that FDI will shift to countries with larger and expanding markets and greater purchasing power, where companies can have the opportunity to collect a higher investment rate of return and thus, receive higher profit. Moreover, Charkrabarti (2001) asserts that market size has been the most accepted determinant of FDI and that a large market is imperative for utilizing economies of scale and obtaining resource efficiency.

On the contrary, Asiedu (2002) argues that market size is not a determinant of FDI for a developing country due to low income. Akin (2009) broadens this research topic and concludes that the small market size, due to the abovementioned argument, is related with non-market seeking FDI activities. He affirms that, both population and GDP, are crucial for market seeking FDI activities in developing countries. More specifically, foreign investors will more likely direct their investments in regions with high purchasing power rather than expanding through the country.

**Openness.** Charkrabarti (2001) and Asiedu (2002) both use the ratio of exports plus imports to GDP as a proxy of openness to trade in determining FDI. However, Charkrabarti (2001) argues that although there is no clear indication regarding the importance of openness as determinant of FDI, openness to trade is most likely to be positively correlated with FDI among other variables classified as fragile, and Asiedu (2002) comes to similar conclusions. The maintained hypothesis is: a relevant factor in firm's decision making should be the country's openness to international trade, since most investments are aimed at the tradable sector.

Furthermore, the type of investment defines the impact of openness on FDI (Jordaan, 2004). Namely, when imposing trade restrictions, countries become less open and this can result in positive impact on FDI, especially when the investments are market-seeking. Trade restrictions increase the trade tariffs, which results in higher costs for foreign companies that look to enter a local market by importing their products and instead decide to setup subsidiaries in the host country. Contrary to this, multinational companies that are export-oriented might choose to invest in economies with higher level of openness, mainly because of the high transaction costs related to exporting due to trade protection.

**Labor Costs and Productivity.** Labor costs are regularly among the key economic variables when evaluating the determinants of investment location decisions of companies (Havlik, 2005a). Bellak et al. (2008) explain that the investment location choice appears to be labor cost driven and productivity driven too, with a major accent of total labor costs due to the larger statistical significance. This strengthens the argument that in cases when labor costs are high, they act as a restraint to FDI. The findings suggest that both higher labor costs and



total labor costs have negative impact on FDI, while higher labor productivity positively affects the FDI. Moreover, rigid labor standards are less attractive due to the negative impact of firing cost on FDI (Hunady & Orviska, 2014).

**Political Risk.** The political risk emphasizes the level of uncertainty related to different decisions made by political institutions, such as governmental and legislative agencies (Luo, 2009). Placing political risk on the list of FDI determinants is rather volatile since the relationship between political instability and FDI flows is vague. The research shows that on some occasions political risk can negatively influence the FDI inflow, and in other cases it does not impact it at all. For instance, Hausmann and Fernandez-Arias (2000) and Jaspersen et al. (2000) find no relationship between FDI and political risk whereas Krifa-Schneider and Matei (2010) prove that political risk is positively associated with FDI at 5% level of significance. Demirhan and Masca (2008) conclude that in general, the company will continue with its investments as long as it is able to run the business profitably without endangering its capital and personnel.

**Growth.** The literature presents conflicting evidence and contradictory theoretical explanations regarding the role of growth in attracting FDI. Charkrabarti (2001) emphasizes that the growth hypothesis established by Lim (1983) explains that a fast growing economy brings better opportunities for making profits compared to the ones growing slowly or not growing at all. Iamsiraroj and Doucouliagos (2015) find that growth is positively correlated with FDI in all regions, though the level of association can be different. They also conclude that economic growth has a moderate effect in attracting FDI and that this association has not diminished over time. Moreover, they state that foreign investors are not interested only in the direct economic growth experience, but also in the conditions for future economic growth, mainly present through tax rates and previous period's economic growth rate.

**Infrastructure.** Infrastructure involves a number of parameters, including ports, roads, train stations, telecommunication systems and institutional development. According to Jordaan (2004), a well-built infrastructure network with superior quality boosts the investment potential and therefore triggers FDI flows into the country.

The Overseas Development Institution (1997) shows that, on one side poor infrastructure can be perceived as an obstacle, while on the other as an opportunity for investment projects. Although in low-income countries a bad infrastructure presents constraint, foreign investors might find it as potential for stimulating substantial investments, especially when a more considerable foreign participation in the infrastructure sector is allowed by the government. However, the evidence shows that different infrastructure projects have different levels of attractiveness. Namely, airlines and telecommunications attract more FDI, while other more basic infrastructure, such as rail or road construction, stays unappealing due to high political risks and low rate of return of such investments.

**Tax.** The literature shows doubts regarding whether FDI responds to tax incentives. In general, low or competitive rates of corporate taxes act as an incentive for foreign investors—the prospect of having to pay a smaller proportion of taxes reduces cost of production (O'Meara, 2015). Therefore, some studies show that host country corporate taxes have a significant negative effect on FDI flows. Contrary to this, other studies show no evidence that higher corporation tax rates reduce the level of inward FDI (O'Meara, 2015). Moreover, other results suggest that there is no statistically significant relationship of corporate taxes and FDI (Hunady & Orviska, 2014). All in all, it appears that fiscal incentives in the form of corporate taxes may be beneficial for some countries, though not for all. An example of the latter scenario is present in the CEE countries where various studies show that corporate income tax rate is not a significant determinant of FDI (Carstensen & Toubal, 2004).

Moosa (2005) discusses that due to lack of consensus on a theoretical framework to guide empirical work on FDI, there is no widely accepted set of explanatory variables that can be considered as the “true” determinants of FDI. Moreover, the direction of the impact of abovementioned determinants on FDI may be different. For instance, factors, such as trade balance, labor costs, growth and tax, are used in many empirical studies as explanatory variables and it is found that all of them have positive as well as negative impact on FDI.

## **2.2 Ownership and firm performance: Literature review**

The relationship between ownership and corporate performance has been a standing debate for a long period. Conventional thinking has it that foreign companies are more efficient compared to domestic ones in emerging markets and over time manage to dominate the latter in the competitive arena. This argument comes from the assumption that foreign owned companies are better resource-equipped in terms of capital, technology, management practices, and brands. Therefore, these companies dispose with unique capabilities in the creation of new products and services which ultimately results in customer loyalty to such brands (Pai & Hiremath, 2013).

However, the influence of foreign ownership on companies' performance can be different and it usually depends on country's level of development. Namely, earlier and recent studies have shown that foreign ownership positively impacts the performance of the company in developed countries which is not always the case for the companies in developing and emerging economies.

Alan and Steve (2005) examined the short and long term performance of United Kingdom's corporations acquired by foreigners. The results show substantial positive returns on firms' performance. Piscitello and Rabbiosi (2005) extended the study to Italy. The findings from the ordinary least squares (OLS) regression analysis reveal that acquisitions improve the target firms' performance in the medium term mainly as a result of the transfer of ownership

benefits as well as the participation of broader international network. Barbosa and Louri (2005) find that foreign ownership has a positive and statistically significant impact on firms' profitability in Greece, measured by gross return on assets (hereinafter: ROA). Gedajlovic et al. (2005) assess the influence of ownership on firms' results and investment decision-making in manufacturing industries in Japan. The results show that foreign ownership, which is approximated by the percentage of outstanding shares held by foreign investors, is positively and significantly related to dividend payout. Moreover, they infer that foreign ownership is negatively and marginally significant to capital expenditures. However, no relationship is observed between foreign ownership and ROA, where ROA is taken as an indicator of profitability.

Konings (2001) conducted a study to investigate the effects of FDI on firms' productivity performance in three developing economies: Bulgaria, Romania and Poland. The results show that foreign companies in Bulgaria and Romania do not perform better than domestic companies, opposite to Poland where they do perform better. The reason for this might be the time lag necessary for foreign ownership to have some impact on performance. Khawar (2003) ran a research on Mexican manufacturing companies and found that foreign companies are more productive than domestic ones, because of indication of the presence of a strong foreign ownership on the productivity of individual firms. Douma et al. (2002) conducted a research in India where they tested the foreign ownership effects on firms' performance by using regression method. The results showed that foreign ownership positively affects firms' performance in developing countries.

As the abovementioned studies illustrate, the impact of foreign ownership on firms' performance can be different in both developed and developing countries. Some of the reasons for these discrepancies are the large number of methodological issues and the different levels of countries' absorptive capacity which potentially lead to conflicting results. However, there is one universal truth that can be concluded from existing empirical research. Namely, Jude and Levieuge (2015) state that the impact of FDI on economic growth is conditional on several local circumstances that are unique for each country. Some of these factors include: the business environment, financial development, human capital, trade openness, or the level of development.

In general, the following reasons are found to be the most important for supporting the argument that foreign companies perform better than domestic companies:

- possess high-profile technology and invest more intensively in R&D and innovation;
- employ more highly-qualified staff and implement continuous employee training programs;
- have bigger access on the international finance market.

Each of the reasons will be elaborated more in depth in the upcoming sections of Chapter 2 (2.2.1 and 2.2.2).

### **2.2.1 Ownership structure and innovation**

Subsidiaries of foreign companies are among the top performers of innovation, research and development in many European Union (EU) and non-EU countries. The high relevance of foreign ownership for technology and innovation policy requires solid understanding of the innovation behavior of foreign owned firms and its impact on economic performance (Dachs & Peters, 2013).

There are many forms of innovation that foreign owned companies can implement in their working, such as: product and process innovation, assimilation of foreign technologies, purchase of new equipment, or introduction of new management organizational practices.

One argument that captured a lot of attention in the business area is that, in general, foreign subsidiaries outperform domestic companies. Many researchers support this argument based on the evidence that foreign subsidiaries possess superior technologies and advanced R&D sectors, which leads to new product and process innovations (Stiebale & Reize, 2011).

Innovation and technology are key areas in which foreign and domestic companies differ. A lot of studies have shown that foreign companies have superior firm-specific assets, invest more often in R&D and hire more highly-qualified personnel than domestic companies (Markusen, 2002; Griffith & Simpson, 2004; Bellak, 2004). Moreover, these two groups also differ in their ability to successfully introduce new products to the market and in their capabilities to create them as well (Sadowski & Sadowski- Rasters, 2006; Dachs et al., 2008). The effects of innovation might be different for foreign and domestic companies because both groups differ in essential firm-specific innovation characteristics related to product and process innovation. Namely, foreign companies have superior firm-specific assets, such as technologies, knowledge, distribution networks, or brands, whereas these assets might not be present at all in domestically owned firms (Dunning, 1981; Markusen, 2002; Helpman et al., 2004). Organizational practices and managerial capabilities are also present on the list of these assets (Bloom & Van Reenen, 2010).

The parent company can transfer its firm-specific assets to its affiliates. Namely, MNE affiliates and subsidiaries are embedded in intra-firm networks of knowledge exchange in different countries (Gupta & Govindarajan, 2000; Williams & Lee, 2009; Zanfei, 2000). Learning from the experiences of the parent company and its subsidiaries in other countries gives foreign owned affiliates an advantage when it comes to creating new products and implementing process innovations. For example, a new, improved production technology of the parent company may be valuable for the foreign affiliate as well. Firm-specific assets

may further enable the affiliate to develop its own innovations based on existing technologies at lower development costs. Furthermore, foreign owned firms may be able to introduce new products more successfully into the market and enjoy higher sales growth from new products. This will lead to higher employment growth from product innovations because they can use the experiences the MNE acquired in other countries with similar products and technologies. Firms that are not taking part of a corporate group lack these advantages. Next, large firms, in particular multinationals, can diversify the risks over a larger number of projects, have substantial internal funds for innovation and easier access to external finance for risky innovation projects. Moreover, large companies may take advantage from a higher degree of specialization and a more complex division of labor in research, development and innovation, which is not attainable in smaller firms (Dachs & Peters, 2013).

The lower cost of capital translates into lower innovation costs for the foreign company (Desai et al., 2008; Manova et al., 2011) as well as greater access to proprietary technologies (Antràs & Helpman, 2004), which can potentially lead to even larger innovation benefits. The high levels of innovation by foreign subsidiaries are mainly driven by firms that export through a foreign parent. The access to export markets results in an increase in firm scale for multinational firms. With either lower innovation costs or greater market access under foreign ownership, the surplus created by foreign participation is increasing the initial productivity. This explains the increased innovation for firms under foreign ownership (Guadalupe et al., 2012).

Guadalupe et al. (2012) prove that foreign subsidiaries innovate more than domestic companies because, besides having low innovation costs, they also have more advantages that arise from their existing market scale. They further explain that there is a lack of research that examines the fundamental link between innovation and foreign ownership, or more precisely the increase in market access that comes with foreign ownership.

Many researchers have empirically tested the differences in innovation between domestic and foreign companies (Ebersberger et al., 2005; Dachs et al., 2008), showing that the latter have larger innovation output in terms of sales from new products after adjusting for firm characteristics. On the contrary, innovative input (such as, investment in R&D) is similar or lower for foreign companies, meaning that superior assets may discourage foreign companies to invest in R&D (Un & Cuervo-Cazurra, 2008).

### **2.2.2 Human capital formation and access to capital as innovation resources**

There are a couple of reasons why studies examine the link between FDI and human capital formation: human capital formation is usually perceived as one of the long term benefits of FDI; human capital is important determinant in attracting FDI; and human capital is salient factor of spillovers of FDI to the local industry (Velde, 2002).

The training provided by foreign and domestic companies significantly differs. Smaller, locally owned enterprises outside the capital are less likely to offer employee training programs. While governments may be willing to provide funds for skills transfer at the enterprise level, these funds are usually taken by large foreign owned companies. The implication is that policy makers should prioritize public support for training employees in locally-owned small and medium enterprises (SMEs) rather than in large foreign owned enterprises (Colombano & Krkoska, 2006).

When compared with state ownership, the presence of foreign ownership in a company significantly increases the likelihood of having a training program, by about 15-16%. One reason for this is that the companies that are acquired by foreign investors usually have a training program already in place. Another reason could be that foreign companies have to provide more trainings because the available skills and work practices of the employees usually differ from those in their home countries (Colombano & Krkoska, 2006).

Görg et al. (2002) state that workers, who are employed and trained in foreign owned companies, experience faster wage growth than workers in domestic companies. Namely, the training system is more productive in foreign companies than domestic ones, and therefore personnel trained in the former have steeper wage growth. Moreover, the research conducted by Hijzen et al. (2013) proves the significant gap between average wages and salaries received by workers in domestically owned firms and the workforce under foreign ownership or control.

Another resource necessary for innovation is the capital, or more specifically, the firm's access to finance. Isachenkova and Mickiewicz (2004) show that foreign owned companies can access different span of sources for financing than those available to domestic owned companies. Galindo and Schiantarelli (2002), in their study on investment financing in Latin America, report evidence that firms with foreign ownership are less restricted in their access to finance. Furthermore, Harrison and McMillan (2003) demonstrate that foreign companies are less credit constrained than domestic firms. Foreign companies have easier access to finance because of the greater availability of foreign sources of finance as well as the possibility of direct funding from foreign partners. Moreover, firms with foreign ownership participation are less risky i.e. have less bankruptcy risk, as they more rapidly adopt international standards on product quality, and hence, find it easier to gain access to domestic bank debt (Colombo, 2001; Harrison & McMillan, 2003). However, it should not be generalized that foreign owned companies have easier access to finance than domestic ones, since many researchers could not find a connection between those two variables. For instance, Colombo (2001) finds no significant impact of foreign ownership on access to short-term debt finance for Hungary.

Companies with foreign participation seem unlikely to rely on issue of bonds and equity. That is consistent with a popular belief that domestic capital markets are less important for foreign affiliates. Moreover, companies with some level of foreign involvement are unlikely to rely on government sponsored finance. Finally, in a sharp contrast to the firms with the prevalence of domestic owners, privatized companies with foreign involvement are unlikely to rely on sell-offs on assets in their financing strategies (Isachenkova & Mickiewicz, 2004).

### **2.2.3 Firm-decision making**

There are many studies that investigate the effects of ownership structure on patterns in the generation and allocation of financial resources (Shleifer & Vishny, 1997; Maher & Andersson, 1999). However, the vast majority of research focuses on the relationship between ownership and firm performance and only a small number of studies examine the impact of ownership patterns on the strategic and investment behavior of firms. Consequently, much more is known about the relationship between ownership and performance than about how ownership patterns affect strategic and investment behavior.

One of the reasons for this it that companies change their strategies more often than they used to in the past due to the faster pace that the globalization brings. Companies constantly need to readjust their action plans because of many internal and external factors that influence their working. Therefore, it makes it more difficult to recognize the reasons for the changes, whether they are connected to firm-specific characteristics or they simply have to modify their plans according to the external environment.

## **3 ECONOMIC OVERVIEW AND FDI IN MACEDONIA**

### **3.1 Economic performance of Macedonia**

After Macedonia's independence, the Macedonian economy faced with a loss of a big and secured market, which manifested in sharp decline in GDP. This resulted in economic downfall with high inflation, large fiscal deficits, and almost no foreign investment.

In 1994, the Government launched and successfully enforced a stabilization program that later on proved to be of major importance for the Macedonian economy since it managed to achieve macroeconomic stability by the end of 2000; the fiscal balance registered a significant surplus for the first time, and inflation stayed modest. However, this upward tendency in the economy came to a sudden end with the conflict of 2001, which interrupted the otherwise sluggish recovery. GDP was reduced by more than 4%, the balance of payments and the fiscal balance deteriorated severely, and reforms were obstructed. The main reforms undertaken in the period prior to the civil conflict and how they were developing in the years to follow are presented in Table 2.

Table 2. Main reforms in Macedonia for the period of 1999-2012

<b>Year</b>	<b>Reform</b>	
1999	Liberalization	-promotion of enhanced economic relations and free trade; -pricing policies for agricultural products have been reformed;
	Stabilization	-tight fiscal policy and pegged exchange rate in relation to the Deutschmark; -introduction of value-added tax (VAT) in 2000;
	Privatization	-by 1999, liquidation or sell-off of large enterprises that were making continuous loss; -extension of the privatization program to socially owned enterprises in agriculture until the end of 2000;
	Enterprises	-the government drafted new competition law, but it did not pass the Parliament; -amendments to the privatization law to facilitate foreign investment; -extremely slow implementation of new bankruptcy procedures;
	Financial sector	-delays in the privatization process of the largest bank Stopanska Banka; -rehabilitation programs were enacted for some banks with weakened financial conditions; -stock exchange activity increased rapidly, but remained at a rather low level;
	Infrastructure	-in search for strategic investor for national telecommunications company;
	Social reform	-the Kosovo conflict resulted in worsened poverty situation
2008	Business environment and competition	-introduction of reduced and simplified taxation and customs reform; -introduction of simple processes for elimination and simplification of regulations; -establishment of “one-stop shop” system; -improvements of the new law on real estate cadaster;
	Infrastructure	-reforming electricity tariffs and tariff methodology;
	Financial sector	-the banking sector continues to be well capitalized while increasing the foreign bank presence;
2010	Enterprises	-continued efforts to make property rights more clear and to speed up the reform process in the judicial system;
	Infrastructure	-the key priority was to ensure that the energy and transport sectors can function effectively in order to achieve greater competition and efficiency in the delivery of services;
	Financial sector	-to enable and facilitate consolidation of the financial sector and to provide larger pool of different financial products;
2012	EU reform	-European Commission launched a High-Level Dialogue to accelerate reforms in main policy areas;
	Privatization	-although privatization is almost accomplished, some of the remaining state-owned enterprises are yet to be privatized due to failed negotiations;
	Doing business	-significant progress was achieved in acquiring construction permits, property registration and credit accessibility;

table continues



Table 2. Main reforms in Macedonia for the period of 1999-2012 (continued)

Enterprises	-significant increase in new foreign direct investments;
Infrastructure	-restructuring of the railways sector is ongoing;
Financial sector	-the financial sector continues to lack competitiveness in comparison to neighboring countries;
Pension reforms	-pension fund assets increased sharply due to the introduction of two voluntary funds.

Source: EBRD, *Transition report: Ten years of transition*, 1999, p.218-219; EBRD, *Transition report: Growth in transition*, 2008, p.124; EBRD, *Transition report: Recovery and Reform*, 2010, p.124; EBRD, *Transition report: Integration across borders*, 2012, p.113.

GDP growth levels of more than 5% were accomplished in 2006, 2007 and 2008 (Table 3). But, this continuous improvement trend was disrupted because of the global economic crisis that did not leave Macedonia out of its negative impact. This led to a negative GDP growth in 2009 (-0.4%). However, the slump did not last long; namely, in 2011, the industrial production increased for 3% and it continued in 2012 when it achieved 4% increase. This rise was mainly due to the manufacturing sector which accounts for around 75% of the industry.

The economic recovery continued, even though the domestic demand was the sole driver of growth. Namely, GDP growth reached 2.9% in 2013 and the substantial increase continued in 2014 and 2015, with 3.5% and 3.8% accordingly (Table 3). However, this growth cannot be maintained if the domestic demand stays the sole reason for the development, but rather significant improvements have to be made in the domestic private sector in order for it to contribute to the growth and the sustainability of the economy.

Table 3. Macro-economic figures for the Macedonian economy

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
<b>GDP growth</b> (real growth rate %)	4.7	5.1	6.5	5.5	-0.4	3.4	2.3	-0.5	2.9	3.5	3.8
<b>Inflation</b> (average, on cumulative bases, in %)	0.5	3.2	2.3	8.3	-0.8	1.6	3.9	3.3	2.8	-0.3	-0.3
<b>Unemployment</b> (in %)	37.3	36.0	34.9	33.8	32.2	32.1	31.4	31.0	29.0	28.0	26.1

Source: *National Bank of the Republic of Macedonia*, 2016.

The inflation rate has continuously remained around 3% per year until 2007. Yet, in 2008, a sharp inflation of more than 8% was noticed, followed by a deflation rate of 0.8% in 2009. Nevertheless, the level of inflation reached 1.6% in 2010 as a result of the effects of the stable monetary policy and the fading impact of the global crisis. In 2011, due to the bad

economic situation in Europe, and particularly in the neighborhood, the inflation rate increased to 3.9%; however, the level of inflation has been decreasing ever since (Table 3). In recent years, contrary to the fiscal policy, the monetary policy has successfully protected the currency peg and managed to keep the prices stable. Namely, the EUR/Denar exchange rate was kept on the same level for more than 13 years.

Although the unemployment has been continuously decreasing from 37.3% in 2005 to 26.1% in 2015 (Table 3), labor market conditions stayed burdened by structural impediments. By providing public subsidies and undertaking labor market measures, the government managed to create new jobs mainly in low-productivity sectors and agriculture. However, these actions did not properly address the essential structural causes of unemployment. The structure of employment remained focused: around 19% of total employment accounts for jobs in low-productivity sectors and agriculture, and according to some estimations, the public sector represents 20% of total employment in Macedonia. The main challenges remained the low labor market participation (particularly among women), skills mismatches, and limited job opportunities in advanced industrial sectors. The education system would improve by connecting education programs and employers, including foreign investors operating in higher value added sectors. This will also result in improved labor productivity (European Commission, 2015).

The stability of the external sector highly depended on the public borrowing abroad. The current account deficit has been reducing steadily since 2009 and set at a moderate 1.6% of GDP in 2014 (Table 4). This was mainly as a result of advances in the merchandise trade balance, especially by foreign investors in the automobile industry who sell automotive components abroad (European Commission, 2015).

Fiscal discipline failed again in 2014 and 2015 and the government needed to adopt a supplementary budget in autumn 2014 and then again in summer 2015, due to revenue shortfalls as well as premature and more than expected expenses on infrastructure. Although the supplementary budget revised the deficit target upwards, from 3.4% to 3.6% of GDP in 2014, the actual budget deficit was even higher, at 4.2% of GDP. The 2015 deficit target was raised from 3.4% to 3.6% of GDP despite increased revenue projections, but the actual budget deficits reached only 3.5% of GDP (Table 4). These adjustments were accounted for ad hoc increases in spending on pensions and police wages, social benefits, as well as additional budget capital resources required for infrastructure projects. External debt has been continuously increasing throughout the years, from 48.8% of GDP in 2008 to 70.3% of GDP at the end of 2014 (Table 4). This jump was mainly due to an increase in public debt and, somewhat less, in FDI-related intercompany lending (European Commission, 2015).

Table 4. Macro-economic figures for the Macedonian economy

	2008	2009	2010	2011	2012	2013	2014	2015
<b>Government balance</b> (% of GDP)	-0.9	-2.6	-2.4	-2.5	-3.8	-3.8	-4.2	-3.5
<b>Gross external debt</b> (% of GDP)	48.8	55.9	57.8	64.2	68.2	64.1	70.3	69.2
<b>Current account</b> (% of GDP)	-6.9	-12.7	-6.8	-2.0	-2.5	-3.2	-1.6	-0.5
<b>Merchandise export</b> (in million EUR)	2,697.6	1,937.0	2,534.9	3,214.9	3,124.0	3,235.2	3,746.6	4,051.2
<b>Merchandise import</b> (in million EUR)	4,664.4	3,636.8	4,137.1	5,052.9	5,070.6	4,983.3	5,504.5	5,776.9
<b>Trade balance</b> (in million EUR)	-	-	-	-	-	-	-	-
	1,966.9	1,699.8	1,602.2	1,838.0	1,946.7	1,748.1	1,757.9	1,725.7

Source: *National Bank of the Republic of Macedonia*, 2016.

Considering the state of the economic development of the country, the trade openness is relatively high. Since 2009, the exports have been increasing, reaching 4,501 million euros in 2015. The imports have been increasing as well, but with slower pace (Table 4). The EU remained the most important trade partner, by a great margin. In 2014 and 2015, around 77% of total exports were directed towards EU. The imports from the EU were also higher than previous years and reached 63% of the total share of imports. Although the export has diversified throughout the years, it still remained highly concentrated- iron and steel, metal ores, clothing and food accounted for about 40% of all exports in 2014, compared to 56% in 2010. However, due to the increase in production by foreign investors, the composition of exports slightly shifted towards products with higher value added, such as machinery and transport equipment (European Commission, 2015).

The structure of public spending did not get any better. Namely, in 2014, investment accounted for only 10% of the budget. Around 45% of total spending went on social transfers, including public sector wages, pensions and agricultural subsidies, which the government had increased in both 2013 and 2014.

Public infrastructure is still poor and the current conditions of transport and energy infrastructure obstruct economic development. The government has undertaken many large-scale public investment projects in order to face this challenge. This caused total investment volumes to rise sharply in 2013 and 2014, with public projects accounting for about one fifth of total investment in the manufacturing and construction industries. On the contrary, private sector investments remained low (European Commission, 2015).

The sectoral structure of the economy was standing still. Manufacturing accounted for 12% in gross value added in 2014, the same as in 2009. Agriculture's contribution to the economy slightly deteriorated to 10% in 2014, whereas trade and services grew by 4.5% and accounted for almost half of the country's value added. The composition of businesses also stayed the same. Namely, micro-enterprises and small businesses accounted for more than 98% of the total number of companies. However, in the last three years, the number of large companies has more than doubled, mainly due to foreign investments, although their share remained below 1%. Small and medium enterprises provided the bulk of jobs i.e. 80% of total employment (European Commission, 2015).

Currently, Macedonia benefits from a stable macroeconomic environment, supported by sound monetary policy, favorable conditions for market entry, and a sound legal system. The public finance management needs to be further monitored, especially the fiscal targets and the composition of public spending. A progress was made in diversifying the export structure mainly as a result of foreign direct investments. However, the unemployment remains high and it should further decline by increasing the employability of people, in particular the youth, by improving the coordination of what the study programs offer and what is actually needed on the labor market (European Commission, 2015).

There are two main issues that require attention and further improvement. The first issue focuses on the high unemployment rate that remains around 30% in the last years, though it is believed that this number is lower due to the strong presence of informal economy. The government is trying to resolve this problem through the creation of new jobs on the market, by undertaking different employment measures. The second issue is connected with the constantly increasing trade balance deficit which the government tries to resolve through the promotion of investment, especially in export-oriented industries (European Commission, 2015).

### **3.2 Foreign investment in Macedonia**

FDI in Macedonia experienced low levels before 1998, recording less than 10 million dollars in 1995 (Table 5), but from then on it has been consistently increasing. Nevertheless, as a result of the war crisis in 2001, the growth was discontinued and a sharp fall in FDI was noticed, barely reaching 100 million euros in both 2002 and 2003. Many actions were

undertaken for achieving economic and political stabilization, and already in 2004 FDI has recorded an upward trend. In the following years, the investments significantly increased mainly due to privatizations in the energy sector. Moreover, a couple of green-field projects were established in the free economic zones.

Table 5. Summary of FDI in Macedonia

	1995	1998	2004	2008	2009	2010	2011	2012	2013	2014
<b>Direct investments-net</b> (in million USD)	9.5	150.5	323.7	585.8	201.4	212.5	478.8	142.9	334.9	348.1
<b>Direct investments-net</b> (% of GDP)	0.2	4.0	5.7	5.9	2.1	2.3	4.6	1.5	3.1	3.1
<b>Direct investments-net</b> (per capita in USD)	4.8	74.8	155.2	279.1	95.9	101.1	227.6	67.9	158.9	165.1

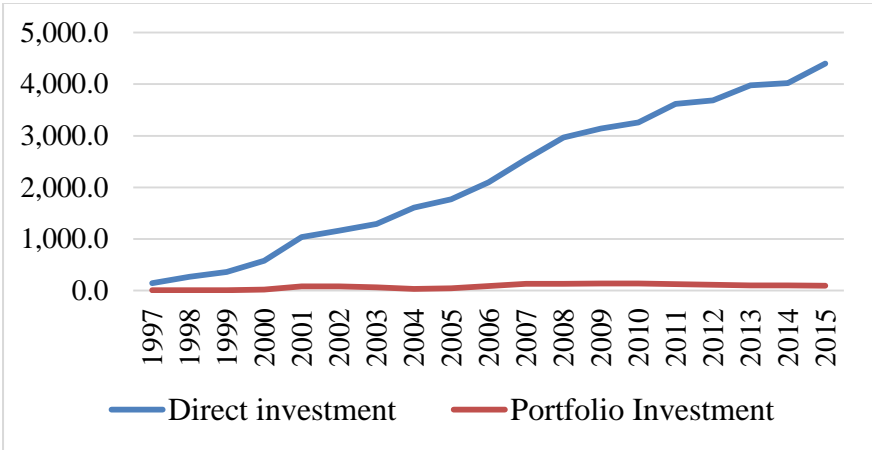
Source: UNCTAD, 2016.

The world economic crisis has impacted the foreign investment flows towards Macedonia, resulting in significant decrease in 2009. Despite the signals of reestablishment of the former investor interest, only a slight increase in FDI was registered in 2010, reaching USD 212 million (Table 5). However, the FDI increased significantly in 2011 compared to the previous two years, but this upward trend was disrupted. Later, the euro zone debt crisis caused a substantial slowdown, resulting in significant fell of FDI from USD 479 million in 2011 to USD 143 million in 2012 (Table 5), mainly due to the outflow of profits of foreign owned companies and intercompany loans. Although a couple of green-field investments have been realized in 2012, they were not large enough to maintain the level reached in 2011. However, in 2013, FDI surged to USD 335 million as the global economy recovered and rose to USD 348 million in 2014 (Table 5), predominately because of some new foreign investments in the Technological–Industrial Development Zones (hereinafter: TIDZs), and supplemental investments by current foreign investors. Nevertheless, despite the numerous infrastructure projects in 2014, the FDI inflows (3.1% of GDP) stayed below their 10-year average (4.3% of GDP). In 2015, FDI slowed to USD 178 million, possibly due to internal political turmoil (U.S. Department of State, 2016).

Most of the FDI in the Macedonian economy comes from EU companies. Their share of total FDI stock reached 83% in 2014. The demand for import, which was mainly related to investment, also increased. The biggest FDI were directed towards the automotive parts industry. The upturn of foreign trade, both on import and export side, was in large part accounted by the development actions in the TIDZ. Despite the fact that the global economic

crisis restricted the funds available for investment, the country’s ability to attract FDI deteriorated even more due to law burdens, corruption and obstructed Euro-Atlantic integration. By most indicators, the level of FDI in Macedonia is the lowest compared to other countries in the Balkan region. Moreover, the share of FDI in total GDP was only 1.8% in 2015, 1.3 percentage points less than in 2014 (U.S. Department of State, 2016).

Figure 1. Stock of Direct and Portfolio Investment in Republic of Macedonia (1997-2015) - in million EUR



Source: National Bank of the Republic of Macedonia, 2016.

Figure 1 shows the trend in movement in both direct and portfolio investment. Namely, the direct investments notice a gradual upward trend compared to the portfolio investment that remained rather flat throughout the years.

### 3.3 Investment incentives in Macedonia

Although small, but open economy, the Macedonian government takes various measures for attracting foreign investments. Moreover, Macedonia is heavily dependent on FDI for job and export growth, and therefore continues to actively seek for foreign investments that can provide new jobs positions. Besides the equal treatment of foreign and domestic investors, Macedonia also provides additional incentives for foreign investors in order to encourage them even more. Currently, there are five Ministers and the governmental agency Invest Macedonia responsible for promoting the opportunities that the country offers and assisting foreign investors in the process of establishing their businesses and daily operations. The agency employs 25 resident economic promoters in foreign countries who are actively engaged in promoting the benefits of investing in Macedonia. Since 2007, the government has undertaken wide-ranging campaign which involves different promotional approaches such as: promotion of the country in many of the world's leading newspapers, magazines, TV stations, and frequent government-led roadshows. (U.S. Department of State, 2016).

The foreign investment in Macedonia is not regulated by single law, though there is a legal framework that addresses foreign investment in Macedonia. Also, the participation or control of foreign investors in domestic companies is not a subject of restriction by the government. Currently, Macedonia is in the process of adjusting its legal and regulatory systems with international, predominantly European Union, standards in anticipation of EU accession (U.S. Department of State, 2016).

Government incentive packages for foreign investors are not fully available to the Parliament or the public. Because of this, many citizens have come to believe that foreign investors get better treatment than domestic companies. As mentioned before, there are no laws or legal regulations that would officially deter foreign investment in Macedonia. Moreover, obstacles remain for both foreign and domestic companies. Namely, exorbitant bureaucracy still causes problems in all areas of government administration, providing excuses for inefficient administrative processes and unethical behavior. Also, the judicial system lacks to convey homogeneous and reliable use of the law. Unfortunately, cases of unproductive practices and corruption are still present in Macedonia (U.S. Department of State, 2016).

Macedonia offers large number of attractive incentives for potential investors, despite its modest and small-sized domestic market (PwC Macedonia, 2012):

- Macedonia has an advantageous strategic geographical position and provides access to 2 main European transport corridors (8 and 10), international airport and railroad;
- Macedonia has a highly-liberalized foreign trade policy and has negotiated numerous bilateral agreements that provide local contractors free access to EU and other markets;
- Macedonia has stable monetary system with a stable currency and low level of inflation in comparison to the countries in the region;
- Investors in Macedonia enjoy the benefits of a very favorable tax environment with a corporate income tax rate that is among the lowest in Europe;
- Macedonia has a highly-skilled and educated workforce, available at competitive labor costs that are among the lowest in Europe;
- Macedonia works by the highest standards in its corporate governance and reporting and it has already introduced a significant number of the European Union standards on competition, state aid, public procurement, product standards and many others.

I would like to separate the following metrics as the biggest investment incentives in Macedonia for foreign investors:

- Lowest tax rate in Europe;
- Competitive labor costs;
- Tax Free Economic Zones.

**Tax.** Macedonia has a 10% flat rate for corporate and personal income tax purposes. Investors are eligible for reduction in the profit tax base by the amount of prior profit reinvested in tangible assets (facilities, equipment and real estate) and intangible assets (patents and software) that are being used for growing the business (KPMG Macedonia DOO, 2016).

**Labor.** Macedonia has highly-qualified and well-educated labor force that is available to foreign investors. Educational standards at university level in Macedonia resemble those of the Western countries. However, the wages in Macedonia are tremendously bellow those in Western Europe, creating a significant upside potential for labor intensive investments. Namely, the average monthly gross wage paid per employee in Macedonia in August 2016 was 32,789 denars (approximately 530 euros), while the average monthly net wage paid per employee in August 2016 amounted to 22,294 denars (approximately 360 euros) (State Statistical Office of Republic of Macedonia, 2016).

**Tax Free Economic Zones.** Besides the regularly promoted stimulus, Macedonia provides extra motivation for development in the TIDZs. These incentives include (PwC, 2011):

- 0% personal and corporate income tax for the first 10 years (10% thereafter);
- Allowance of up to half million euros for construction costs;
- No fee for preparation of the construction site;
- Attractive concessionary rates for land leasing for up to 99 years;
- Reduced set-up costs due to fast procedures for business activity registration;
- Free connection to utilities;
- No VAT and customs duties for export production;
- Introduction of Green Customs Channel.

## **4 RESEARCH**

### **4.1 Research questions**

The main purpose of the master thesis is to examine the relationship between firm performance and ownership in Macedonia with the goal to identify the most important differences in firm behavior. First, I will investigate the relationship between ownership and firm performance to see whether firms differ in overall performance measures, or more specifically I will test whether ownership influences the sales growth and employment growth in companies in Macedonia. Next, I will investigate the differences in the potential causes of performance differentials. This means that I will investigate the links between ownership and innovation on one side, and the links between ownership and innovation resources, or more exactly human capital investment and access to finance on the other.



In order to examine the firm behavior based on the ownership structure, the following research questions will be addressed:

- What are the differences between firms' performance, conditional on ownership (foreign vs. domestic)?
- What are the differences in sales growth, employment growth, and investment intensity?

In continuation, to find explanation for potential differences, I will focus on the following:

- What is the relationship of foreign owned companies and innovation compared to domestic companies and innovation? Is there a difference and why? How does the ownership structure influence the decision making for implementing new products/ services?
- Innovation is also related to innovation resources, financial and non-financial.
  - Financial resources. What is the access to finance on the financial markets regarding the ownership of the company? Is it easier for domestic companies to get loans from banks? Are the collateral requirements equal regardless of the ownership type?
  - Human resources. Do the employees in foreign owned companies are included in the decision making and with this encouraged to bring new ideas on the table? Do foreign companies employ more highly educated employees compared to domestic companies?

## 4.2 Methodology and data

For the empirical analysis of the study, the Business Environment Enterprise Performance Surveys (BEEPS) firm-level data is used. The survey is done by the World Bank and the European Bank for Reconstruction and Development (EBRD).

The panel data survey was conducted in two rounds:

- the first round in year 2008 (361 surveys conducted) and 2009 (5 surveys conducted);
- the second round in 2012 (40 surveys) and 2013 (141 surveys).

The total number of conducted surveys in Macedonia is 547 and the results are the following:

- Private domestic individuals, companies or organizations<sup>1</sup> = 493 (90.13% of total surveys);

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<sup>1</sup> Private domestic individuals, companies or organizations are all entities in which more than 50% of the share is domestic

- Private foreign individuals, companies or organizations<sup>2</sup> = 44 (8.04% of total surveys);
- Government/ State=1 (0.18% of total surveys);
- Other=2 (0.37% of total surveys);
- Companies that have 50% domestic and 50% foreign ownership= 4 (0.73% of total surveys);
- Additionally, there are two companies (0.37% of total surveys) out of which, the first has 40% domestic, 17% foreign and 43% government ownership, and the second company has 31% domestic, 18% foreign, 41% government and 10% other ownership;
- One survey is not valid; it does not provide information regarding ownership (0.18% of total surveys).

Since the sample for government and other ownership is very small (one and two conducted surveys, accordingly), no conclusions can be made, therefore they are irrelevant for the study. Also, the companies that have mixed ownership structure and no dominant origin of ownership (no more than 50% of the company is domestic or foreign) will be eliminated from the analysis. The focus will be on domestic and foreign owned companies. After cleaning and preparing the data for analysis, the number of respondents, based on type of ownership, is 537 (98.17% of the total number of respondents), and the dispersion is as follows:

Table 6. Type of ownership

		<b>Frequency</b>	<b>Percent</b>	<b>Valid Percent</b>	<b>Cumulative Percent</b>
Valid	Private <b>domestic</b> individuals, companies or organizations	493	90.1	91.8	91.8
	Private <b>foreign</b> individuals, companies or organizations	44	8.0	8.2	100.0
	Total	537	98.2	100.0	
Missing	Missing data	10	1.8		
Total		547	100.0		

The number of private domestic individuals, companies or organizations (hereinafter: domestic owned companies or domestic companies) is 493 and it represents 91.8% of the valid respondents. The number of private foreign individuals, companies and organizations (hereinafter: foreign owned companies or foreign companies) is 44 and it represents 8.2% of the total number of valid survey respondents.

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<sup>2</sup> Private foreign individuals, companies or organizations are all entities in which more than 50% of the share is foreign

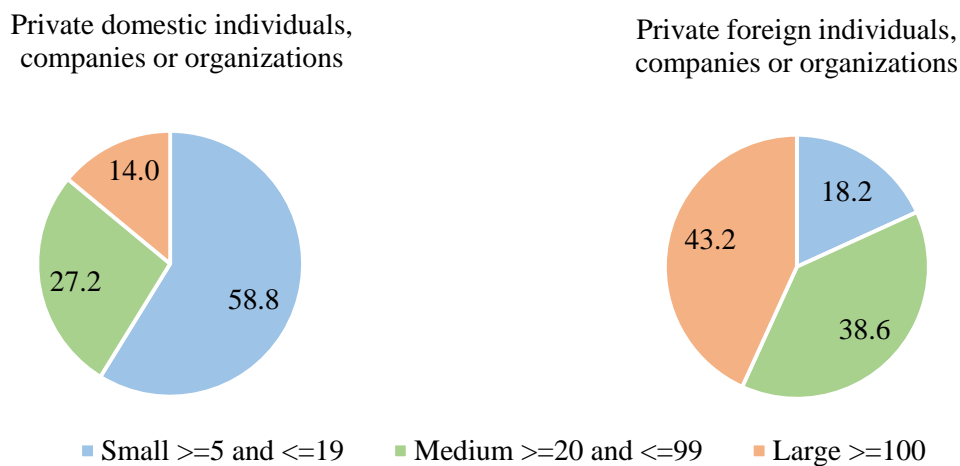
For the analysis of the data, I used the IBM SPSS Statistics Version 23.0 software package. The empirical study involves statistical testing of the proposed relationships between the dependent and independent variables. Because of the nature of the data collected, I used parametric and non-parametric tests for testing the hypothesis. More specifically, I used the Independent sample t-test as parametric test, and the Chi square and Mann-Whitney U Test as non-parametric tests.

### 4.3 Descriptive statistics

In this subchapter, I use descriptive statistics to illustrate the basic attributes of the data and to provide summaries about the sample in order to analyze it in a meaningful way so that certain patterns are discovered and explained. The data is mainly represented as a combination of tabulated and graphical description through tables, graphs and charts. Also, a statistical commentary is provided to discuss the results of the analysis.

Figure 2 shows the type of ownership and company's size based on the number of employees. Domestic companies that have more than 5, but less than 20 employees represent the majority of domestic companies, or exactly 58.8% of total domestic companies. 27.2% of the domestic companies have more than 20, but less than 100 employees. However, only 14% of the domestic companies have more than 100 employees.

Figure 2. Type of ownership and size of the company (in %)\*



Note.\*  $N_{domestic}=493$ ,  $N_{foreign}=44$

The situation is different with the foreign owned companies. Namely, the majority of the foreign owned companies have more than 100 employees, or 43.2% of total foreign companies. 38.6% of the foreign companies have between 20 and 100 employees and only 18.2% of the companies have more than 5, but less than 20 employees. The conclusion is that most of the domestic companies have smaller number of employees (less than 20)

compared to the foreign companies that have bigger number of employees i.e. more than 100. This result is expected since foreign companies enjoy the benefits of cheap labor in Macedonia and mainly operate in labor intensive industries, such as manufacturing, which usually requires large amount of labor (Figure 8).

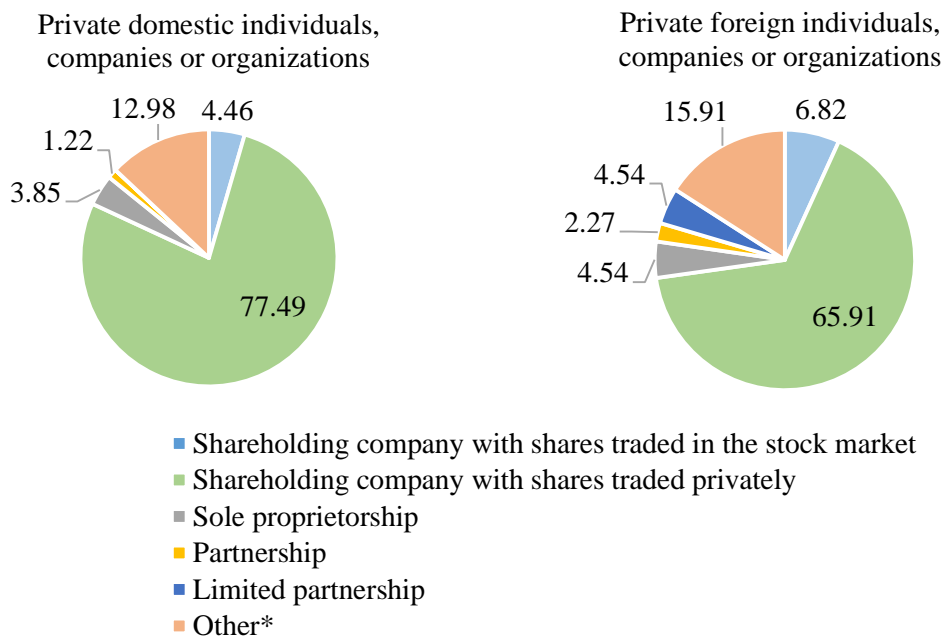
In 2014, microenterprises with less than 10 employees accounted for 90.7% of the total number of enterprises in Macedonia and employed 32.9% of the total number of employees. Large enterprises participated with only 0.3% of the total number of enterprises and accounted for 25% of the total employment in Macedonia (State Statistical Office of Macedonia, 2016). The true number of employees in foreign companies is not known, although according to what is published in the press, it is estimated to be somewhere between 10,000 to 12,000 people in 2015. This number has increased in 2016, reaching 17,000 employments in the TIDZ. According to World Bank and IMF (2015), 20,000 new employments are expected to be open in foreign companies in the years to follow.

Figure 3 shows the type of company and firm's current legal status. The majority of the domestic companies are shareholding companies with shares traded privately i.e. 77.49% of total domestic companies. Almost 13% have other legal status different from the given options, out of which 90.5% are one-person limited liability companies. Shareholding companies with shares traded in the stock market present 4.46% of the total number of domestic companies. The least present legal form for domestic companies is partnership with only 1.22% of total domestic companies.

The situation is similar with the foreign owned companies. Namely, almost 66% of them are shareholding companies with shares traded privately and 6.82% are shareholding companies that trade shares in the stock market. Almost 16% of foreign owned companies have other legal form different from the given options, out of which 85.7% are one-person limited liability companies. However, 4.54% of the foreign owned companies are in a form of legal partnership, unlike domestic owned companies where this legal form is not present at all in the given sample.

The data for the structure of newly formed enterprises in Macedonia, according to the legal form, shows that enterprises in a form of limited liability company (Mac. *Društvo so Ogranicena Odgovornost- DOO*) and joint-stock company (Mac. *Akcionersko društvo- AD*) have the highest proportion of the total number of newly formed companies, or 70.7% (State Statistical Office of Macedonia, 2016). The pattern is the same for foreign companies. Namely, foreign investors established their companies mainly as limited liability company (Mac. *Društvo so Ogranicena Odgovornost- DOO*) and joint-stock company (Mac. *Akcionersko društvo- AD*) (KPMG Macedonia DOO, 2015).

Figure 3. Type of ownership and firm's current legal status (in %) \*\*

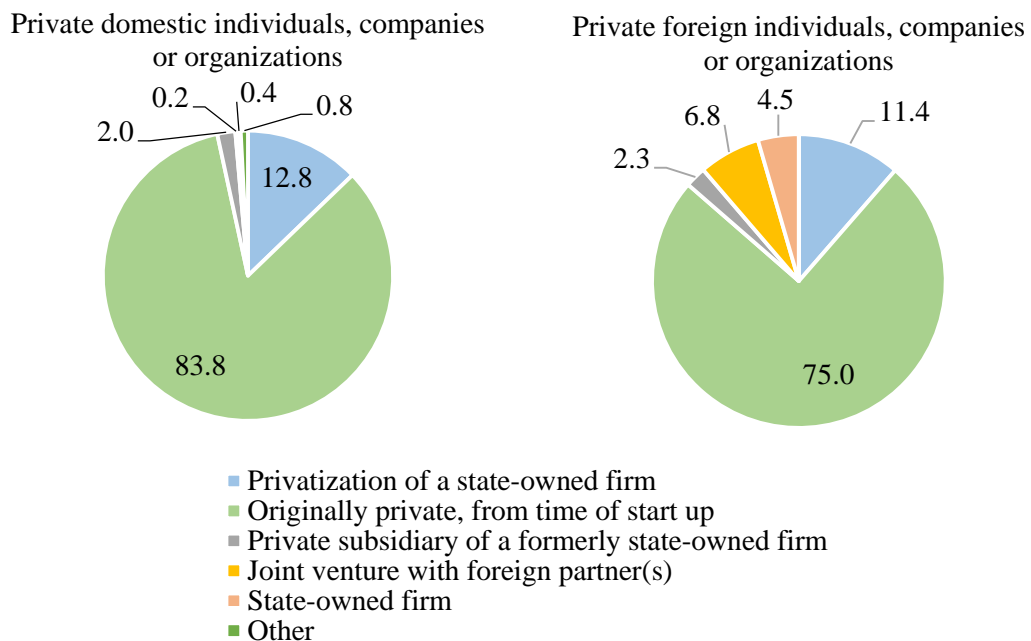


Note. \*\*  $N_{domestic}=493$ ,  $N_{foreign}=44$

Note. \*\* In cases where the sum of the percentages is 99.99% or 100.1% is due to rounding.

\*Holding enterprise, Institution, One-person Limited Liability Company, PHF-Pharmacy, PHF- Private Health facility, Private health institution, Manufacturing private establishment for exporting

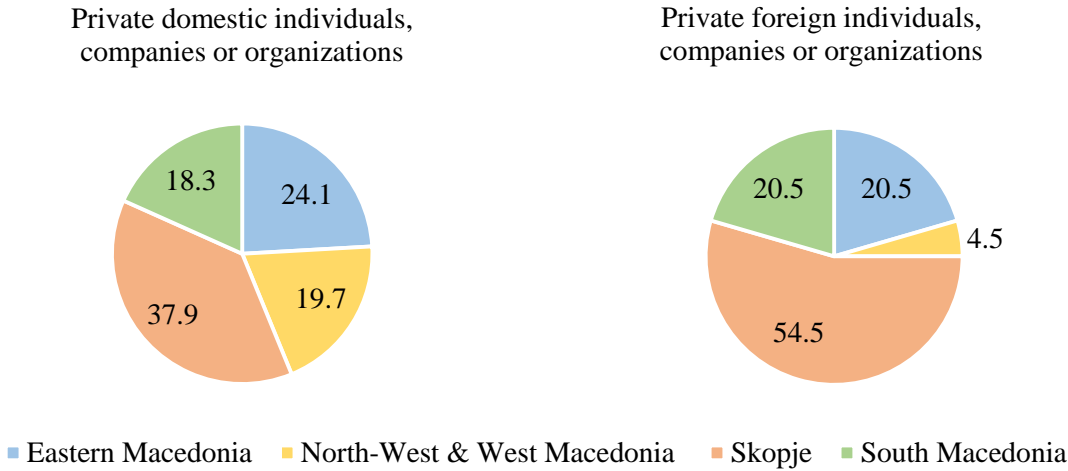
Figure 4. Type of ownership and how the firm was established (in %)\*



Note. \*  $N_{domestic}=493$ ,  $N_{foreign}=44$

Figure 4 shows that almost 97% of the domestic owned companies are established as private from time of start-up (83.3%) and as a result of privatization of a state-owned firm (12.8%). The situation is similar with foreign owned companies, where 75% started as private and 11.4% are privatized from a state-owned firm. However, foreign owned companies were also established as joint venture with foreign partner(s) (6.8%), state owned firm (4.5%) and private subsidiary of a formerly state- owned firm (2.3%). These forms of establishment are less present with the domestic companies (Figure 4).

Figure 5. Type of ownership and regional distribution (in %)\*



Note. \* N<sub>domestic</sub>=493, N<sub>foreign</sub>=44

Figure 5 shows that almost 38% of the domestic owned companies are located in Skopje and around 24% in Eastern Macedonia. 19.7% and 18.3% of the domestic companies are located in North-West& West Macedonia and South Macedonia, correspondingly. More than half of the foreign owned companies are located in Skopje (54.5%) and only 4.5% in the North-West& West Macedonia. The number of companies located in Eastern and South Macedonia is the same, or 20.5% of the foreign companies are situated in each of these two regions. The conclusion is that domestic owned companies are more normally distributed across the country, compared to foreign owned companies that have major presence in the capital city of Macedonia.

This set of distribution for foreign companies, however, is not by accident. It is rather due to the benefits the foreign companies get if they locate themselves in TIDZs (Section 3.3 in Chapter 3). Currently, the Free Zones Authority controls three zones out of which two are located in Skopje and the third one is situated in Štip. This explains the high concentration of foreign companies in the capital city. The zone in Tetovo is currently in the process of implementing its first investment projects. The zones in different regions of Macedonia are in various stages of development and have the same goal of equal economic advancements of all regions. The regional dispersion of the Free Zones can be seen in Figure 6 bellow.

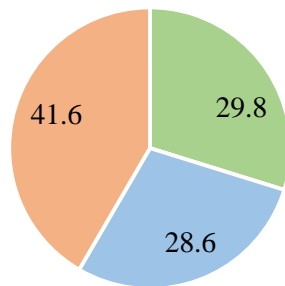
Figure 6. Regional dispersion of Technological Industrial Regional Zones in Macedonia



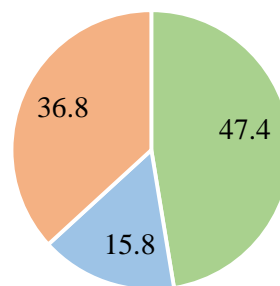
Source: Directorate for technological industrial development zones, 2016.

Figure 7. Type of ownership and size of locality (in %)\*

Private domestic individuals, companies or organizations



Private foreign individuals, companies or organizations



■ Capital city      ■ 50,000 to 250,000      ■ Less than 50,000

Note. \*  $N_{domestic}=440$ ,  $N_{foreign}=38$

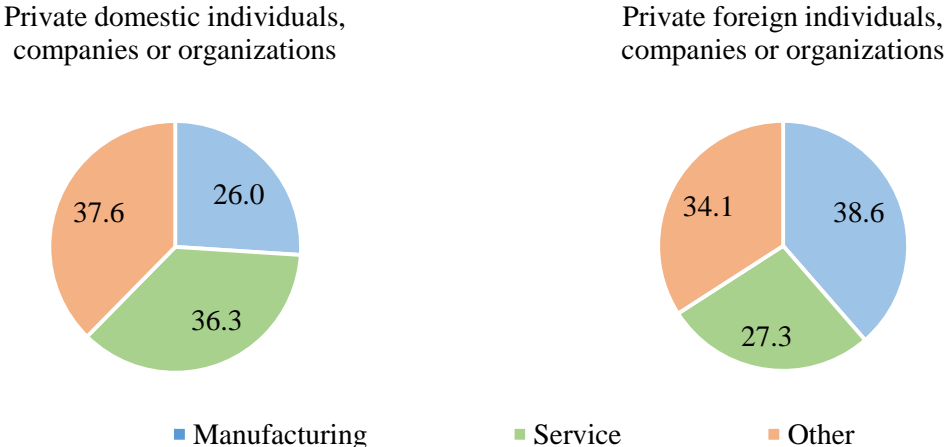
Figure 7 shows how companies are dispersed in terms of size of locality. The highest percentage of domestic owned companies are located in the cities with less than 50,000 inhabitants i.e. 41.6%. Almost 30% of the domestic owned companies are located in the capital city and the percentage of domestic companies situated in cities with 50,000 to 250,000 inhabitants is 28.6%. The majority of the foreign companies are located in the

capital city (47.7%), which is not unexpected because of the three technological zones that are located near the city. Further, 36.8% of the foreign companies are located in cities with less than 50,000 inhabitants due to the seven free zones located in the smaller cities in the Eastern and Southeastern Macedonia. Compared to this, 15.8% of the foreign companies are situated in cities with 50,000 to 250,000 inhabitants due to the four free zones located in the bigger cities in Western and Southwestern Macedonia (Figure 6).

There are three main groups of industry in which a company can operate: manufacturing, service and other industries that do not belong to neither manufacturing, nor service. In the analyzed dataset, 27.36% are in the manufacturing industry, 35.26% in the service and 37.38% in other industries.

Most of the domestic owned companies operate in the group of other industries (37.6%), followed by the service industry (36.3%) and then manufacturing (26%). Opposite to this, the foreign owned companies mainly operate in the manufacturing industry (38.6%), followed by other industries (34.1%) and then the service industry (27.3%) (Figure 8).

Figure 8. Type of ownership and industry classification (in %)\*



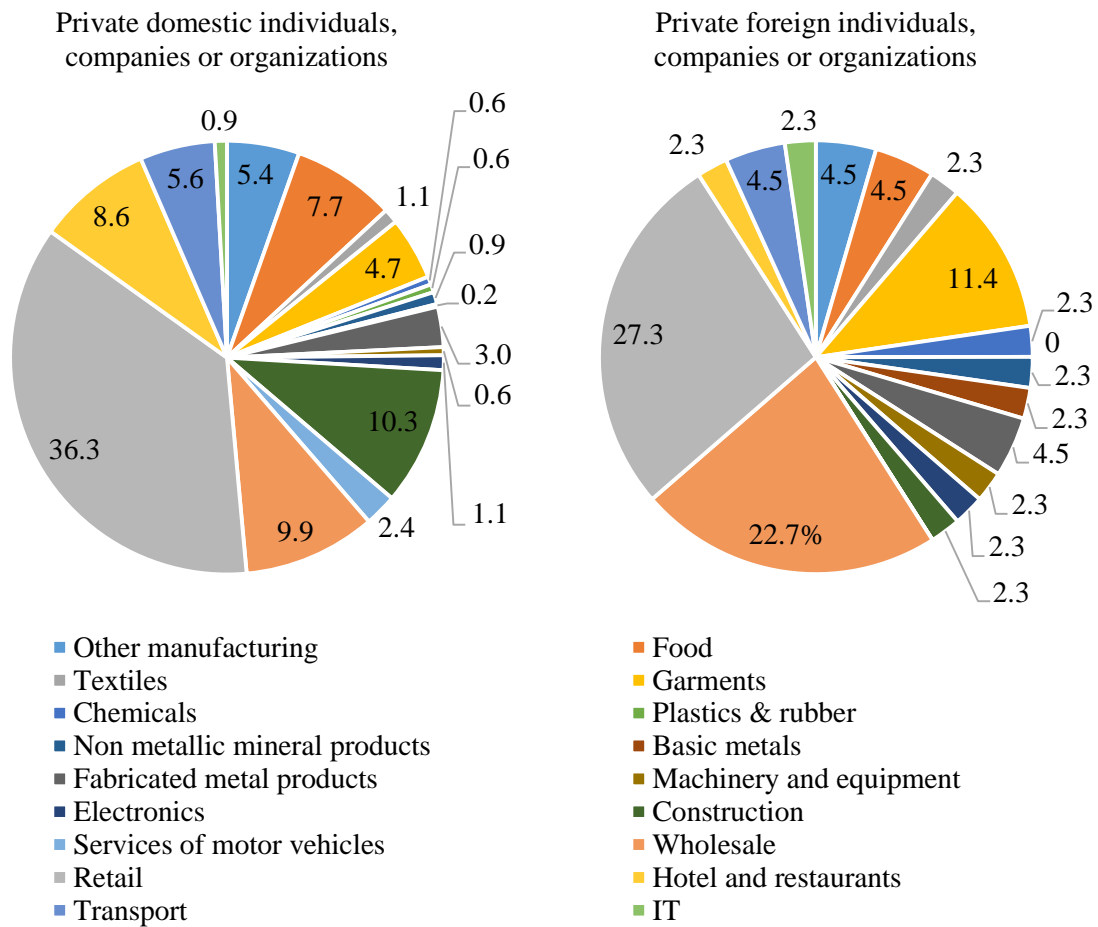
Note. \* N<sub>domestic</sub>=465, N<sub>foreign</sub>=44

Note. \* In cases where the sum of the percentages is 99.99% or 100.1% is due to rounding.

Retail is the main industry in which both domestic owned and foreign owned companies mainly do their operations. Namely, 36.3% of the domestic and 27.3% of the foreign companies operate in the retail industry. However, the second most prevalent industry for domestic owned companies is construction (10.3%), followed by wholesale (9.9%) and hotel and restaurants (8.6%). The second most frequent industry for the foreign owned companies is wholesale (22.7%), followed by the garments industry (11.4%). Equally present industries for the foreign owned companies are fabricated metal products, transport, food and other manufacturing, with 4.5% each. Figure 9 gives more detailed division of the industries in which the companies operate.



Figure 9. Type of ownership and industry (in %)\*



Note. \* N<sub>domestic</sub>=465, N<sub>foreign</sub>=44

Note. \* In cases where the sum of the percentages is 99.99% or 100.1% is due to rounding.

The following bullet points briefly summarize the **main findings of the general descriptive statistics** of the sample:

- Most of the domestic companies have smaller number of employees i.e. less than 20 (58.8%) and mainly operate in other industries (37.6%), immediately followed by the service industry (36.3%). Most of the foreign companies have bigger number of employees i.e. more than 100 (43.2%) and mainly operate in a more labor intensive industries, such as manufacturing (38.6%). Retail is the main industry in which both domestic owned (36.3%) and foreign owned companies (27.3%) mainly do their operations.
- Both domestic and foreign owned companies are mainly established as private from time of start-up (83.3% and 75%, correspondingly) and as a result of privatization of a state-owned firm (12.8% and 11.4%, correspondingly).

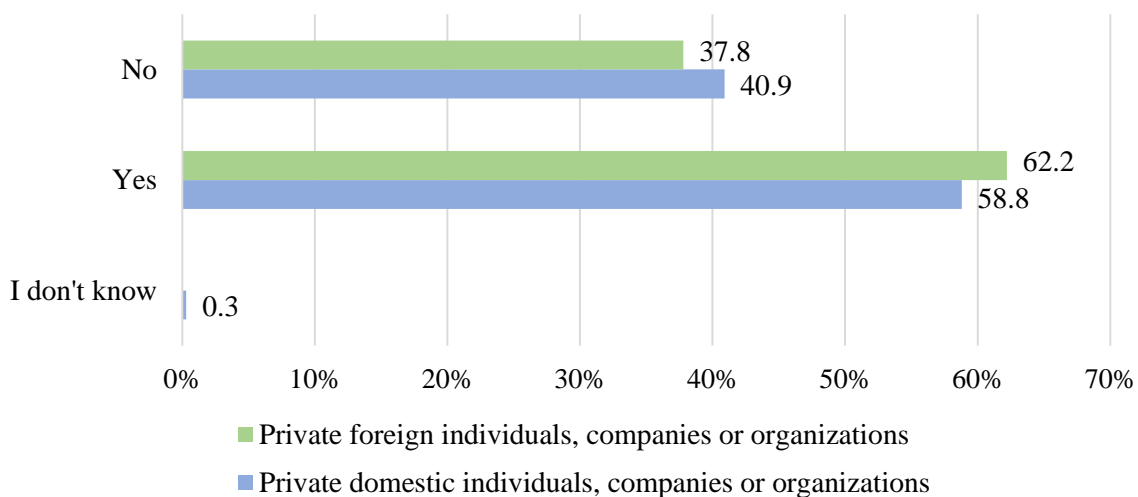
- Domestic owned companies are more normally distributed across the country, although the highest percentage of them are located in Skopje (37.9%). Foreign owned companies also have major presence in the capital city of Macedonia (54.5%).
- The highest percentage of domestic owned companies are located in the cities with less than 50,000 inhabitants i.e. 41.6%, mainly in Eastern Macedonia. The majority of the foreign companies are located in the capital city (47.7%), which is not unexpected because of the three technological zones that are located near the city. Foreign companies are least present in North-West& West Macedonia due to the smaller number of free economic zones.

## 5 EMPIRICAL ANALYSIS AND RESULTS

### 5.1 The relationship of ownership structure and innovation

Figure 10 shows that foreign owned companies introduced more new products or services in comparison to the domestic owned companies. Namely, 62.2% of the foreign companies introduced new products/services compared to 37.8% that did not. On the other side, approximately 59% of the domestic companies introduced new products or services in comparison to 40.9% that did not.

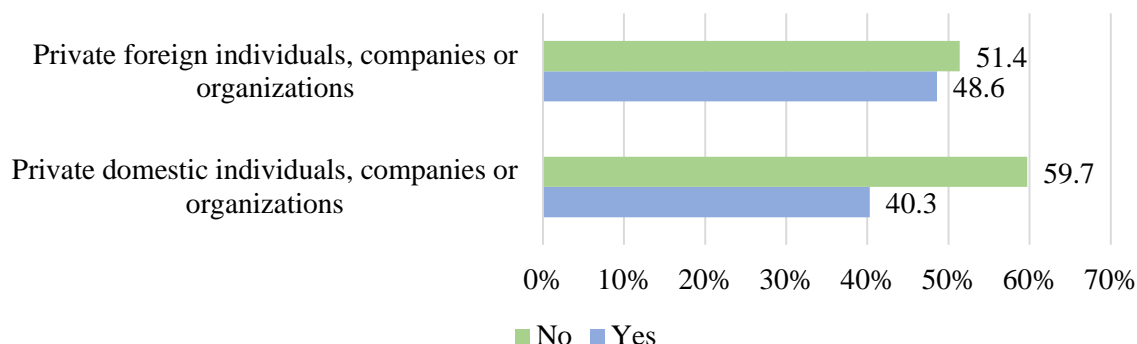
Figure 10. Has the establishment introduced new products or services? (in %)\*



Note. \*  $N_{domestic}=320$ ,  $N_{foreign}=37$

Figure 11 shows that more than half of the domestic and foreign companies did not spend on research and development activities. More specifically, 59.7% of the domestic and 51.4% of the foreign companies did not spend on R&D. However, it can be concluded that more foreign companies (48.6%) did spend on R&D in comparison to domestic companies where around 40% of them spent money on either in-house or outsourced research and development activities.

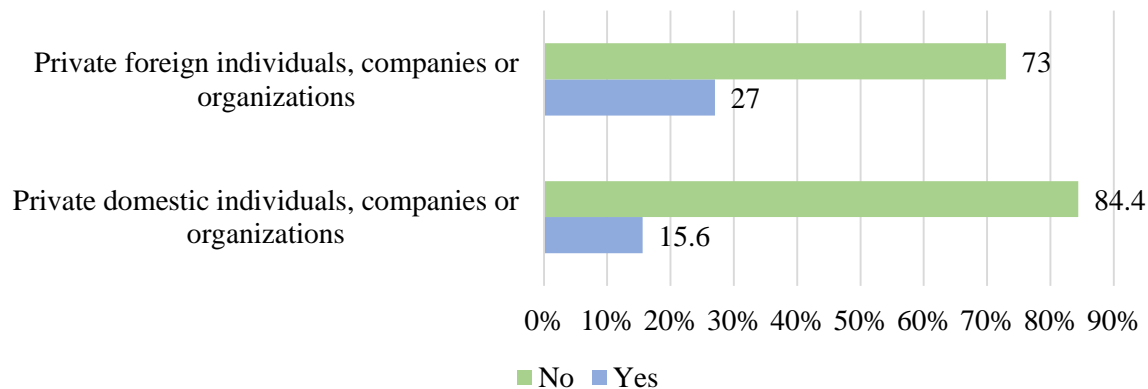
Figure 11. Did the establishment spend on R&D activities, either in-house or contracted with other companies (outsourced)? (in %)\*



Note. \*  $N_{domestic}=320$ ,  $N_{foreign}=37$

Figure 12 shows that foreign companies have discontinued at least one line of product or service more than domestic companies. In numbers, 27% of the foreign companies have discontinued product line or service compared to 15.6% of the domestic companies. However, more than two thirds of both domestic and foreign companies have not discontinued product line or service, or more exactly 84.4% and 73% accordingly.

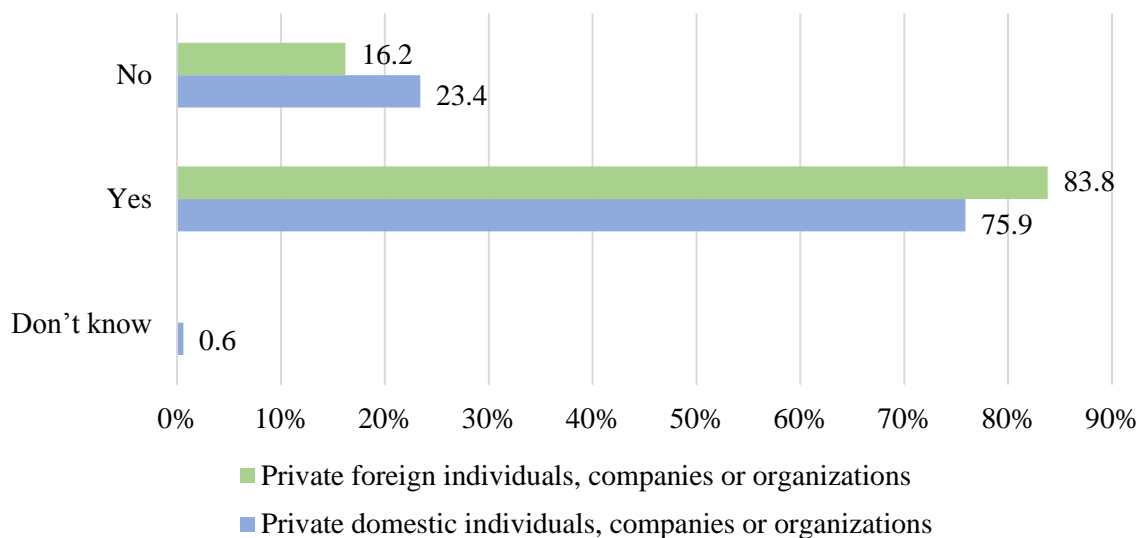
Figure 12. Has the establishment discontinued at least one product line or service? (in %)\*



Note. \*  $N_{domestic}=320$ ,  $N_{foreign}=37$

Contrary to the discontinuation of a product or service, more foreign companies have upgraded an existing product or service compared to domestic companies. More specifically, 83.8% of the foreign companies have upgraded an existing product or service compared to 75.9% of the domestic companies. Around 23% of the domestic companies did not upgrade a product or service and this percentage is even lower for the foreign companies, i.e. 16.2% (Figure 13).

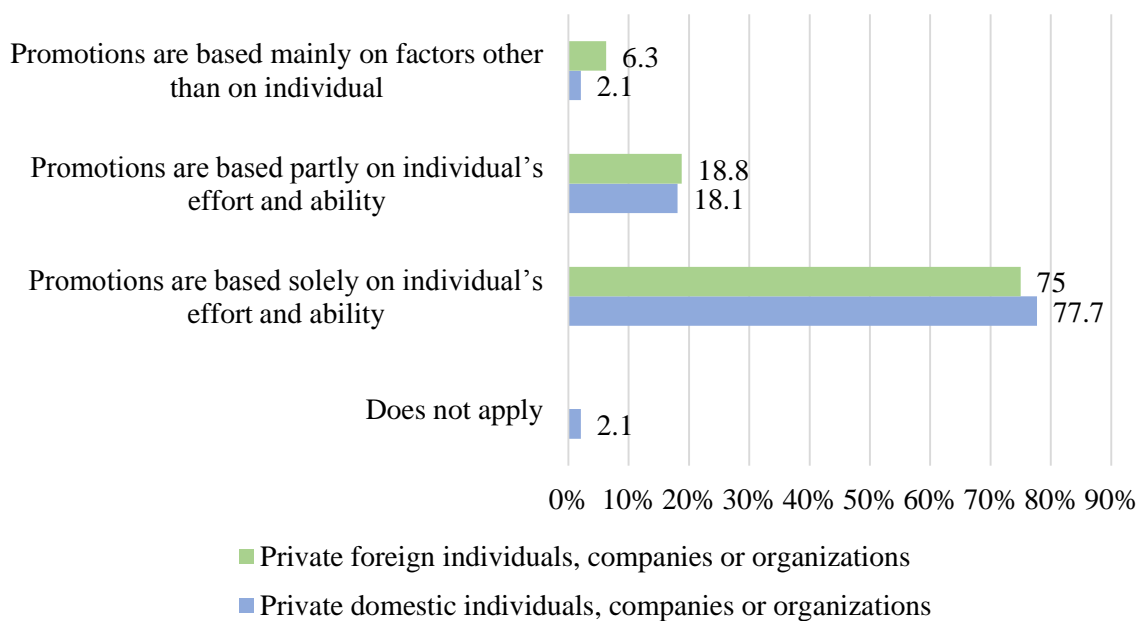
Figure 13. Has the establishment upgraded an existing product line or service? (in %)\*



Note. \*  $N_{domestic}=320$ ,  $N_{foreign}=37$

Note. \* In cases where the sum of the percentages is 99.99% or 100.1% is due to rounding.

Figure 14. Which of the following best corresponds to the main way employees are promoted in the establishment? (in %)\*

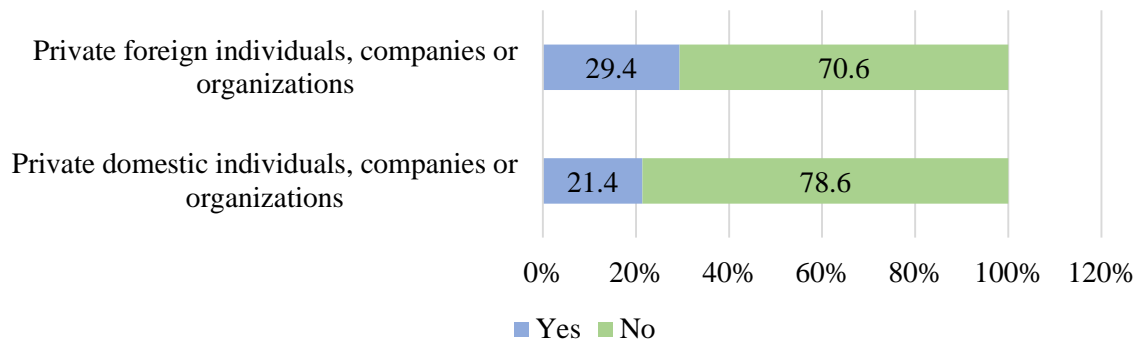


Note. \*  $N_{domestic}=94$ ,  $N_{foreign}=16$

Note. \* In cases where the sum of the percentages is 99.99% or 100.1% is due to rounding.

Figure 14 shows that promotions based only on individual's effort and ability are the main way of employee's promotion in domestic and foreign companies with 77.7% and 75%, correspondingly. The second most common way of promotion is through partial individual effort and ability, where 18.8% of the foreign and 18.1% of the domestic companies use this method. The least popular way of promoting employees is based on factors other than individual.

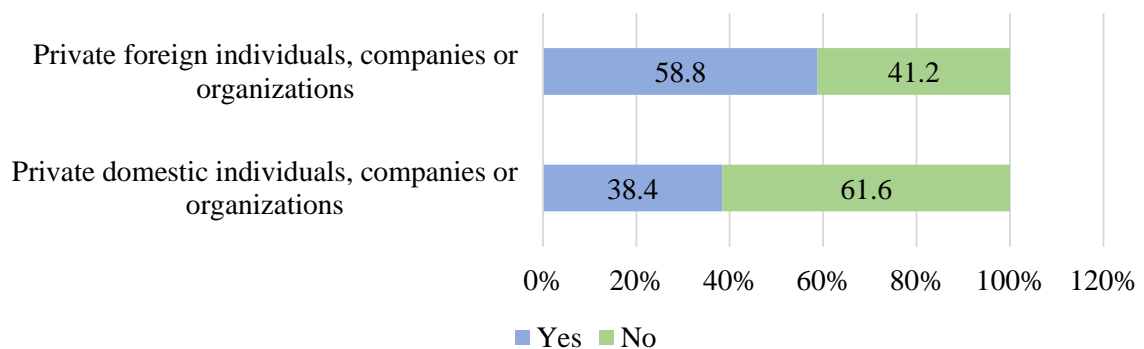
Figure 15. Has the establishment introduced new production/supply methods? (in %)\*



Note. \*  $N_{domestic}=341$ ,  $N_{foreign}=17$

Figure 15 shows that introduction of new production or supply methods is not that common practice in the companies in Macedonia. However, foreign companies have made more investments into introducing new production or supply methods in comparison to domestic companies. Namely, 21.4% of the domestic and 29.4% of the foreign companies introduced new production/supply methods compared to 78.6% and 70.6% of the companies correspondingly, that did not.

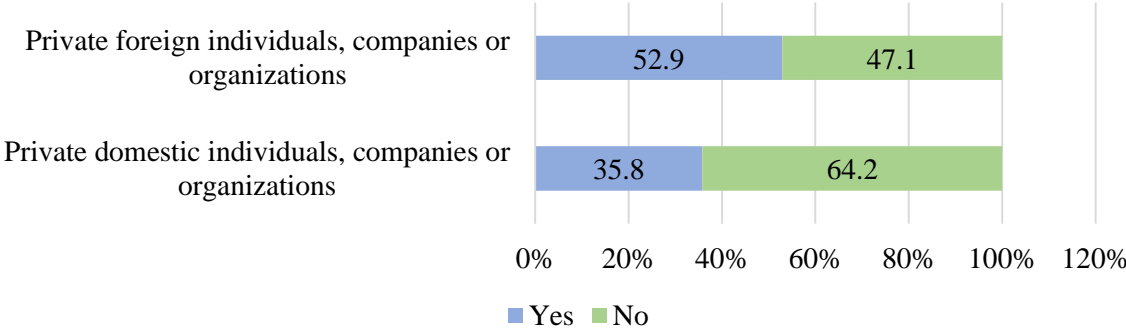
Figure 16. Has the establishment introduced new organizational/management practices or structures? (in %)\*



Note. \*  $N_{domestic}=341$ ,  $N_{foreign}=17$

The picture is similar with the introduction of new organizational/management practices or structures. Nevertheless, the difference among domestic and foreign companies regarding this question is bigger in comparison to the introduction of new production/supply methods. This means that, both domestic and foreign companies, are focusing more on the management organization and structures and rank investment in production/supply methods as a second priority. This is quite expected primarily for domestic companies, since theory shows that organizational practices are the cheapest form of innovation. In numbers, almost 59% of the foreign companies introduced new organizational/ management practices or structures compared to approximately 38% of the domestic companies that have done the same (Figure 16).

Figure 17. Has the establishment introduced new marketing methods? (in %)\*



Note. \* N<sub>domestic</sub>=341, N<sub>foreign</sub>=17

Figure 17 shows that more than half of the foreign companies introduced new marketing methods, or exactly 52.9%, compared to 47.10% that did not. This is opposite from the domestic companies where almost two thirds of them did not introduce new marketing methods and around 36% that did introduce.

The following bullet points briefly summarize the main findings from the survey regarding **innovation** in Macedonia:

- Foreign owned companies introduced more new products or services in comparison to the domestic owned companies. At the same time, the former spent more money on R&D than the latter.
- Foreign companies terminated at least one line of product or service more often than domestic companies. However, they also upgraded more existing products and services than domestic companies.
- Foreign companies have introduced more new production/ supply methods, management organization and structures practices, and new marketing techniques in comparison to domestic companies. However, both domestic and foreign companies are focusing more on implementing new management organization and structure practices

and rank investment in marketing methods as a second priority. Investment in new production/supply methods is least present form of innovation.

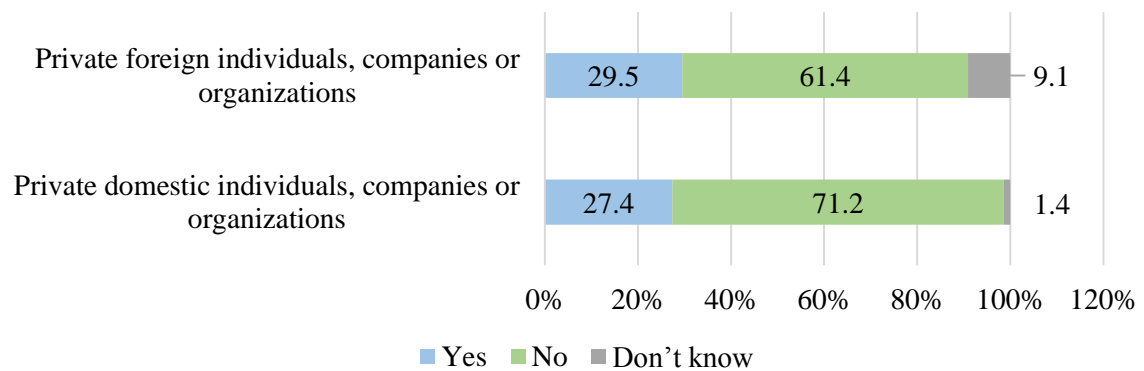
- Both domestic and foreign companies use promotions based only on individual's effort and ability as the main way of employee's promotion.

## 5.2 The relationship of ownership structure and innovation resources

### 5.2.1 Access to finance as innovation resource

The following part gives more information about how companies finance their operation.

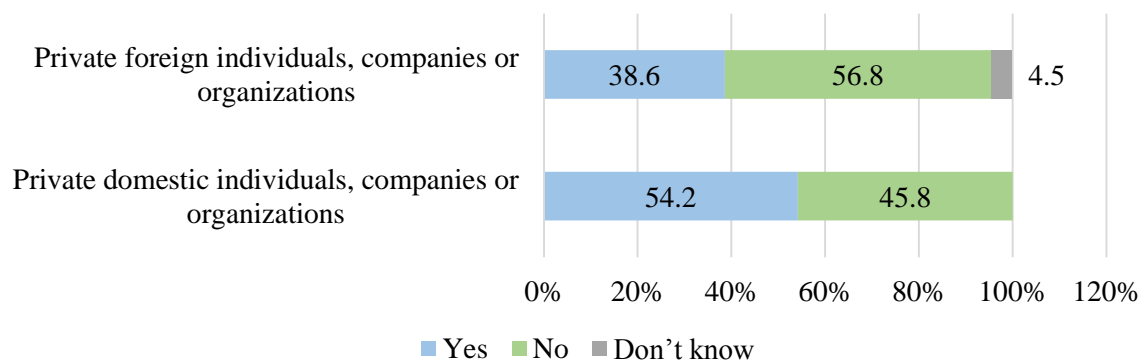
Figure 18. Does this establishment have an overdraft facility? (in %)\*



Note. \*  $N_{domestic}=493$ ,  $N_{foreign}=44$

Figure 18 shows how much of the domestic and foreign owned companies use credit in a form of overdraft facility. The majority of them do not use this form of financing, or more specifically 71.2% of the domestic and 61.4% of the foreign companies. Only 27.4% of the domestic and 29.5% of the foreign owned companies use overdraft facility.

Figure 19. Does this establishment have a line of credit or a loan from a financial institution? (in %)\*



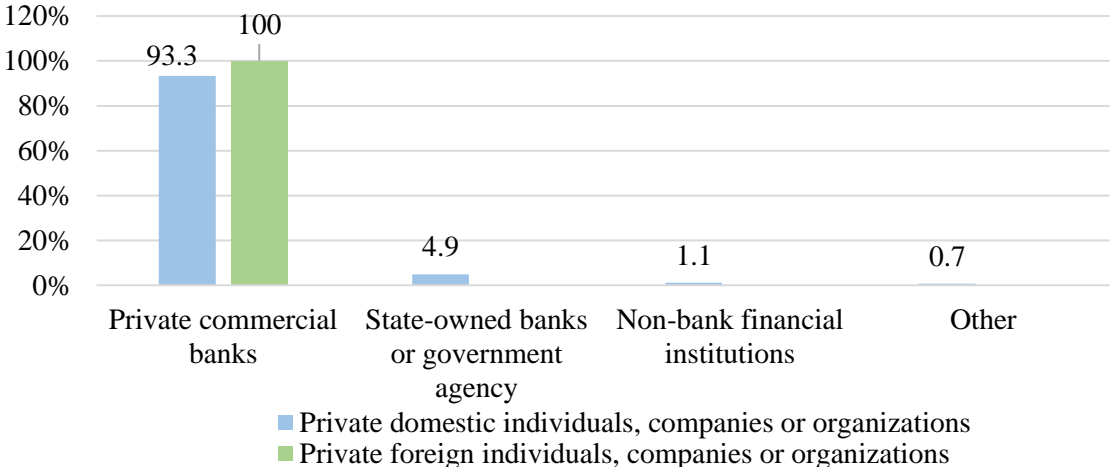
Note. \*  $N_{domestic}=493$ ,  $N_{foreign}=44$

Note. \* In cases where the sum of the percentages is 99.99% or 100.1% is due to rounding.

Compared to Figure 18, Figure 19 shows the company’s exposure in a form of credit line or a loan towards financial institutions. Furthermore, it can be seen that both, domestic and foreign owned companies, use these forms of borrowing money more often than as an overdraft facility. More specifically, 54.2% of the domestic companies and 38.6% of the foreign companies have loan or line of credit from a financial institution.

Figure 20 shows the type of financial institution that granted the loan to domestic and foreign companies. Namely, all of the foreign owned companies borrowed money from private commercial banks. This percentage is lower for the domestic companies i.e. 93.3%. Domestic companies also borrowed from the following financial institutions: state-owned banks or government agency (4.9%), non-bank financial institutions (1.1%) and other financial institutions (0.7%). It is not surprising that foreign companies were borrowing money only from the private commercial banks. Namely, the only bank in Macedonia that has total domestic ownership and at the same time has the Republic of Macedonia as the only owner is the Macedonian Bank for Development Promotion (MBDP). This state-owned bank’s strategic goal is to provide support by financing small and medium-sized companies as well as companies that are exporters, which will ultimately result in development of the Macedonian economy.

Figure 20. Referring to the most recent line of credit or loan, what type of financial institution granted this loan? (in %)\*



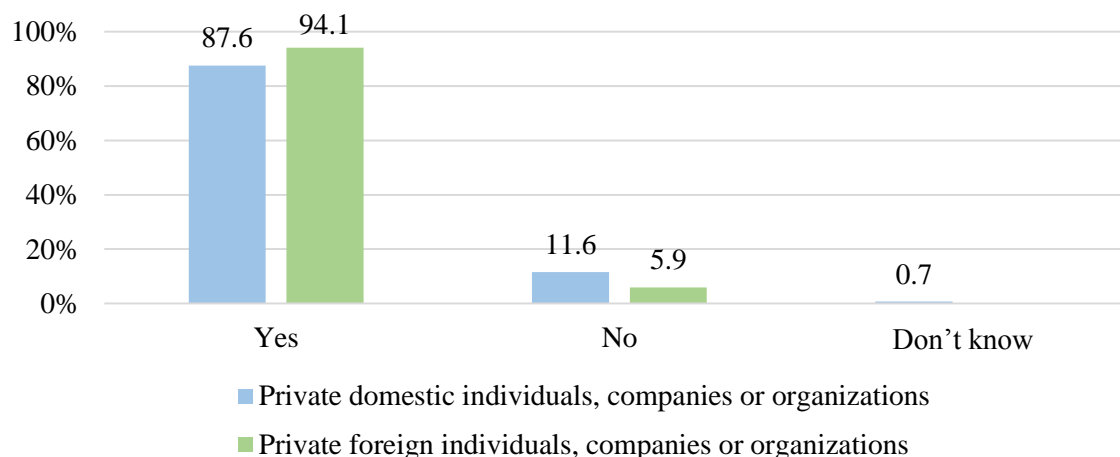
Note. \* N<sub>domestic</sub>=267, N<sub>foreign</sub>=17

Figure 21 shows that financial institutions required collateral more usually, than not. Around 94% of the foreign companies needed to provide collateral for the loan or credit line. This percentage is lower for the domestic companies i.e. approximately 88% of them were required collateral for their debt exposure. The lower percentage can be related to the value of the granted loan. Namely, the analysis shows that the average value of loan granted to the domestic companies is 12,916,865 denars (or 209,011 euros), compared to the average value



of 24,461,545 denars (or 395,818 euros) for the foreign owned companies. The higher the value of the loan, the bigger the collateral requirements are. Also, the duration of the loan/ credit line can influence the amount of collateral requirements. The analysis shows that the average duration of loan/credit line for the domestic companies is 44 months, compared to 63 months for the foreign companies. Here, the same principle stands as for the amount of the loan: the bigger the duration of the loan, the higher the collateral requirements are. Finally, another reason might be the special loan packages developed by the private commercial banks which are offered to certain groups of companies, such as: the export-oriented companies, companies that work in the agriculture sector, organic producers, women entrepreneurs, etc. Depending on the value of the loan and the fulfillment of other pre-required conditions, the banks might demand smaller portion of collateral than usual, or no collateral at all.

*Figure 21. Referring only to this most recent loan or line of credit, did the financing require collateral? (in %)\**



*Note.* \*  $N_{domestic}=267$ ,  $N_{foreign}=17$

*Note.* \* In cases where the sum of the percentages is 99.99% or 100.1% is due to rounding.

Table 7 shows the main statistical parameters regarding the value of collateral as percent of loan/line of credit. Namely, domestic companies were required on average 174% of the value of the loan or credit line. The standard deviation is 99.12 and the percentage range of collateral goes from 2% to 700% of the loan/line of credit value. The foreign companies were required smaller percentage coverage on the loan/ credit line. More exactly, foreign companies had to submit collateral, on average 154% of the value of the loan or credit line. The standard deviation is also lower i.e. 51.9. This justifies the narrow percentage range of collateral which is from 100% to 250%.

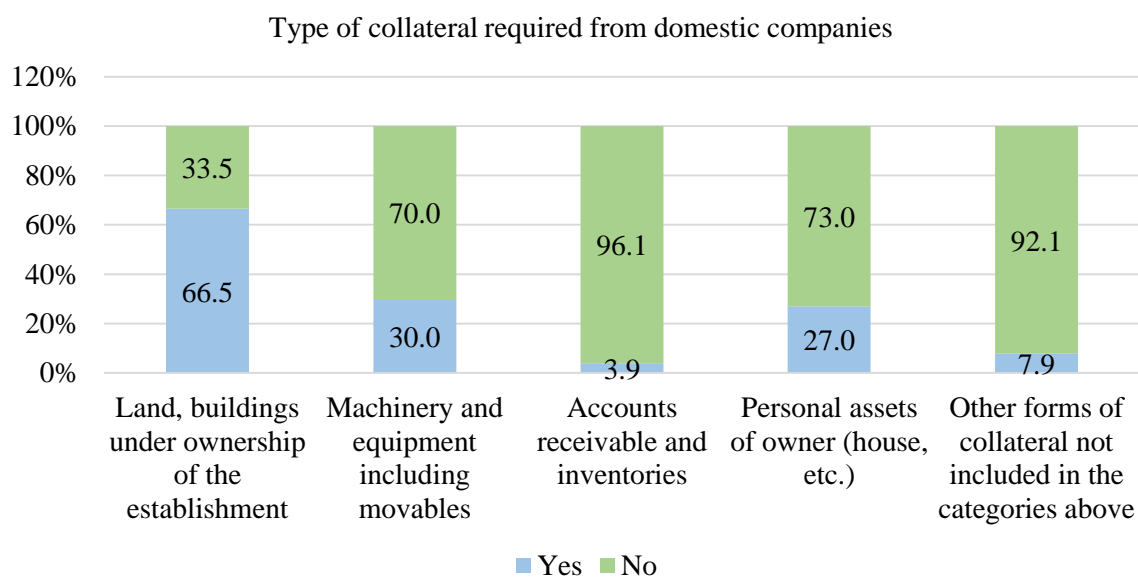
Table 7. Average value of collateral as percent of loan/credit line value\*

	<b>Private domestic individuals, companies or organizations</b>	<b>Private foreign individuals, companies or organizations</b>
<b>Mean</b>	174.37	154.62
<b>Standard deviation</b>	99.12	51.9
<b>Minimum</b>	2.00	100.00
<b>Maximum</b>	700.00	250.00

Note. \*  $N_{domestic}=140$ ,  $N_{foreign}=13$

Figure 22 shows the type of collateral required from domestic companies. Land and buildings under ownership of the company is the main collateral type required from domestic companies (66.5%), followed by machinery and equipment including movables and personal assets of the owner, with 30% and 27%, correspondingly. Account receivables and inventories are the least common type of collateral that banks require i.e. only 3.9% of the domestic companies were required this type of collateral.

Figure 22. Referring only to this most recent loan or line of credit, what type of collateral was required? (in %)\*

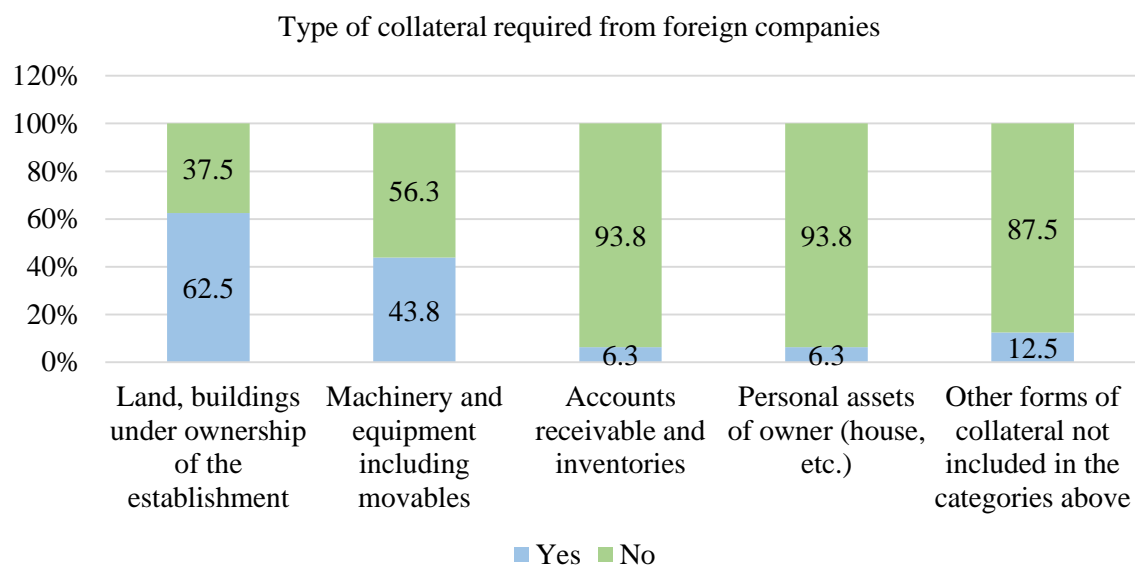


Note. \*  $N=230$  for each type of collateral, except for Other forms of collateral not included in the categories above, where  $N=282$

Figure 23 shows what type of collateral was required from foreign companies. Namely, the situation is similar with the domestic companies. Most common type of collateral required from banks is land and buildings under ownership of the establishment (62.5%), followed by machinery and equipment including movables (43.8%). Collateral types such as, accounts receivables and inventories and personal assets of the owner, are least present form of collateral for foreign companies. The biggest differences in type of collateral required among

foreign and domestic owned companies are in the machinery and equipment and personal assets of the owner. Higher number of foreign companies were required to provide machinery and equipment as collateral in comparison to domestic companies. On the other hand, lower number of foreign companies were required to provide personal assets of the owner as collateral compared to domestic companies. This is expected since most of the foreign owners do not possess a personal assets in the host country.

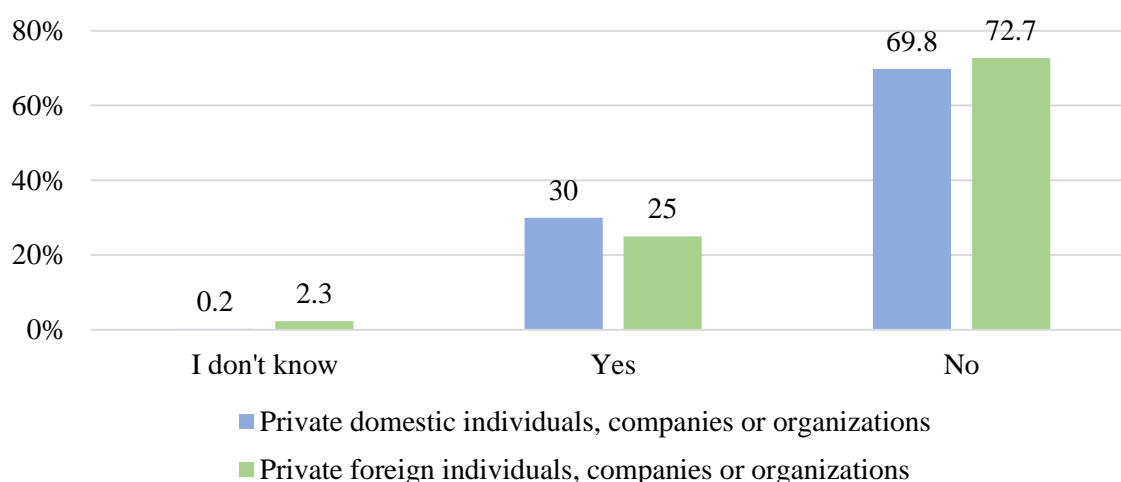
Figure 23. Referring only to this most recent loan or line of credit, what type of collateral was required? (in %)\*



Note. \* N=16

Note. \* In cases where the sum of the percentages is 99.99% or 100.1% is due to rounding.

Figure 24. Did the establishment apply for any new loans or lines of credit? (in %)\*

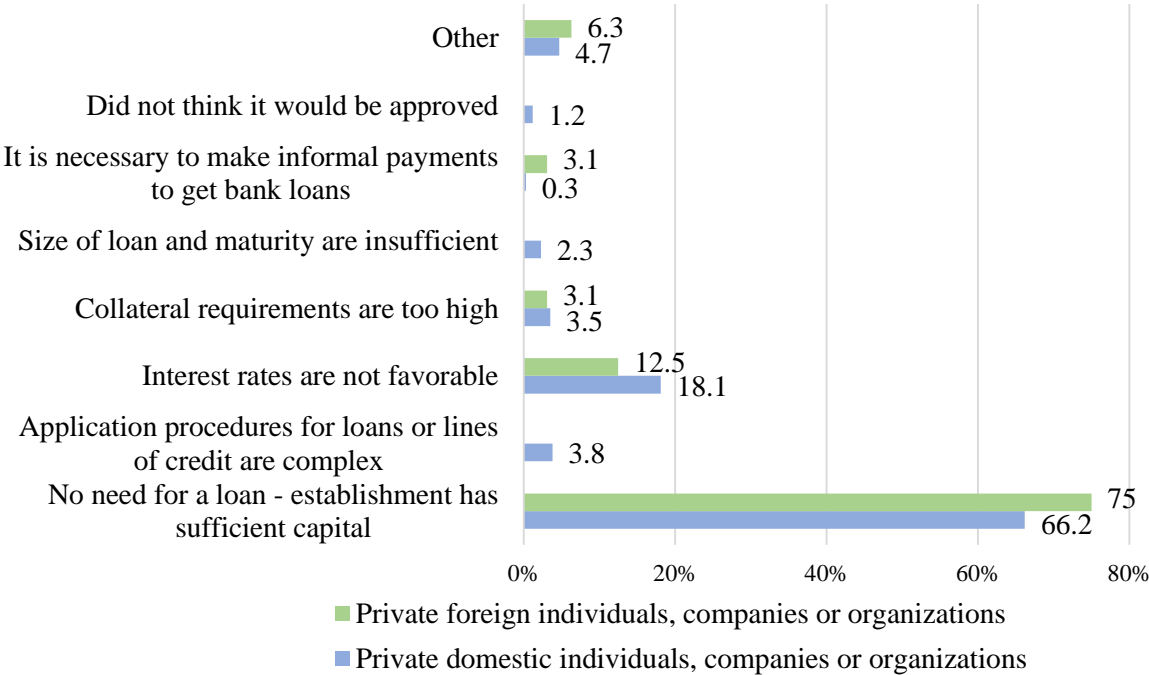


Note. \* N<sub>domestic</sub>=493, N<sub>foreign</sub>=44

Figure 24 shows that the larger part of domestic and foreign companies did not put in an application for new loan or credit line. More specifically, 69.8% of the domestic and 72.7% of the foreign companies did not apply for new debt product. However, 30% of the domestic and 25% of the foreign companies applied for new loan or credit line.

Figure 25 shows the main reasons why companies did not put in an application for new loan or credit line. Namely, 75% of the foreign owned companies responded that they did not require a loan because the company has enough capital. The second main reason is that interest rates are not favorable, or 12.5% of the foreign companies gave this explanation for not taking a new loan or line of credit. The answers are similar with the domestic companies. Around 66% of them said that they do not need a loan since they are having enough capital. More than 18% of them responded that interest rates are not favorable. Among other main reasons for not taking on a new loan for domestic companies, are: size of loan and maturity are insufficient (2.3%), collateral requirements are too high (3.5%), and other (4.7%).

Figure 25. What was the main reason why this establishment did not apply for any new line of credit or loan? (in %)\*



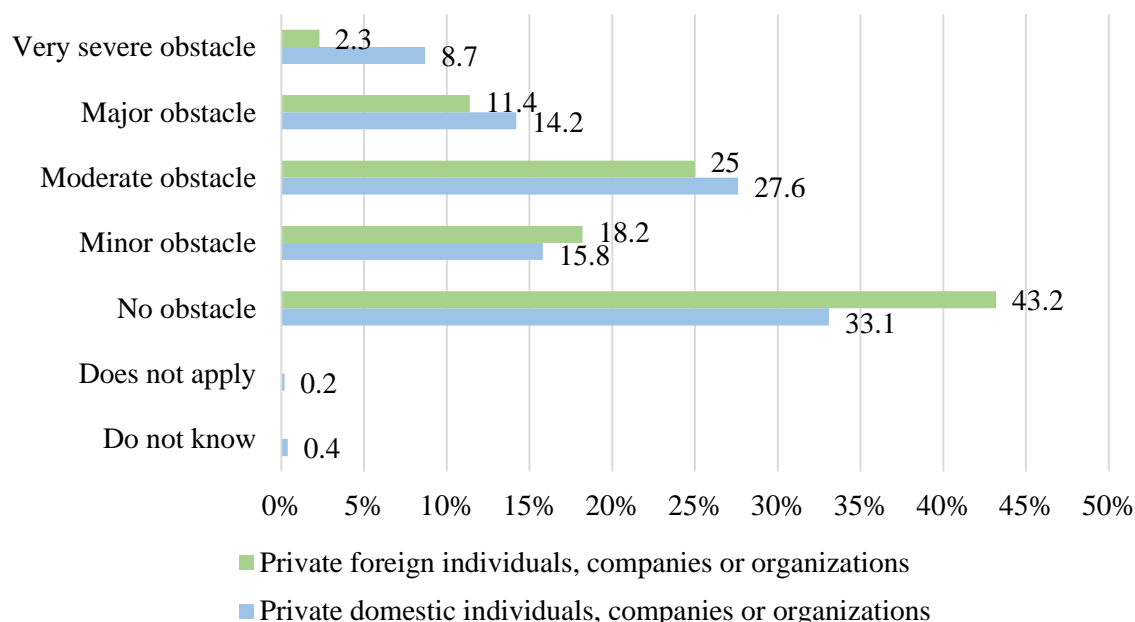
Note. \* N<sub>domestic</sub>=343, N<sub>foreign</sub>=32

Note. \* In cases where the sum of the percentages is 99.99% or 100.1% is due to rounding.

Figure 26 shows that in the majority of cases access to finance is not an obstacle for both domestic and foreign companies, with 33.1% and 43.2% of the companies, correspondingly. However, 27.6% of the domestic and 25% of the foreign companies still find access to finance as moderate obstacle. Only small percentage of the companies perceive access to

finance as very severe obstacle. Nevertheless, the mean value for domestic companies is 1.49, which means that on average domestic companies find access to finance as minor to moderate obstacle. The mean value for foreign companies is smaller (1.11), but still in the range of minor to moderate obstacle, though closer to minor obstacle.

Figure 26. How much of an obstacle is access to finance?<sup>3</sup> (in %)\*



Note. \*  $N_{domestic}=493$ ,  $N_{foreign}=44$

Note. \* In cases where the sum of the percentages is 99.99% or 100.1% is due to rounding.

The following bullet points briefly summarize the **main findings from the survey regarding the access to finance** in Macedonia:

- Both domestic and foreign owned companies used loan/credit line as a form of borrowing money more often than in a form of an overdraft facility.
- All of the foreign owned companies borrowed money from private commercial banks compared to 93.3% of the domestic owned companies. However, domestic companies (4.9%) also borrowed money from the state-owned Macedonian Bank for Development Promotion.
- Around 94% of the foreign companies needed to provide collateral for the loan or credit line compared to 88% of the domestic companies. The lower percentage can be related to the value of the granted loan which for domestic companies is lower on average than for the foreign companies. Also, the duration of the loan/credit line can influence the collateral amount requirements. Finally, another reason might be the special loan packages offered by the banks to certain groups of companies.

<sup>3</sup> Access to finance includes availability and cost, interest rates, fees and collateral requirements

- Most common types of collateral required from banks are company's owned land and buildings and machinery and equipment including movables for both domestic and foreign owned companies. The biggest difference regarding the type of collateral between domestic and foreign owned companies is in personal assets of the owner (house, etc.) which is lower for the foreign companies.
- The main reasons for not putting in an application for new loan for both domestic and foreign companies are the lack of necessity because the company has enough capital and that interest rates are not favorable.
- On average, both domestic and foreign companies find access to finance in Macedonia as minor to moderate obstacle.

### 5.2.2 Human capital formation as innovation resource

The following section gives detailed analysis of the workforce situation in both domestic and foreign companies in Macedonia.

Table 8. Production status, skills possession status and formal training

	<b>Private domestic individuals, companies or organizations</b>	<b>Private foreign individuals, companies or organizations</b>
Average number of permanent, full-time <b>production</b> employees	49.99	148.47
Average number of permanent, full-time <b>non-production</b> employees (managers, administration, sales, etc.)	11.58	21.06
Average number of permanent, full-time <b>skilled</b> production workers	40.81	135.50
Average number of permanent, full-time <b>unskilled</b> production workers	9.18	6.62
Average % of permanent, full-time <b>production</b> employees that received formal training	51.02	28.00
Average % of permanent, full-time <b>non-production</b> employees that received formal training	25.40	23.20

As it can be seen from Table 8, foreign companies on average have higher number of production employees (148) compared to domestic companies (50) as well as higher number of non-production employees, with 21 and 11 employees accordingly. However, the difference of the proportion for these two variables is huge. Namely, foreign companies on average have three times more production employees than domestic companies and two times more non-production employees. The explanation for this would be that foreign companies mainly operate in labor intensive industries, like manufacturing (Figure 8), and

that foreign companies employ larger number of employees in general (Figure 2). However, this can also show that foreign companies have more efficient managerial structure since they manage their businesses with less non-production workers per production worker. Next, foreign companies dispose with higher number of skilled production workers on average compared to domestic companies. Contrary to this, the number of unskilled production workers is lower on average for foreign companies. This being said, we can justify why domestic companies perform formal training on higher number of production as well as non-production workers than foreign companies. Nonetheless, both domestic and foreign companies perform more formal trainings to production workers than non-production.

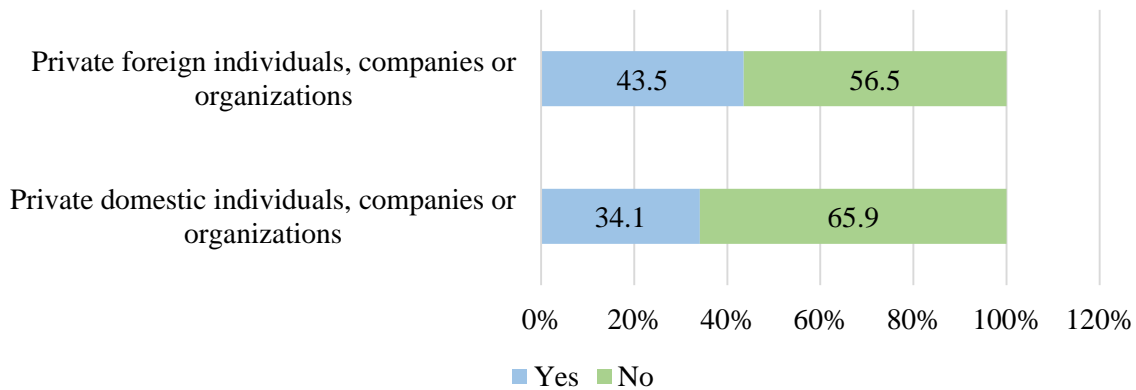
Table 9. Length of employment, education status and labor cost

	<b>Private domestic individuals, companies or organizations</b>	<b>Private foreign individuals, companies or organizations</b>
Average % of employees that have <b>university degree</b>	16.34	24.02
Average <b>total annual labor cost</b> (including wages, salaries, bonuses, social payments)(in denars)	11,952,242.00	25,612,974.00

The average percent of employees that have obtained university degree is bigger for foreign companies. Namely, the average percent of employees with university degree for foreign companies is 24.02% compared to 16.34% of the employees from domestic companies that have received a university degree. Consequently, the average total annual labor cost are higher for foreign companies, reaching 25,612,974 denars (approximately 414,449 euros) compared to domestic companies that have average total annual labor cost of 11,952,242 denars (193,402 euros) (Table 9). However, the educational status cannot be the sole reason for the higher costs. Namely, if we go back to Figure 2, we can see that foreign companies also have higher number of employees. Nevertheless, in interviews conducted by UNCTAD, foreign companies in Macedonia have revealed that they bring high-productivity jobs and tend to pay higher wages in most industries. The exception are the financial intermediation, real estate and other personal, community and social service activities (UNCTAD, 2012).

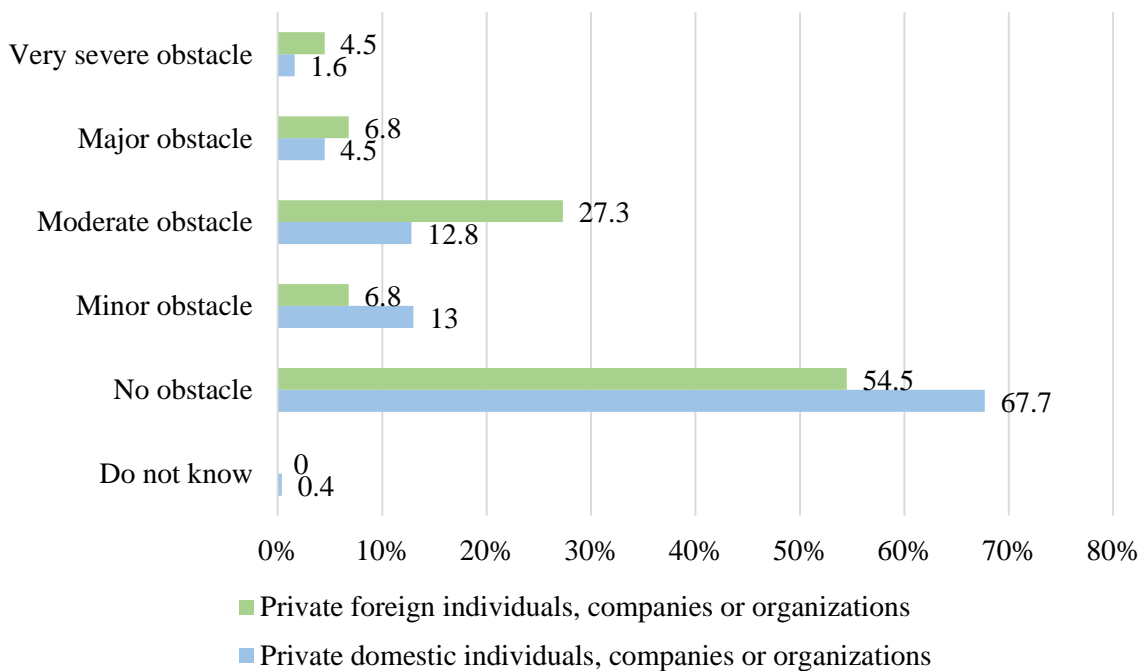
Figure 27 shows that in most cases both domestic and foreign companies did not provide formal training programs for their permanent, full-time employees. However, the percentage of companies that did provide formal training programs is higher for foreign companies (43.5%) compared to domestic companies (34.1%).

Figure 27. Did the establishment have formal training programs for its permanent, full-time employees? (in %)\*



Note. \*  $N_{domestic}=267$ ,  $N_{foreign}=23$

Figure 28. How much of an obstacle are labor regulations? (in %)\*



Note. \*  $N_{domestic}=493$ ,  $N_{foreign}=44$

Note. \* In cases where the sum of the percentages is 99.99% or 100.1% is due to rounding.

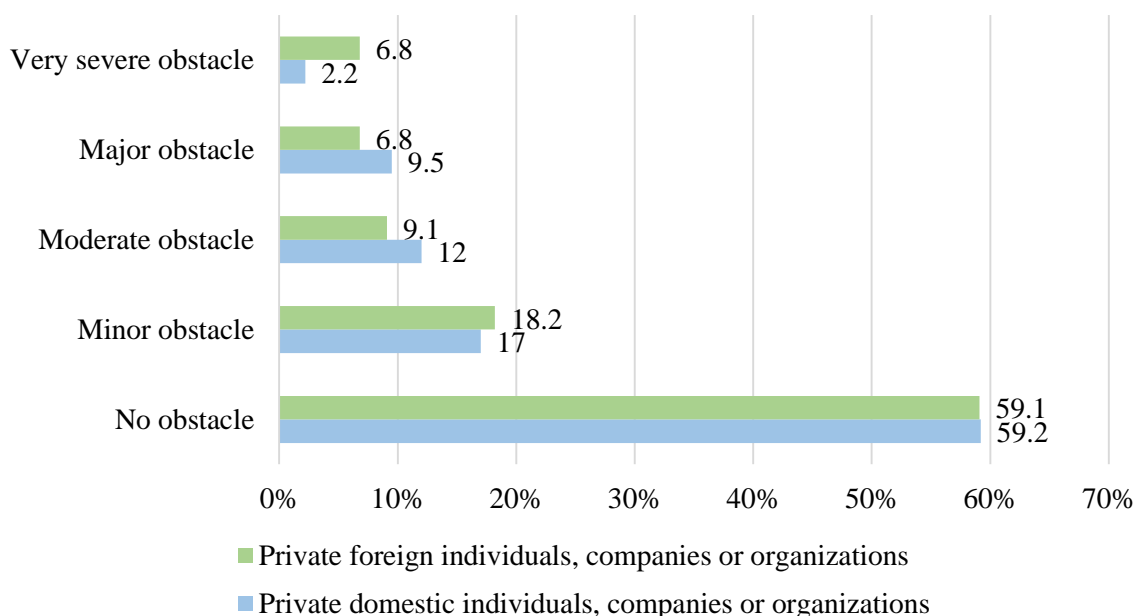
Figure 28 shows how much labor regulations present an obstacle for both domestic and foreign companies. As it can be seen, more than two thirds of the domestic companies perceive labor regulations as no obstacle. The percentage is lower for the foreign companies (54.5%), though still high. However, 27.3% of the foreign companies rate labor regulations as a moderate obstacle and 6.8% as a major obstacle. These percentages are lower for the domestic companies, with 12.8% perceiving labor regulations as moderate obstacle and



4.5% as a major obstacle. Nevertheless, the mean value for domestic companies is 0.59, which means that on average domestic companies find labor regulations as no obstacle to minor obstacle. The mean value for foreign companies is higher (1) and best corresponds to perceiving labor regulations as minor obstacle.

Figure 29 shows how much an inadequately educated workforce presents an obstacle for domestic and foreign companies. The differences among the two groups are incremental. Namely, around 59% of both domestic and foreign companies see an inadequately educated workforce as no obstacle. The major discrepancy is visible in rating an inadequately educated workforce as very severe obstacle, where 6.8% of the foreign companies chose this level compared to only 2.2% of the domestic companies. However, if we take a look at the mean values, we can see that domestic and foreign companies perceive an inadequately educated workforce as no obstacle to minor obstacle, with mean values of 0.78 and 0.84 accordingly.

Figure 29. How much of an obstacle is an inadequately educated workforce? (in %)\*



Note. \*  $N_{domestic}=493$ ,  $N_{foreign}=44$

Note. \* In cases where the sum of the percentages is 99.99% or 100.1% is due to rounding.

The following bullet points briefly summarize the main findings from the survey regarding the **workforce** in Macedonia:

- Foreign companies on average have higher number of production and non-production employees, though the differences in proportion are not insignificant. Namely, foreign companies have three times more production employees and two times more non-production employees than domestic companies. Even more, the ratio of production and

non-production employees for foreign companies is 7:1. The same ratio for domestic companies is around 4:1.

- Foreign companies on average have higher number of skilled production workers and lower number of unskilled production workers compared to domestic companies. Consequently, domestic companies perform formal training on higher number of production as well as non-production workers than foreign companies. However, foreign companies in general provide more formal training than domestic companies.
- The average percent of employees that have obtained university degree is higher for foreign companies. Total annual labor costs on average are higher for foreign companies than domestic companies.
- Domestic companies find labor regulations as no obstacle to minor obstacle. Foreign companies perceive labor regulations as minor obstacle.
- The difference among domestic and foreign companies regarding the rating of inadequately educated workforce is incremental. Both groups find inadequately educated workforce as no obstacle to minor obstacle.

### 5.3 Hypothesis testing

In this section, I will test the hypotheses in order to answer my research questions.

Hypothesis 1: Ownership type influences the innovation intensity in companies.

To test whether relationship between ownership type and innovation exists, the non-parametric Chi-square test of independence is used. The choice of the test was based on the characteristics of the data. Namely, both of the variables are qualitative and categorical.

*H0*: There is no association between the ownership type and innovation intensity.

*H1*: There is association between the ownership type and innovation intensity.

As a measure of innovation, I used the investment in R&D. The SPSS output in Table 1 in Appendix 1 shows the results of this test hypothesis. Namely, the value of the chi-squared statistic is .952 and has one degree of freedom. Since the p-value (.329) is larger than  $\alpha$  (.05), **we fail to reject the null hypothesis**. This means that **there is insufficient evidence to conclude that the ownership type influences whether the company invests in R&D or not**.

I would say that this result is expected. Figure 11 shows that the difference in investment in R&D between domestic and foreign companies is not that big and the chi square further proves that this difference in investment patterns is insignificant. Based on the rankings by the Global Competitiveness Index (GCI), Macedonia has noticed a jump of 34 positions from 2007 to 2015 (from 94 to 60 position). In large part, this was due to the higher rankings in

the subindex for Innovation where Macedonia has improved its rank position from 105 in 2007 to 58 in 2015 (World Economic Forum, 2008 & 2015). This implies that Macedonian companies are working hard to keep up with the competitors and are highly investing in innovation.

Hypothesis 2: The level of innovation is the same for domestic and foreign companies.

To examine whether the level of innovation is dependable from the ownership type, the non-parametric Mann-Whitney U Test is used for comparing the means of two independent samples. The choice of the test was based on the nature of the data, or more specifically the data analyzed is not normally distributed, and both qualitative and numerical variables are present.

*H0*: Foreign companies on average invest less in R&D than domestic companies.

*H1*: Foreign companies on average invest more in R&D than domestic companies.

Table 3 in Appendix 1 provides the results from this hypothesis testing. In this case, the exact significance (2-tailed) p- value will be used since the sample is lower than 61. Nevertheless, the result is the same in both cases i.e. the p-value (.171) is higher than  $\alpha$  (.05). This means that **we fail to reject the null hypothesis**. Thus, **there is no statistically significant difference in the amount spent in R&D between domestic owned and foreign owned companies**.

The analysis of the sample gives the following results: the average amount spent on R&D for domestic companies is 1,991,725 denars (around 32,228 euros), compared to the average value of 1,700,000 denars (around 27,508 euros) for the foreign companies. However, I would say that the results from the hypothesis testing are unexpected. Namely, I was expecting that foreign companies will invest larger amount of money in R&D since they have cheaper access to finance on the international capital market. Moreover, the theory suggest that the cost of innovation for foreign companies is lower than for the domestic companies since they already have central research center in their country of origin and the research they are making abroad causes only incremental costs. According to the president of the Chambers of Commerce in Macedonia (2015), the domestic companies are innovative, but so far they were lacking assets for innovation.

Hypothesis 3: Ownership type is related to collateral requirement during financing.

In order to test the relationship between the two qualitative variables- ownership type and collateral requirement, the non- parametric Chi Square Test of Independence is used.

*H0*: There is no association between the ownership type and collateral requirement.

*H1*: There is association between the ownership type and collateral requirement.

There is a note under the Table 4 (Appendix 1), saying that 1 cell (25%) have expected count less than 5 and that the minimum expected count is 1.93. This value should be equal or less than 20% which means that one of the assumption of chi square test is violated. That is why we will take the Likelihood ratio as a relevant test in this case. Namely, the Likelihood ratio has value .632 and 1 degree of freedom. The p-value associated with the Likelihood ratio is .427 and it is larger than  $\alpha$  (.05). Therefore, **we fail to reject the null hypothesis**. This means that **there is insufficient evidence to conclude that the ownership type influences whether the company was required collateral during financing or not**.

I would say that this result is quite expected. The conventional thinking has it that if the company is eligible for taking on a debt exposure and fulfills the necessary requirements, there is no reason why it would have special collateral requirements if the ownership of the company is foreign. Moreover, on several occasions, it was promoted by the National Central Bank that all the banks in Macedonia have equal treatment for both foreign and domestic companies.

Hypothesis 4: Access to finance is different for domestic and foreign companies.

The data about access to finance is gathered on a 5 score Likert scale (no obstacle=0, minor obstacle=1, moderate obstacle=2, major obstacle=3, very severe obstacle=4). It is ordinal scale data and the two sample t-test is used for comparing the equality of means.

*H0*: Foreign and domestic companies have equal access to finance.

*H1*: Foreign and domestic companies have different access to finance.

The result of this test is presented in Table 5 (Appendix 1). First, we look at the Levene's test for equality of variances to determine which row we are going to use to determine the final results or conclusions of the test. Since the p-value (Sig=.14) for the F-test is higher than  $\alpha$  (.05), the variances are assumed to be equal and we look at the upper row (marked with red rectangular). Next, we can see that the t-value is 1.85 and the p-value for the t-test is .065. Since the p-value (.065) is bigger than  $\alpha$  (.05), **we fail to reject the null hypothesis**. In conclusion, **there is no statistically significant evidence to support the hypothesis that ownership type affects the access to finance**.

This outcome is anticipated. As I mentioned before, the banking sector in Macedonia provides equal access to finance to all companies regardless of their ownership type. However, it is really not that common for foreign companies to take loans from the host country since they have access to the international capital markets with much lower interest

rates. Moreover, if foreign companies are in need for additional financial assets, it is more likely that they will borrow money from their parent company.

Hypothesis 5: The labor costs are different for domestic and foreign companies.

Since the data analyzed is not normally distributed, the non-parametric Mann-Whitney U Test is used for comparing the means of two independent samples.

*H0*: Foreign companies on average have lower labor costs than domestic companies.

*H1*: Foreign companies on average have higher labor costs than domestic companies.

The result of this hypothesis testing is presented in Table 7 (Appendix 1). The value of the Mann Whitney U score is 3047.5. The p-value equals .000 and it is lower than  $\alpha$  (.05). Thus, **we reject the null hypothesis**. It can be concluded that **the total labor cost in foreign companies is statistically significantly higher than in domestic companies**.

This result is expected. Namely, this can be explained by the statistics provided above (Table 8 and Table 9 in Chapter 5, section 5.2.2) which show that foreign companies employ more highly educated people than domestic companies as well as more skilled production and non-production employees. As mentioned before, the wages of the employees working for the foreign companies is higher than for the employees working in the domestic companies. The higher labor costs are also connected with the higher number of workers employed in the foreign companies.

Hypothesis 6: Foreign companies perform better on average than domestic companies in terms of sales.

Since the data has no normal distribution, the non-parametric Mann-Whitney U Test is used for comparing the means of two independent samples.

*H0*: Foreign companies, on average do not have bigger sales growth than domestic companies.

*H1*: Foreign companies, on average have bigger sales growth than domestic companies.

The value of the Mann-Whitney U (Table 9, Appendix 1) score is 4762.5 and the p-value associated to it is .619. Since the p-value (.619) is higher than  $\alpha$  (.05), **we fail to reject the null hypothesis**. This means that although the mean rank value indicated that foreign companies had higher sales growth rate, **the difference is not statistically significant between the two groups regarding sales growth**.

I would say that this is not an anticipated result. Foreign companies have broader access and already established market that leads to a stable and increasing exports which ultimately results in high sales growth. Although Macedonia has made an improvement with trade liberalization and has negotiated a lot of bilateral and multilateral agreements, Macedonian companies still have to find ways to compete on the global market to keep or increase their sales. Moreover, the majority of Macedonian companies only sell on the domestic market which, as mention before, is quite modest and small, thus impeding high sales growth rates.

Hypothesis 7: Foreign companies on average have higher increase in labor force than domestic companies.

In order to see whether the increase in employment growth is related to the ownership type, the non-parametric Mann-Whitney U Test is used for comparing the means of two independent samples.

*H0*: Foreign companies on average have lower employment growth rate than domestic companies.

*H1*: Foreign companies on average have higher employment growth rate than domestic companies.

The value of the Mann-Whitney U (Table 11, Appendix 1) score is 6729.5 and the p-value associated to it is .247. Since the p-value (.247) is higher than  $\alpha$  (.05), **we fail to reject the null hypothesis**. This means that even though the mean rank value indicated that foreign companies had higher employment growth rate, **there is no statistically significant difference between the two groups regarding employment growth**.

This outcome is anticipated. Although foreign companies on average employ higher number of people, this does not mean that they have higher employment growth. Even before entering the host market, foreign companies usually know how many job positions they will open. Once the number of planned employees is reached, it rarely occurs that there will be a need for additional employees.

Hypothesis 8: The education level is different for domestic and foreign companies.

Since the data analyzed is not normally distributed, the non-parametric Mann-Whitney U Test is used for comparing the means of two independent samples.

*H0*: Foreign companies on average have lower percentage of employees with university degree than domestic companies.

*H1*: Foreign companies on average have higher percentage of employees with university degree than domestic companies.

The value of the Mann Whitney U score (Table 13, Appendix 1) is 7457.500. The p-value equals .003 and it is lower than  $\alpha$  (.05). Thus, **we reject the null hypothesis**. It can be concluded that **the percent of employees with university degree in the foreign companies is statistically significantly higher than in the domestic companies**.

This result is expected. One of the reasons why foreign companies come to Macedonia is because it offers a well-educated and highly skilled workforce for low costs. As mentioned before, the wages in Macedonia are considerably lower than in Western Europe. It is expected that foreign companies will hire more university degree workers since they can afford having them.

## CONCLUSION

FDI inflows have been seen positively by many countries which in turn have developed various measures in order to bring international companies. FDI inflows are most frequently seen as a mean for creating new jobs and bringing high level technology and superior organizational practices. They also reflect the productivity performance of an economy.

Yet, there are a lot of debates, studies and theories whether FDI can have the same positive effect on every country. After an extensive research, I came to the conclusion that FDI's impact is unique and specific to each country. Moreover, it is not enough to only attract FDI, but rather to provide collaborative environment for both domestic and foreign companies.

Since FDI is very popular topic in Macedonia and since the government is trying to attract foreign investors by offering different attractive packages, I wanted to see whether the benefits of having foreign investments in Macedonia justify the costly incentives given to foreign investors. For instance, I wanted to examine whether there is a relationship between ownership structure and other variables, such as innovation, access to finance and workforce. Consequently, I wanted to check the firms' behavior under consideration of the ownership type.

The analysis has revealed that foreign ownership does not necessarily affect the level of innovation in Macedonia, nor the amount spent on R&D. This being said, Macedonian companies are trying to cope with the global competition by investing as much as possible in introduction of new products and new marketing, organizational and business practices.

Furthermore, the analysis has confirmed the equal access to finance to all companies regardless of their ownership type. Domestic and foreign companies are equally treated in regards to the collateral requirements needed for credit exposure. Consequently, access to finance in Macedonia on average is perceived as minor to moderate obstacle by both domestic and foreign companies.

Foreign companies take maximum advantage of the disposable workforce in Macedonia. Namely, they employ well-educated, highly skilled employees for wages significantly lower than that in Western Europe. Contrary to this, domestic companies employ lower number of employees who have acquired university degree and the number of unskilled workers is higher. Moreover, there is statistically significant difference in the labor costs among foreign and domestic companies. Nonetheless, the hypotheses testing did not confirm the presumptions that foreign companies have higher sales growth and employment growth rates.



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## **APPENDIXES**



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## Appendix A: Hypotheses testing outputs

Table 1. Chi-Square test output (Hypothesis 1)

Chi-Square Tests					
	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.952 <sup>a</sup>	1	.329		
Continuity Correction <sup>b</sup>	.638	1	.424		
Likelihood Ratio	.940	1	.332		
Fisher's Exact Test				.379	.211
Linear-by-Linear Association	.949	1	.330		
N of Valid Cases	357				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 15.24.

b. Computed only for a 2x2 table

Table 2. Table of Ranks (Hypothesis 2)

Ranks				
Type of ownership		N	Mean Rank	Sum of Ranks
Amount spent on research and development in last fiscal year	Private domestic individuals, companies or organizations	31	17.13	531.00
	Private foreign individuals, companies or organizations	4	24.75	99.00
	Total	35		

Table 3. Test Statistics Table (Hypothesis 2)

Test Statistics <sup>a</sup>	
	Amount spent on research and development in last fiscal year
Mann-Whitney U	35.000
Wilcoxon W	531.000
Z	-1.403
Asymp. Sig. (2-tailed)	.161
Exact Sig. [2*(1-tailed Sig.)]	.176 <sup>b</sup>
Exact Sig. (2-tailed)	.171
Exact Sig. (1-tailed)	.086
Point Probability	.005

a. Grouping Variable: Type of ownership

b. Not corrected for ties.

Table 4. Chi-Square test output (Hypothesis 3)

Chi-Square Tests					
	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.537 <sup>a</sup>	1	.464		
Continuity Correction <sup>b</sup>	.115	1	.735		
Likelihood Ratio	.632	1	.427		
Fisher's Exact Test				.703	.402
Linear-by-Linear Association	.535	1	.464		
N of Valid Cases	282				

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 1.93.

b. Computed only for a 2x2 table

Table 5. t-test for Equality of Means (Hypothesis 4)

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
How much of an obstacle is: access to finance	Equal variances assumed	2.227	.136	1.853	532	.065	.380	.205	-.023	.783
	Equal variances not assumed			2.050	53.339	.045	.380	.186	.008	.752

Table 6. Table of Ranks (Hypothesis 5)

Ranks				
Type of ownership		N	Mean Rank	Sum of Ranks
Total labor cost (incl. wages, salaries, bonuses, etc.) in last fiscal year	Private domestic individuals, companies or organizations	457	235.67	107700.50
	Private foreign individuals, companies or organizations	36	390.85	14070.50
	Total	493		

Table 7. Test Statistics Table (Hypothesis 5)

Test Statistics <sup>a</sup>	
	Total labor cost (incl. wages, salaries, bonuses, etc) in last fiscal year
Mann-Whitney U	3047.500
Wilcoxon W	107700.500
Z	-6.293
Asymp. Sig. (2-tailed)	.000

a. Grouping Variable: Type of ownership

Table 8. Table of Ranks (Hypothesis 6)

Ranks				
Type of ownership		N	Mean Rank	Sum of Ranks
Sales growth rate	Private domestic individuals, companies or organizations	389	207.24	80617.50
	Private foreign individuals, companies or organizations	26	219.33	5702.50
	Total	415		

Table 9. Test Statistics Table (Hypothesis 6)

Test Statistics <sup>a</sup>	
	Sales growth rate
Mann-Whitney U	4762.500
Wilcoxon W	80617.500
Z	-.497
Asymp. Sig. (2-tailed)	.619

a. Grouping Variable: Type of ownership

Table 10. Table of Ranks (Hypothesis 7)

<b>Ranks</b>				
Type of ownership		N	Mean Rank	Sum of Ranks
Employment growth rate	Private domestic individuals, companies or organizations	449	239.99	107754.50
	Private foreign individuals, companies or organizations	34	268.57	9131.50
	Total	483		

Table 11. Test Statistics Table (Hypothesis 7)

<b>Test Statistics<sup>a</sup></b>	
	Employment growth rate
Mann-Whitney U	6729.500
Wilcoxon W	107754.500
Z	-1.158
Asymp. Sig. (2-tailed)	.247

a. Grouping Variable: Type of ownership

Table 12. Table of Ranks (Hypothesis 8)

<b>Ranks</b>				
Type of ownership		N	Mean Rank	Sum of Ranks
% employees at end of fiscal year with a university degree	Private domestic individuals, companies or organizations	490	260.72	127752.50
	Private foreign individuals, companies or organizations	42	333.94	14025.50
	Total	532		



Table 13. Test Statistics Table (Hypothesis 8)

Test Statistics <sup>a</sup>	
	% employees at end of fiscal year with a university degree
Mann-Whitney U	7457.500
Wilcoxon W	127752.500
Z	-2.981
Asymp. Sig. (2-tailed)	.003

a. Grouping Variable: Type of ownership

## Appendix B: List of abbreviations

<b>AD</b>	Akcionersko Društvo (Joint-Stock Company)
<b>BEEPS</b>	Business Environment Enterprise Performance Surveys
<b>CME</b>	Contract Manufacturing Enterprise
<b>DOO</b>	Društvo so Ogranicena Odgovornost
<b>DOOEL</b>	Društvo so Ogranicena Odgovornost na Edno Lice
<b>EBRD</b>	European Bank for Reconstruction and Development
<b>EU</b>	European Union
<b>FDI</b>	Foreign Direct Investment
<b>FPI</b>	Foreign Portfolio Investment
<b>GCI</b>	Global Competitiveness Index
<b>GDP</b>	Gross Domestic Product
<b>JTD</b>	Javno Trgovsko Društvo (General Partnership)
<b>KD</b>	Komanditno Društvo (Limited Partnership)
<b>KDA</b>	Komanditno Društvo so Akcii (Limited Partnership with shares)
<b>MBDP</b>	Macedonian Bank for Development Promotion
<b>MNE</b>	Multinational Enterprises
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>OLS</b>	Ordinary Least Squares
<b>R&amp;D</b>	Research and development
<b>ROA</b>	Return on assets
<b>SME</b>	Small and medium-sized enterprises
<b>TD</b>	Trgovec Poedinec (Sole Proprietor)
<b>TIDZ</b>	Technological–Industrial Development Zone
<b>UNCTAD</b>	United Nations Conference on Trade and Development
<b>VAT</b>	Value-added tax

## Appendix C: Povzetek

V ekonomski literaturi je veliko pozornosti pritegnilo dejstvo, da so podjetja v tuji lasti na splošno boljša od domačih podjetij. Študije kažejo, da si podjetja v tuji lasti in tista, ki so del multinacionalk lastijo kakovostnejša osnovna sredstva, so bolj aktivna v raziskavah in razvoju ter zaposlujejo višje kvalificirano delovno silo, kot domača podjetja. Nadalje, se oba tipa podjetij med seboj razlikujeta tudi v njihovih sposobnostih pri kreiranju novih produktov ter vpeljave inovacij na trg. Ta razhajanja med prvimi in drugimi posledično vodijo do razlik pri ustvarjanju delovnih mest (Dachs & Peters, 2013).

Podjetja v tuji lasti namreč zaradi hitrejše rasti in širitve poslovanja ustvarijo večje število prostih delovnih mest v primerjavi z domačimi, kar vodi do večje zaposlenosti. Poleg slednje, imajo podjetja v tuji lasti tudi bolj intenzivne programe usposabljanja kar pa nakazuje tudi na dejstvo, da je hkrati manj verjetno, da manjša, lokalna podjetja ponujajo tovrstne dejavnosti (Colombano & Krkoska, 2006).

Kljub temu, pa vlade držav v prehodnem območju, v luči svetovne finančne krize še naprej iščejo načine za oživljanje gospodarske rasti. Eden izmed teh je postopno ustvarjanje ugodnejšega poslovnega okolja za tuje investitorje ter privabljanje TNI, katere omogočajo vstop na mednarodne trge ter rast domačega izvoza, zmanjšanje brezposelnosti ter prenos novih tehnologij in organizacijskega znanja, kar posledično vodi k večji produktivnosti.

Pritok tujih naložbenih investicij je pomemben vir financiranja za države v razvoju. Zaradi povečanja mednarodnih tokov kapitala v zadnjih treh desetletjih, pa se vedno večja pozornost namenja predvsem vprašanju vpliva TNI na delovanje in poslovanje korporacij ter samih gospodarstev.

Kljub temu, da obstajajo študije, ki potrjujejo dejstvo, da povečanje tujih lastništev povečuje uspešnost podjetij (Gurbuz & Aybars, 2010), pa se TNI ne morejo upoštevati kot sredstvo za razvoj težav v pravnem okviru države in institucionalnem okolju (Svejnar, 2002).

Že dolgo časa vpliv TNI predstavlja sporno vprašanje med akademiki in oblikovalci politike. Največji izziv v številnih mednarodnih raziskavah predstavlja vprašanje vpliva ter pozitivnih in negativnih učinkov pridobljenih s strani TNI. Zato, vse splošno velja, da imajo TNI ključno vlogo pri gospodarski rasti ter razvoju države zlasti v primeru držav v razvoju in držav v tranzicijskem prehodu (Görg & Greenaway, 2004).

TNI so zelo pomembne za države v razvoju, saj:

- omogočajo prenos tehnologij in organizacijskega znanja, kar vodi k večji produktivnosti
- pomagajo pri oblikovanju človeškega kapitala in razvoju delovne sile
- omogočajo dostop do mednarodnih kapitalskih trgov

- prispevajo k integraciji mednarodne trgovine
- pomagajo ustvariti bolj konkurenčno poslovno okolje

V sami literaturi je potrjeno ogromno število spremenljivk, ki pomagajo obrazložiti vpliv TNI. Mnoge med njimi predstavljajo del formalnih hipotez ali teorij o TNI, medtem, ko so druge podprte zaradi logične razlage, ki jo ponujajo. Nekatere med njimi so: velikost trga, odprtost, stroški dela in produktivnost, politično tveganje, infrastruktura, rast ter davek.

Ugotovljeno je bilo, da so spodaj navedeni razlogi najbolj pomembni za podporo trditvi, ki pravi, da tuja podjetja poslujejo boljše od domačih:

- Posedovanje odmevne tehnologije in intenzivno vlaganje v raziskave in razvoj ter inovacije.
- Zaposlovanje visoko usposobljenega kadra ter implementacija nenehnih programov usposabljanja za zaposlene.
- Večje možnosti dostopa na mednarodni finančni trg.

Spodnje alineje na kratko povzemajo glavne ugotovitve iz raziskave o inovativnosti v Makedoniji:

- Podjetja v tuji lasti predstavijo trgu večje število novih izdelkov ali storitev v primerjavi s podjetji v domači lasti ter namenijo več denarja za raziskave in razvoj.
- Podjetja v tuji lasti pogosteje prekinijo z vsaj eno linijo izdelkov ali storitev kot pa domača podjetja ter istočasno nadgradijo večje število obstoječih proizvodov in storitev.
- Podjetja v tuji lasti uvedejo večje število načinov nove proizvodnje/načinov za dobavo, novih praks v organizacijah za upravljanje in strukturo ter novih tehnik trženja v primerjavi z domačimi podjetji. Toda, tako domača kot tudi tuja podjetja se bolj osredotočajo na implementacijo novih načinov ureditve upravljanja in strukturnih praks ter postavljajo naložbe v tržne metode na drugo mesto. Naložbe v iskanje novih načinov proizvodnje/tehnike dobave so manj prisotne.
- Oboja, tako domača kot podjetja v tuji lasti stremijo k uporabi promocij, ki temeljijo izključno na trudu in sposobnosti posameznika, saj to predstavlja glavni način promocije zaposlenega samega.

Spodnje alineje na kratko povzemajo glavne ugotovitve iz raziskave o dostopu do finančnih sredstev v Makedoniji:

- Oboja, tako podjetja v domači kot tuji lasti, pogosteje za dostop do finančnih sredstev uporabljajo posojila in kredite kot pa limit.
- Vsa podjetja v tuji lasti dostopajo do finančnih sredstev pri privatnih komercialnih bankah, medtem, ko pri njih dostopa do sredstev le 93,3% podjetij v domači lasti. Slednja (4,9%) dostopajo do finančnih sredstev tudi pri državni banki t.j. Makedonski banke za razvojot, katere glavni cilj je podpora domačemu gospodarstvu.

- Okoli 94% tujih podjetij mora zagotoviti jamstvo za posojilo ali kredit in le 88% domačih podjetij. Manjši procent gre zapisati predvsem dejstvu, da so višine posojil domačim podjetjem v povprečju manjše od tistih tujim podjetjem. Dodatno, je višina jamstva odvisna tudi od dolžine posojila/kredita ter nenazadnje od vrste paketa za kredit. Nekaterim skupinam podjetij so namreč ponujeni posebni paketi za kredite.
- Najbolj pogosta vrsta jamstev zahtevana s strani bank tako za domača kot tuja podjetja so zemljišča in stavbe v lastništvu samega podjetja ter osnovna sredstva in materiali. Največja razlika se pojavi le, ko je jamstvo s strani podjetja v osebnem lastništvu (npr. hiša), kjer banke v primeru tujih podjetij zahtevajo manjšo višino le tega jamstva v primerjavi z domačimi podjetji.
- Glavni razlog za zmanjšanje zahtev za nova posojila in kredite s strani obeh tipov podjetij je zmanjšanje potreb za dostop do finančnih virov v primeru, ko ima podjetje dovolj osnovnega kapitala, kot drugi razlog pa se navajajo neugodne obrestne mere.
- V povprečju tako domača kot tuja podjetja ocenjujejo dostop do finančnih virov v Makedoniji, kot manjšo do zmerno velikost ovire.

Spodnje alineje na kratko povzemajo glavne ugotovitve iz raziskave o delovni sili v Makedoniji:

- Podjetja v tuji lasti imajo v povprečju večje število zaposlenih tako v proizvodnji kot administraciji. In sicer imajo tuja podjetja do trikrat več zaposlenih v proizvodnji in do dvakrat več zaposlenih v administraciji v primerjavi z domačimi podjetji. Razmerje med proizvodnimi delavci in ostalimi je za tuja podjetja 7:1, med tem ko je za domača podjetja 4:1.
- Tuja podjetja imajo v primerjavi z domačimi v povprečju višje število visoko kvalificiranih delavcev in nižje število neusposobljenih delavcev v sami proizvodnji. Posledično so zato domača podjetja primorana izvajati usposabljanja tako za proizvodnje delavce kot vse ostale bolj pogosto. Kljub temu, pa še vedno drži dejstvo, da tuja podjetja zagotavljajo več strokovnih usposabljanj kot podjetja v domači lasti.
- Povprečni delež zaposlenih, ki imajo univerzitetno izobrazbo je višji v tujih podjetjih, pravtako pa je v slednjih v povprečju višji tudi letni strošek dela na zaposlenega.
- Domačim podjetjem regulacije na trgu dela ne predstavljajo ovir, med tem, ko tuja podjetja slednje ocenjujejo kot manjše skoraj zanemarljive ovire.
- Niti domača niti tuja podjetja nimajo težav z nezadostno izobraženo delovno silo in slednje na lestvici oboja ocenjujejo kot manjšo vrsto ovire.

Ker so TNI izredno priljubljena tema v Makedoniji in ker vlada skuša privabiti tuje investitorje na vse mogoče načine, sem hotela predvsem preveriti ali koristi le teh resnično upravičujejo njihova sredstva. Med drugim sem hotela preveriti ali obstaja povezava med lastniško strukturo in ostalimi spremenljivkami kot so, inovacije, dostop do finančnih virov in delovne sile. Posledično sem zato želela z vidika različnih tipov podjetij preveriti tudi obnašanje le teh.

Analiza je pokazala, da tuje lastništvo nima nujno vpliva na stopnjo inovativnosti znotraj države (Makedonija), niti na velikost zneska namenjenega za raziskave in razvoj. Glede na ravnokar omenjeno dejstvo je iz analize razvidno, da poskušajo makedonska podjetja biti kos svetovni konkurenci predvsem tako, da v čim večji meri namenjajo največje število investicij prav v uvajanje novih izdelkov ter uvajanje novih tržnih, organizacijskih in poslovnih praks.

Dodatno je analiza potrdila, da imata obe vrsti podjetij enak dostop do financiranja. Pravtako so oboja obravnavana enakopravno z vidika zahtev za jamstva v primeru poseganja po kreditih in posojilih. Posledično se dostop do financiranja v Makedoniji v povprečju dojema kot majhna do zmerna ovira s strani tako domačih kot tujih podjetij.

Tuja podjetja maksimalno izkoristijo prednosti razpoložljive delovne sile v Makedoniji. Zaposlujejo namreč visoko izobraženo in visoko kvalificirano delovno silo za občutno nižje stroške v primerjavi s stroški dela v zahodni Evropi. Nasprotno domača podjetja zaposlujejo manjše število ljudi z univerzitetno izobrazbo, pravtako pa je večje število nižje kvalificiranih zaposlenih. Zato obstaja statistično dokazana razlika v stroških dela med domačimi in tujimi podjetji. Ne glede na to, pa testiranje hipotez ne potrjuje argumentov, ki pravijo, da imajo tuja podjetja večjo prodajo in višjo stopnjo rasti zaposlovanja.