ESTIMATING BRAZILIAN FDI MOTIVATIONS IN PORTUGAL BY STRUCTURAL EQUATIONS MODEL (SEM)

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Abstract:
Portugal is a strategic regional location for multinational companies (MNEs) from various countries. This article, through a model based on structural equations (Structural Equations Model), will address the motivations of Brazilian companies to invest in this country compared with firms of other nationalities, which are represented by German companies, Italian, Spanish, American and Japanese. The structural equations allow to infer the safety test results and theoretical constructs. From a theoretical model (known as "structural") constructed from a measurement model (or measurement) is scanned a set of dependency relations, linking the constructs of the hypothesized model. The structural equation modeling is suggested by Hair Jr. et al. (2006) for three purposes: confirming models, evaluation of competing models and the development of new models. In this study, we opted for the development of models related to the first situation, namely the confirmation of a particular model from a theory of FDI. This article has the following structure: first, it will enter the Portuguese economy from the twentieth century. Soon after, it will analyze the internationalization of the Portuguese economy, particularly foreign investment in Portugal. Thirdly, it will put the analysis model, with its conclusions regarding the differences and similarities in the determinants of investments between Brazilian companies and other nationalities in the decision to settle in Portugal, for example, the influence of linguistic affinity and logistics, respectively.

KEY WORDS: Structural Equations Model, Portuguese economy, investments, Brazilian companies, nationalities.
JEL classification: E22, F21, H54

1. AN EARLY EVOLUTION OF PORTUGUESE

Over the past century, Portugal was an underdeveloped economy and, progressively, turned to a developed country. From a per capita income of 1068 euros in 1910, rose to 13,383 euros in 2010. In order to contextualize the foreign direct investment in Portugal, we start with a brief evolution of the Portuguese economy since 1910 until now, trying to integrate the development of the country in the European Union. To achieve this objective, we use the classification of Mateus (2006), which divided the Portuguese in four growth stages, and it was after 1950 that growth accelerated significantly. Among the EU countries (12), Portugal was the one that has the highest growth rate in the last 55 years, with about 3.7% a year, though this growth has virtually stagnated in the 2000s.

According to the author, during the First Republic (1910-1926) the country was dominated by political instability and social participation in the First World War, leading to macroeconomic imbalances and inflation. Since 1930 there have been two decades of slow growth, but that would create the conditions for sustained growth of the country. Portugal's position as a neutral country during World War II helped to improve their reasons for exchanging and accumulating foreign exchange and gold reserves. Portugal was an important supplier of food and raw materials to belligerents, increasing savings and investment. The illiteracy rate dropped from 65% to about 50% during that period, and investment rose from about 8% to about 20% compared to the total GDP of the country in the early 50s. From this period until 1973, was the golden age of Portuguese economic growth, with an annual growth rate of GDP per capita of 5.7% between 1953 and 1973. Contributed to this development the three Growth Plans, the European integration started in 1960 (entry into EFTA), the accession to GATT in 1962, the Marshall Plan aid (albeit rather limited on the amounts), the relative liberalization of economy and the developmental orientation of the period. At this stage, the countries of

southern Europe grew at rates higher than those of Western Europe, is rejoining the international trade flows (which had been broken between the wars), obtaining technology transfer, investment and explosion of tourism and remittances (restoring the balance of payments). The investment rate reaches 36% in 1973, one of the highest in the world (not lowering the average of 23.6% since 1953). The revolution of April 25, 1974 ended the dictatorship and began a process of independence of colonies. The social and political unrest, profound change in ownership, the socialization of the economy and the two great oil shocks led to a period of successive crises in the balance of payments (depletion of foreign reserves of the country agreements with the IMF in 1978 and 1983 and the consequent divergence in living standards compared to Europe, with average growth of 1.8% from 1974 to 1984) was a main facts of this time.

The application of Portugal's accession to the CEE in 1977 and its integration in 1986, were key considerations for increasing economic welfare, as it allowed free movement within the CEE, the transfer of structural funds, the introduction of IVA and the harmonization of economic and commercial law. The integration since 1986 compounded by the rapid economic growth, providing consumers with a greater variety and quality of products, technology transfer, higher productivity of portuguese industry and restoring the balance of payments. EU transfers accounted on average between 1986 and 1992, 1.4% of GDP in net terms. The average number of years of schooling of the population rose from 2.2 years in 1973 to seven years in the mid-1990s. Portugal back to converge to European income levels in 1993 and exceeds the threshold of per capita GDP for developed countries usually considered. As a member of the EU, benefiting from European funds and having to meet the standards required for entry into monetary union. The stabilization policy has produced results in mid-1990, correcting the serious macroeconomic imbalances of the previous two decades. In 2010, the country reached U.S. $ 21235 per capita, with profound changes in terms of infrastructure, industrial park and full integration within Europe.

It is also important to relate the growth of Portugal compared to the world. Maddison (1995) identifies five stages of such growth. The third phase (1913-50) was a very troubled period marked by two world wars, hyperinflation, the Great Depression, protectionism and the collapse of global financial system. The fourth phase (1950-73) known by European historians (Crafs and Toniolo, 1996) as the golden age of growth, with growth rates of technical progress and never seen before, the liberalization of trade and the Bretton Woods system. The last phase, from 1973, notes the slowdown in growth, by the two oil crises, the debt crisis of developing countries and the fall of socialism in Eastern Europe. In the new millennium saw the revolution of information technology, the emergence of global terrorism and the growth of Asian-Pacific region in world GDP, in particular China, a major player in the world of high-growth emerging markets in recent years. At the pace from 1985 to 1995 Portugal needed 12 years to reach the EU average. However, the pace of 1995 to 2009 would take about 50 years. Thus, there was a clear slowdown in convergence in the last decade.

Economic policies geared to boosting private consumption and public debt induces the rise of the public debt in the economy, which was not accompanied by increased total factor productivity, the pace of convergence became untenable. To improve this scenario the structural reforms are vital.

2 THE INTERNATIONALIZATION OF PORTUGUESE AND FDI IN PORTUGAL

The high-tech exports in 1967 represented about 2% of total exports in 2009 reached 13,2%. In the reverse way, the low-tech goods, which encompassed 77% in 1967 and in 2009 dropped to less than half that 1967 amount, 33%. Products like textiles, clothing and footwear, although positioned as low-tech, can invest in quality and design, increasing its value. Vehicles, machinery and mechanical and electrical appliances, such as molds for the plastic industry, electrical wires and cables, transformers and micro electronic form another important group of exports. Modern enterprises with advanced technologies, as Auto-Europe, is important too. Although this process needs to be strengthened, as the example of Quimonda.

This trend continued as Portugal continues to make the reforms necessary to increase the competitiveness of its economy, increasing their attractiveness and thereby participate more in trade flows and investment worldwide. The degree of internationalization of the Portuguese

economy, measured by total exports of goods and services / GDP is still relatively low. In a comparative context, in 1990 and 2010, Portugal did not increase their degree of internationalization in the period, with exports of goods and services / GDP accounting for about 30%. Spain, however, increased from 16.1% to 26.3% and Ireland, from 56.6% to 81.3%, respectively, the degree of internationalization, indicating a faster pace of internationalization[1].

Complementing this analysis, we identified the geographic destination for Portuguese exports. With a small downward trend, we see the huge representation of the EU-15 in total exports from Portugal (about 75% in 2010), in particular the increase of Spain (from 14.8% in 1995 to 28.2% 2008). Currently there are movements, including the support of government agencies that has the objective to diversify its export basket in terms of geography and products, particularly to Asian countries like China (0.1% in 1995 to 0.5% in 2008) and India, Africa (1.7% in 1995 to 4.8 in 2008) and Latin America, including Mexico and Brazil, stable, with about 0.8% and 0.3% of total Portuguese exports, respectively.

- PORTUGAL COUNTRY AS HOST AND INVESTOR OF FDI

FDI has undergone major transformations in the two decades after the Portugal accession to the European Community. In this section, we discuss foreign direct investment in Portugal, and briefly on the Portuguese investments abroad, a new and important reality for the Portuguese economy.

Throughout the nineteenth century, and until now, there are three main stages of FDI in Portugal. The first phase includes the 2nd half of the nineteenth century until the mid twentieth century, predominantly the english capital placed in the industry, the financial sector and the external trade. The second phase begins with the membership of EFTA in 1960 until 1973, within the context of global liberalization and the exhaustion of the current model of development, and the need for public spending cuts stemming from the colonial war. Foreign capital was directed to manufacturing such as textiles and clothing, pulp, electronics to harness natural resources and lower cost of portuguese manpower. The years immediately following April 25 were with political instability.

Since then, the country slowly makes some structural reforms in the economy to regain credibility and begins with the integration of Portugal into de CEE in 1986, the third phase of IDE. Notes the entry of a high capital directed to the financial sector and industry, particularly targeting foreign markets and supermarkets. In 1987 came the first big jump, when FDI almost doubled compared to 1986 (72.9 versus 38.0 billion of escudos). The second time happened to peak around 1990s, corresponding to the privatization process.

Considering the period from the late 1980s, which FDI became the principal route of global integration, the portuguese economy was relatively unattractive, except in a few years. Since 2000, the year large flow of FDI worldwide, there were over 3 years of substantial FDI inflows into Portugal. In 2002 was created the Portuguese Investment Agency (API), currently AICEP in order to develop mechanisms that would facilitate foreign investment in Portugal.

Even with the advancement of FDI in Portugal from the year 2000, there is not a continuing evolution, reflecting an environment more punctual than enduring characteristics of business environment, which is grounded by the country's weak economic growth and other internal vulnerabilities.

Regarding the origin of foreign capital (accumulated net balance between 1996 and 2007 of 40.6 billion euros), we evidence the dominance of the Euro Area countries, with a balance of 67.5%, in particular Spain (35%) and France (8%). Following is the importance of other countries in the Euro Area (24%) and UK (13%), according Bank of Portugal. Germany has negligible positive balance, and Brazil is negative. Here we see the importance of research as case studies because these two countries have, however, many companies in Portugal, with

[1] The actual economic crises show that this is an important factor to economic development, but other elements are important too.

investments in diverse economic sectors. This is evidenced in the next section by a comparative study of some countries investors in Portugal, including Germany and Brazil.
If we show the FDI in Portugal by sectors, is concentrated in the activities of securities business services (60.4%) and financial (12.6%).

3 COMPARATIVE STUDY OF FOREIGN INVESTMENT IN PORTUGAL

This section will be based on empirical research through a questionnaire conducted with MNEs of six nationalities installed in Portugal, about the determinants of FDI identified in eclectic paradigm (Dunning, 2008). We compare the determinants of FDI in Portugal of Brazilian companies in relation to the Italian, American, Japanese, Spanish and German. For this, it will identify a general model, based on the methodology of structural equations (using software SPSS AMOS 6.0), after that measuring the extent to which the motivations of companies vary.

3.1 - Methodology and theoretical aspects of Structural Equations Modeling (SEM)

The methodology used is the data modeling technique of structural equations, which corresponds to the symbol adopted in English Structural Equations Modeling (SEM). This allows the researcher to test hypotheses of relationships among latent variables and observables, being an important resource for evaluating theories and causal relationships (Schuler, 1995, McQuitty, 1999).
Or endogenous latent variables are those that represent the effect of other variables (constructs), similar to the dependent variables in experimental studies (Kline, 1998, p. 16). According to Hair Jr. et al. (2006), are considered manifest variables (also called observable, exogenous or indicators) as observable values for a specific item or issue.
The structural equation models allow to infer safety test results and theoretical constructs. From a theoretical model (known as "structural") constructed from a measurement model, is checked the set of dependency relations, linking the constructs of the hypothesized model.
The measurement model analyzes the structural model from a set of variables examined and related to each latent variable (Hair Jr. et al. 2006; Ullman, 2000).
The structural equation modeling is suggested by Hair Jr. et al. (2006) for three purposes: confirming models, evaluation of competing models and the development of new models. In the first situation, we try to check the adjustment of the statistical model proposed from the theory in order to prove his confirmation or rejection (test the level of adjustment between the model and sample data). In the evaluation of competing models, different theoretical models are compared using formats developed based on theories contrary to or inconsistent with the purposes of identifying the one that best fits the data. The third use concerns the development of models, when it aims to evaluate and improve theoretical models pre-designed, however, require improvements in their statistical adjustment using modifications based on arguments based on theory (MacCallum, 1995). In this study, we opted for the development of models related to the first situation, namely the confirmation of a particular model from a theory of FDI.
For implementation of this strategy were followed steps suggested in the literature on the structural equation modeling (Anderson and Gerbing, 1988; MacCallum, 1995; Hair Jr. et al. 2006; Kline, 1998, Garver and Mentzer, 1999; Ullman, 2000), as well as empirical studies that have employed the technique (Santos, 2001). Initially, models developed measures and structures; thereafter, the data matrix, the technique for estimating and adjustment criteria were defined and, lastly, the constructs in the model measures and the integrated model were evaluated. As a technique for estimating the proposed model, the suggestions were accepted Garver & Mentzer (1999) using the two-step approach (two-step approach), which is characterized by evaluating the measurement model by employing factor analysis that confirms that each individually construct the model (Reise, Widaman, and Pugh, 1993, Garver and Mentzer, 1999).
Demonstrated the appropriateness of the measure are checked hypothesized structural relationships among the latent variables from the estimation of the adjustment measures in the integrated model (Garver & Mentzer, 1999; Ullmann, 2000).
The steps of the process of structural equation modeling are detailed in the following items:

a) Development of Measurement and Structural Models

Before you even deal with the construction of structural models and measurement, the researcher develop a theoretical model to be empirically proven throughout the study. From the proposition of a theoretical model and the definition of relations between constructs, is constituted the path diagram, which consists of graphical and schematic representation of the causal relationships between constructs. In this diagram, the researcher can provide not only the predictive relationships between the constructs (relations between dependent and independent variables), but also the relations of association (correlation) between constructs and indicators (Hair Jr. et al., 2006). With its establishment, it is possible to perform a model specification with the definition of structural equations, their connections between the constructs and measurement model adopted to measure the constructs.

The study model is developed from a theoretical model of definitions and operationalization of variables. It should be noted that the models set out the notation used is as follows:

• "e" corresponds to the measurement errors.
• "rectangles" indicate the manifest variables (observable) of the study.
• "ellipses" correspond to the latent variables or constructs.

b) Selection Matrix Input Method, Estimation and Adjustment Indices

The data matrix used in structural equation modeling is automatically generated from a correlation matrix or a covariance matrix between variables of the model.

The next step to take is to establish how the model will be estimated. Among the existing techniques for estimating parameters, we highlight the Maximum Likelihood (ML) and Standard Generalized Theory Least Squares (GLS), which require the use of metric variables and the normality of their distribution. According to Hair Jr. et al. (2006), the first approach has the advantage of increased efficiency when the assumption of multivariate normality is considered, and is widely used in most software for the structural equation modeling. One limitation of such estimation lies in its susceptibility to the size of the survey sample, since the greater the number of cases under review (over 400 cases), the more sensitive technique to detect differences between data. In this study, we chose to use the Maximum Likelihood.

In assessing the adequacy of the proposed model to the data, adjustment measures were used to verify that enabled the degree which the model predicts the covariance matrix or correlation (absolute measurements) and the comparison of the proposed model with a null model - incremental steps - (Hair Jr. et al., 2006). For purposes of this study, two groups were considered the index below.

- *Index of General Adjustment*

. Chi-square over degrees of freedom: it is an absolute fit index that shows the differences between the observed and estimated matrices, indicating that the greater the magnitude of chi-square relative to degrees of freedom, greater is the differences between the two arrays. Acceptable values for this ratio are less than five (5). Importantly, is an extremely sensitive indicator of sample size for research should not be interpreted in isolation (Anderson and Gerbing, 1988; Hair Jr. et al., 2006).

. Goodness-of-fit (GFI): As no absolute standard that varies from 0 (poor fit) to 1 (optimal setting), based on the comparison of waste arising from the two arrays of data (observed and estimated), with the acceptable values greater than or equal to 0.8.

. Root Mean Square Error of Approximation (RMSEA) index used to correct the trend of the chi-square test to reject specified models from large samples. Is to assess the discrepancy between the degree of freedom of the root mean square of model residues observed and expected squared, with the acceptance ranges between 0.04 and 0.08 (Hair Jr.et al., 2006)

- *Comparative Fit Index*

. Comparative Fit Index (CFI), incremental measure that compares, in aggregate terms, the estimated models and zero or independent. Its range is 0 to 1, with values near 1 indicate satisfactory fit. According to Hair Jr. et al. (2006), is the most appropriate measure for studies that seek to develop models.

- *Indices of parsimony*

Are relative indexes that include a penalty due to the complexity of the model by including more free parameters to improve the adjustment (fewer degrees of freedom). They are represented by indices such as the PCFI PGFI and with acceptable values between 0.6 and 0.8; bad if the values are smaller than this range, and very good if more than these values.

-The evaluation indices of adjustment means allows the researcher to judge the need for potential changes in the proposed model, thereby seeking greater consistency of the constructs and the general model. The reespecification a model should be performed with the theoretical contribution in order to maintain the conceptual logic. Hair Jr et al. (2006) recommend that the model is adjusted from the initial examination of waste, excluding variables that are undermining the covariance model with T-value (or adjusted residue) greater than 2.58. This technique is referred to often by trimming model which is to remove non-significant parameters in the model, while it increases the degrees of freedom associated. Another technique is the analysis of the modification indices (MI) data from one analysis to the values of chi-square test, and that the technique requires the establishment of relationships whose value exceeds 3.84. This approach, like the previous one, is step by step, where the highest values of MI will be those who enter the establishment of new relationships. Finally, the model fitting the data will always support theory as the guideline, and the establishment of new relations from the MI and exclusion of variables and/or meaningless parameters will be considered only if there is a theoretical sense to do so.

The measures outlined above were used in the evaluation of the measurement model or measure, from the detailed individual assessment of each construct that makes up the theoretical model. For purposes of analysis, we considered a set of indicators of adjustment, namely, chi-square and its probability level, the CFI, PCFI, GFI, RMSEA, and the PGFI.

c) Assessment of measurement model

As for the evaluation of the measurement model, Garver & Mentzer (1999) state that the use of confirmatory factor analysis is a technique to verify the proper analysis of each construct or latent variable that forms the proposed model. This technique differs from exploratory factor analysis by allowing researchers to identify the relationship between latent and manifest variables with the greatest degree of control by assigning the indicators of positive charges in his alleged factors and loads restricted to zero in other factors (Hair Jr.et al., 2006). It is usually used as a tool for verifying the validity of constructs and evaluation of measurement scales (Anderson & Gerbing, 1988; Hair Jr. et al., 2006).

In evaluating the properties of a construct, the first point to be diagnosed is to verify the identification of the model. According to Hair Jr. et al. (2006, p.608), the identification problems are characterized by the inability of the model estimates to generate meaningful and logical. One way to generate a greater identification of the model is to fix the value of the variance in the constructs "1", which allows the calculation of load factors of the construct.

The second property to be analyzed is the unidimensionality of the constructs. It is the degree to which the indicators represent a single latent variable or construct (Garver & Mentzer, 1999). A basic condition for the reliability assessment of a construct, represented as indicators of a construct trainers have an acceptable fit for a model with a single factor or dimension (Hair Jr. et al., 2006). In this study, unidimensionality was assessed from the residual analysis for the construct. Unidimensionality is confirmed when the standardized residuals are low (less than 2.58) and a significance level of 5%.

The verification of the validity indicates whether the measurement instrument captures precisely what you want to measure. Among the major forms of validity checked by researchers (Hair Jr. et al., 2006, Churchill, 1999) are: the predictive validity, linked to the prediction accuracy of an external form of behavior as the instrument itself, the content validity, linked to the correspondence between the manifest variables used in the instrument and the theoretical definitions of the construct assessed, the construct validity, which seeks to identify if this indeed is being measured and what are the empirical indicators that relate to their theoretical constructs and is considered both the convergent validity (measures related to the same construct that are correlated) and discriminant validity (divergence measures related

to different constructs) and, finally, the validity, linked to the correspondence of results obtained with formed the theoretical basis.

d) Evaluation of the structural model

The evaluation of structural relationships between hypothesized constructs was performed to evaluate the proposed integrated model. Hereby, we assessed the indicators of adjustment model and the significance and magnitude of the estimated regression coefficients for each structural equation (Hair Jr.et al., 2006, Garver and Mentzer, 1999; Ullman, 2000).

Possessing significant coefficients, there is empirical evidence of the relationship established between the constructs in the model (Hair Jr. et al., 2006). Regarding the use of adjustment measures for model evaluation, Garver and Mentzer (1999) state that with a satisfactory evaluation of these indices within the ranges of acceptability, the model has predictive validity.

Finally, as the findings of the evaluation process of the model, reespecification model can be claimed. This process occurs from the addition or reduction in the number of parameters estimated in the original model, since there is theoretical justification for its achievement (Hair Jr. et al., 2006). Another recommended process improvement model is the comparison of the original model to rival models. From this evaluation, attempts to identify the model that fits better into the survey data, with the premise that, just as the reespecification models require, they have a strong theoretical foundation. Anyway, for the study that was conducted was used to follow the path that presents itself, in line with the theoretical aspects of SEM.

3.2 - The Model Analysis

The model that you want to confirm is based on a questionnaire answered by the Brazilian, Japanese, Italian, German, Spanish and American present in Portugal, through contacts on the spot, mail or telephone, they were 219 validated responses from a total of 250. By country, we are Brazil (50), USA (38), Spain (41), Germany (37), Italy (35) and Japan (18), of various sectors and sizes.

These questions refer to Eclectic Paradigm Approach (factors related to the assets, factors of internalizing and location factors) and Scandinavian school (cultural affinity influence). These questions were answered in Likert scale.

Based on this conceptual model theory, given the large number of manifest variables from the questionnaire, we opted to do a factor analysis to help identify the most relevant for the model. According to the theory of FDI, we thought of the determinants are all interrelated, it was to construct a whole and for the two groups.

After the factor analysis and with the addition and subtraction of other variables contained in the questionnaire, we find three models: model with all countries, with other countries and another with Brazil in order to verify the similarities and the differences between this country and others evaluated in this study regarding the determinants of foreign direct investment in Portugal. Such models are in anexesd below:

Figure 3.1 - General Model with all countries

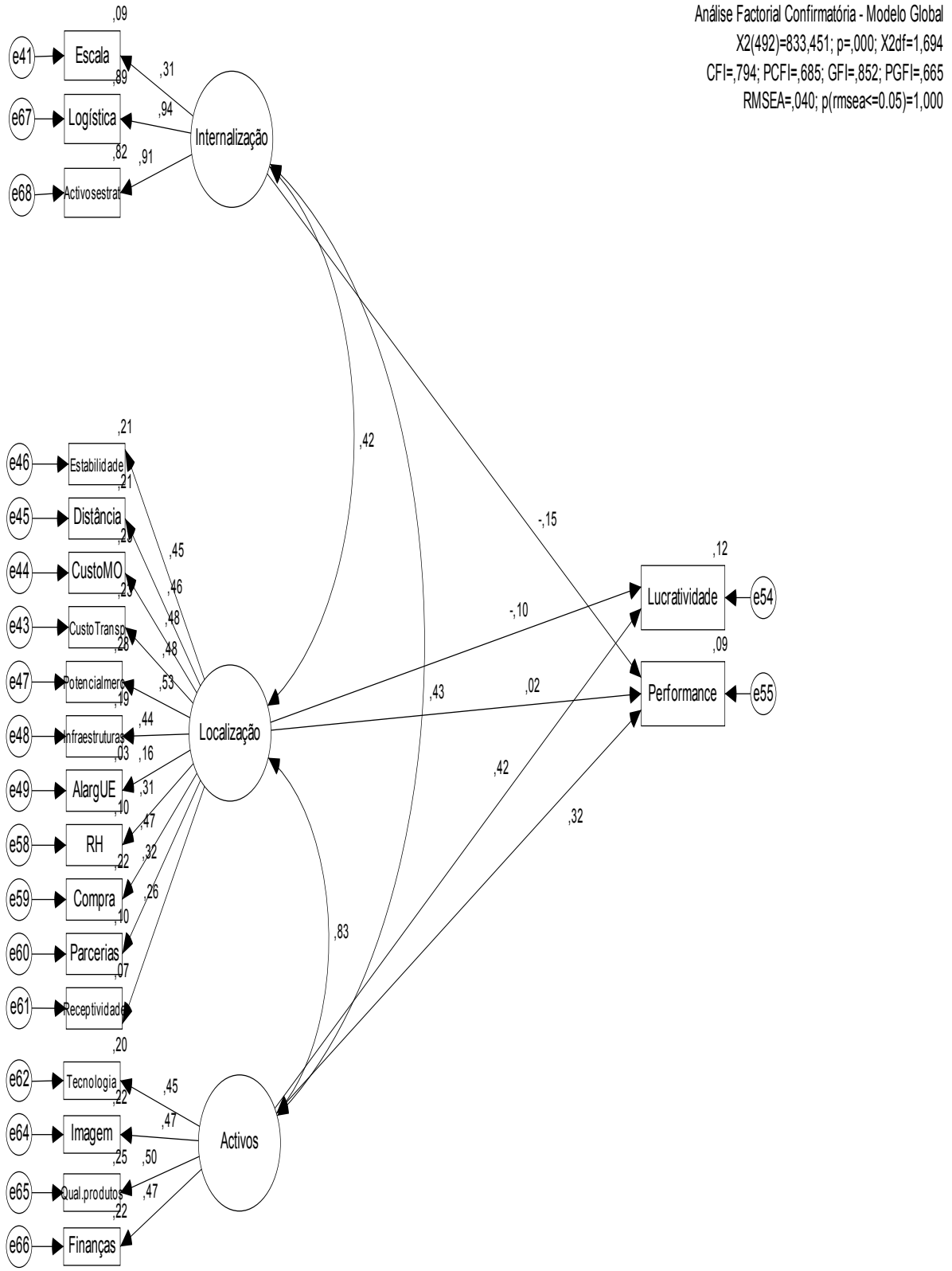


Figure 3.2 – Model with other countries without Brazil

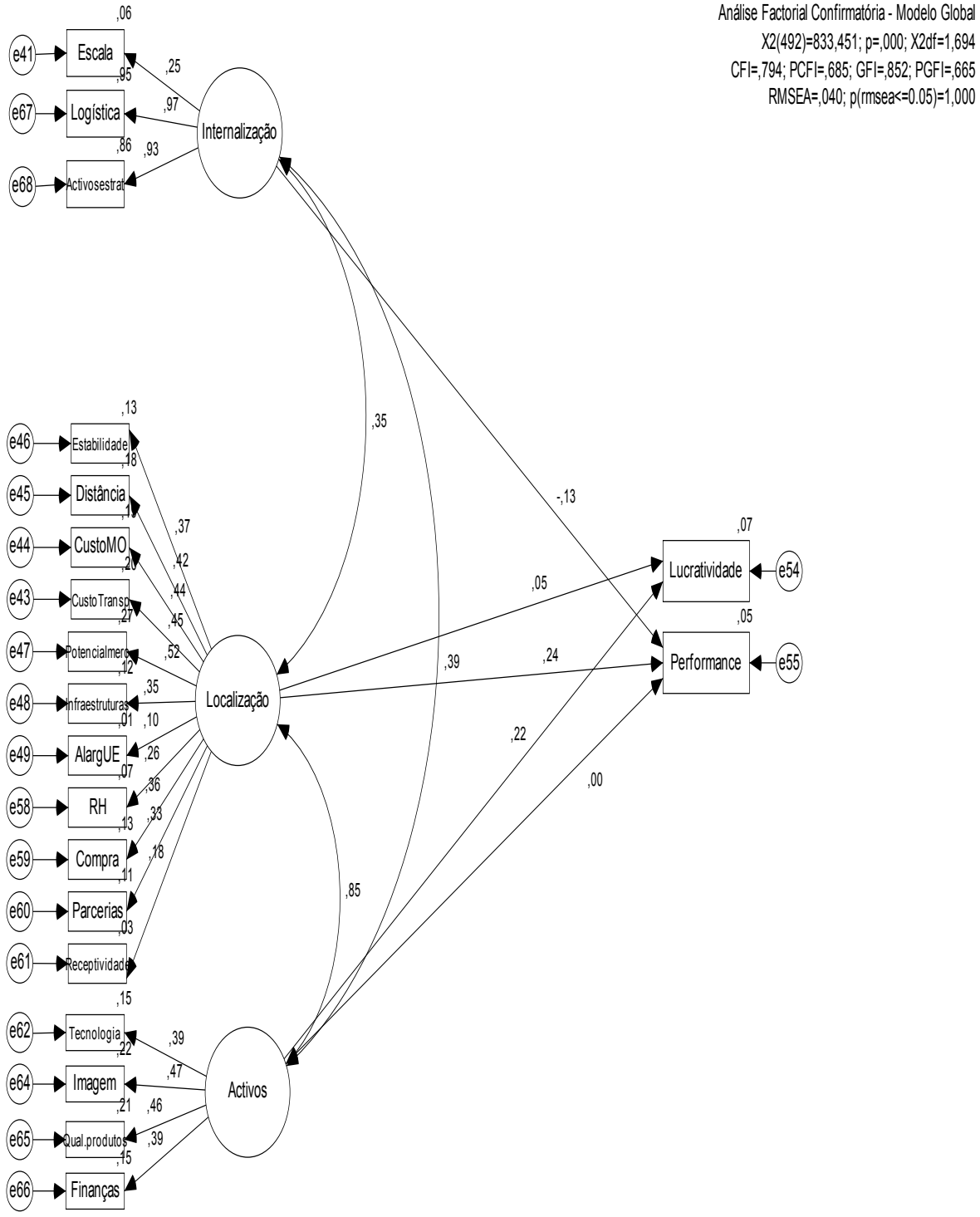
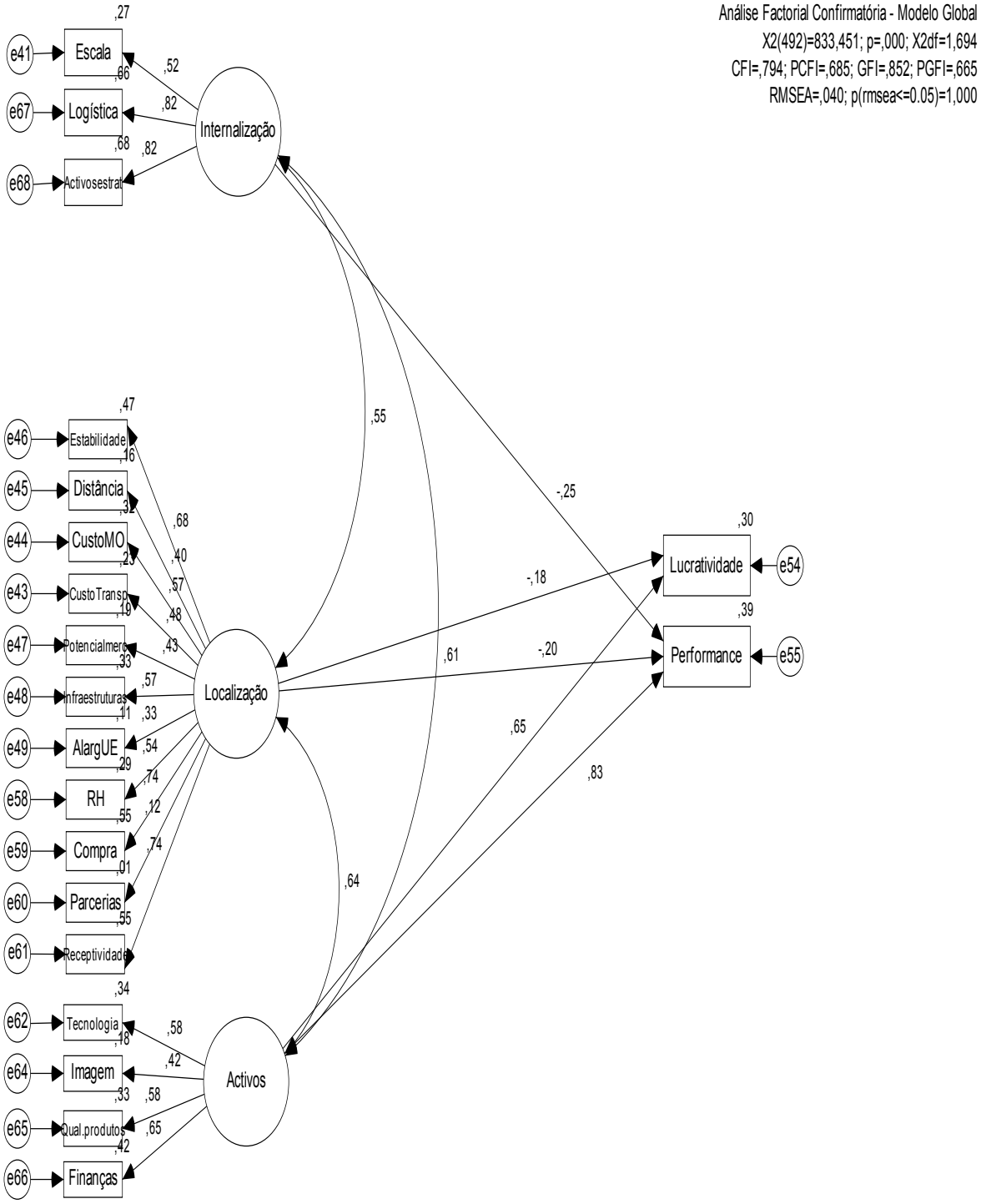


Figure 3.3 – Brazil model



From the model, the sample was divided between Brazil and other countries in order to check whether the model is equivalent between the two groups for analysis. Such models are shown in figures 3.1, 3.2 and 3.3. There has, thus, the comparative analysis between Brazil and other countries (Table 3.1), and tried to respond even if the model fits equally well to the determinants of FDI in Portugal from Brazil and other countries.

. *Model results*

As for the adjustment measures, have the following results:

. X2/df = 1.694 - Very good . P-value = 0.000 - Very good

. CFI = 0.794 - Almost acceptable . PCFI = 0.685 – Acceptable

. GFI = 0.852 – Acceptable . PGFI = 0.665 – Acceptable

. RMSEA = 0.04 – Acceptable

As we can see, the general model and therefore the models for Brazil and other countries have acceptable rates of adjustment, and the overall pattern, therefore, valid also with respect to the results for subgroups other countries and Brazil. Manifest variables and relationships that, in principle, would not explain the investment of foreign companies in Portugal, are important for building the model generally and are essential to determine the model as a whole.

Table 3.1 - Comparative analysis of three models

Variabel	General Model	Other countries	Brazil
Internalization			
Scale	0,31	0,25	0,**52**
Logistic	**0,94**	**0,97**	**0,82**
Strategic Assets	**0,91**	**0,93**	**0,82**
Location			
Estability Portugal	**0,45**	0,37	**0,68**
Geographical distance	**0,46**	**0,42**	**0,40**
Labor costs	**0,48**	**0,44**	**0,57**
Transport costs	**0,48**	**0,45**	**0,48**
Portuguese market potential	**0,53**	**0,52**	**0,49**
Portuguese infrastructures	**0,44**	0,35	**0,57**
European Union enlargement	0,16	0,10	0,33
Human resources disponibility	0,31	0,26	**0,54**
Buy other companies	**0,47**	0,36	**0,74**
Joint ventures	0,32	0,33	0,12
Portugal receptivity	0,26	0,18	**0,74**
Assets			
Tecnology	**0,45**	**0,39**	**0,58**
Image and brand	**0,47**	**0,47**	**0,42**
Product quality	**0,50**	**0,46**	**0,58**
Financial stability	**0,47**	**0,39**	**0,65**
Lucrativity	0,12	0,07	0,30
Performance	0,09	0,05	0,39

We found a high correlation between the location factors and assets (0.83), and this is what best explains the profitability and performance.

In the model of other countries, the correlation between location factors and assets was high (0.85). However, the location seems to be the factor that explains a little more profitability and performance.

Finally, the model related to Brazil, we have a good level of correlation among the three latent variables: location and internalization (0.55), location and assets (0.64), and assets and internalization (0.61), and factors related to the assets which best explain the profit and the practical result. This higher level of correlation between the three latent variables may provide the greatest explanatory power of this model for the dependent variables: profitability and performance, perhaps because the sample is more homogeneous.

It is noteworthy also in relationship to the theoretical aspects, the variable cultural affinity, linked school in Uppsala, was not significant in this model, probably by membership of the sample countries in which this item is irrelevant.

4 – FINAL REMARKS

This paper examined the determinants of investment by multinational companies in Portugal, using the model of structural equations.

We tried, in summary form, describing the evolution of the Portuguese economy since the early decades of last century. It is also showed Portugal as a host of international investment, with an accelerated regional integration of economies and globalization.

In order to see the main motivations of MNEs to invest in Portugal and verify the extent to which the motivations of brazilian companies invest in portuguese market vary ranging from enterprises from Italy, Spain, German, Japan and United States of America, built up a still model based on structural equations. We identified a type invariant for these two groups, with variations in intensity correlations in the motivations for investing in Portugal. Although with the same set of explanatory variables, which is desirable for this type of models, their importance varies according to the motivations of each model.

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