A NEW FRAMEWORK FOR TAX ENFORCEMENT AND AUDIT SELECTION STRATEGY BASED ON THE STRUCTURAL EQUATION MODELS.

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Abstract
This paper aims to provide an extension of the presumptive model for addressing the Hard to Tax question. This study starts from the experience of Italian "Studi di Settore" mechanism (hereafter Sds) for fighting tax avoidance and for selecting small and medium enterprises to be audited in Italy. The Sds is mainly based on the principle that the small or medium enterprises with higher consumes and expenses should have higher turnover. It is demonstrated that this model takes in account only partially important factors that can break this proportionality. The proposed model consists of applying the Structural Equation Model (SEM) into a Universal Framework for all the business sectors with the aim to have a better representation and modelling of the dynamics and behaviours of small and medium enterprises in an Italian-like economic context. It should enable consequential better governance towards the Italian SME landscape.

I. STUDI DI SETTORE (SdS): SETUP AND AT WORK

The Italian "Studi di settore" are based on a statistical procedure for estimating the turnover value for self-employed workers and firms with turnovers of less than 7.5 m euros a year. Sds provides an estimated minimum and punctual turnover for each taxpayer, based on a weighted average of a number of variables (costs and structural variables). The weights depend on the business sector and geographical location [1].

The Sds are built on the base of questionnaire prepared by the RA in collaboration with the Category associations ("Associazioni di Categoria"). The questionnaire contains both fiscal data and organizational information. All the production units belonging to a specific business sector receive the questionnaire. The method consists of applying the PCA for identifying the main factors that contribute to generate the turnover. Then, the cluster analysis is applied for grouping production units that have similar values of selected variables by PCA.

Indicators of coherence, normality and consistency are identified and a baseline is built up by evaluating the ventile distribution of these indicators for each business sector. After removing the production units with anomalous values, the minimum and maximum value for these indicators are determined. They form the baseline for evaluating the taxpayers that belong to that business sector.

Last step is to determine the coefficient of regression multiple function for each cluster in a business sector by stepwise method. This function is a relation between fiscal and structural data and the turnover value. The value is corrected by the territoriality study. The main independent variable is multiplied by a coefficient that is different depending on where the production unit is operating.

One the sector study is built-up, then a taxpayer is assigned to one or more clusters with a different probability of belonging within the declared business sector. The estimated minimum and punctual turnover are computed as pondered average of estimated turnovers for each belonging cluster.

If recorded turnover is in the range between the estimated minimum and the estimated punctual value the taxpayer has the option of reporting the higher value of punctual estimation turnover in his tax return. If this option is not exercised the taxpayer is likely to be audited by the tax administration.

In addition, the Sds use indicators of normality (INE) for evaluating if the taxpayer is manipulating data for making lower the estimated turnover values. In this case the RA can not decide automatically to audit the production unit but needs to have further elements of tax evasion.

The Sds are reviewed and approved periodically for keeping the consistency with the dynamic economical context.

The major point of weakness is related to the data quality. The regression coefficients of each business sector are computed by starting from a selected set of Tax payers with their organizational and fiscal data. Very often it happens that the Tax Payers provide erroneous data that do not correspond to the truth. This is sometimes also due to the complexity of the questionnaire and the complexity of the requested data as well, in other cases it can happen voluntarily. A dedicated Italian commission [18] called for evaluating the Sds, pointed out just the need of introducing a monitoring system of data validation and of simplifying the set of requested data. In relation of this lack, the commission pointed out the need of a deep revision of some specific business sector studies besides the regular and periodical revision.

Another point of weakness is due to the huge number of clusters and business sectors fragmentation. The current status is that there are more than 200 study sectors with more than 2000 clusters where 7.5 millions of economic units are present. The analysis from the Commission pointed out that this number of clusters is not corresponding to the reality; they are not justified from the actual situation of business sectors.

On top of these limits, it is evident that the Sds enlarged the income base of Italian revenue agency. The main reason is probably due to the fact that the presumptive model allows knowing the level of risk to be audited by RA at the same moment of declaring incomes. The benefits of its application are reported in [9].

II. STATE OF THE ART: ITALIAN MECHANISM FOR FIGTHING TAX EVASION

The most relevant literature focuses on the Efficacy of Revenue Agency (RA) strategy versus Hard-to-tax, the Taxpayer behaviour in relation to the RA Tax enforcement strategy versus Tax avoidance, methods for Selecting Taxpayers to Audit (Presumptive vs optimal), and the Effect of Revenue Agency actions for fighting tax avoidance (e.g. letter of non conformity: anomalous filling). We reported hereafter the relevant literature in relation to the Italian case connected directly and indirectly with the SdS,

Giampaolo Arachi and Alessandro Santoro in Tax Enforcement for SMEs: Lessons from the Italian Experience? (2007) [1] explained the SdS and how they can be used as an audit rule or as a presumptive tax. They stated that Sds may be a useful policy tool for establishing presumptive taxation for SMEs in developing countries when resources for tax auditing are scarce.

Alessandro Santoro and Carlo V. Fiorio in Taxpayer behavior when audit rules are know; evidence from Italy (2011) [2] discussed about the peculiar audit scheme (Studi di Settore), for small and medium enterprises and the self-employed adopted in Italy since 1998. The authors study this scheme by means of a theoretical model and they test it using a sample of 23,000 firms in manufacturing sectors in the 2005 tax year. The main conclusion was that when taxpayers know that the probability to be audited decreases, they tend to report less. The same authors explored in Taxpayer response to an increased probability of audit: some preliminary evidence from Italy (2011) [3] the question of data manipulation by Taxpayers and the taxpayers 'response to a letter sent by the Tax Agency informing them that some input data they provided for tax year 2007 were seen as 'anomalous' and that, if repeated for tax year 2008, such a behavior or a similar one would 'certainly' cause the inclusion of the taxpayer in a list of taxpayers to be audited. Similar study was done for Minnesota as reported in [4].

Additional relevant literature related to the effect of Sds application, other tax enforcement models and the law and norms applied in Italy is reported from [5] to [17]. The important business sectors study revision made by the Rey commission is reported in [18].

The added value of this study respects to the state of the art consists in introducing and proposing a parallel way for extracting knowledge from the RA database with the intent of a better representation of dynamics and behaviours of economic units. Main benefit is to enable better governance towards the Italian SME landscape.

III. UNIVERSAL MODEL ARCHITECTURE

The presumptive model used in Italy for fighting the Tax Evasion is built up through the analysis of data collected by deploying a questionnaire to all the Tax Payers. Based on that, the main features for EU (economical unit) clustering are defined together with the variables and coefficient of the linear regression model for computing the potential annual turnover. This study would propose a parallel approach to the current mechanism. This is based on a SME modelling based on Structural Equation Model and it could exploit the same database already in place in IRA.
The ambitious objective is to have a universal model architecture that is able to represent all the EUs and a working flow that determines the specific model for each business sector cluster. The Universal model architecture is represented in figure 1 by using the LISREL PATH DIAGRAM notation, while the flow is as follows:

1) to convert the identified variables of the multivariate regression function in observed variables (exogenous).
2) to convert the identified main cluster characteristics in observed variables (endogenous).
3) to re-use the same Structural model and Y-Model in each business model
4) to identify the relationship between the observed variables and the Ksi variables
5) to generate all the model coefficients based on the already collected data in IRA

6) to verify the goodness of fit and eventually to iterate from point 4.

The Y-model doesn't depend on the specific business cluster, that one is universal, while the X-model is business sector specific. The benefit is to identify the main structural factors that contribute to generate either a positive or negative turnover, the internal and external relationship that influences the economic unit results.

Having understood it, the governance could

(i) correct the sds in a more precise and appropriate way in case of either economical crisis or contingency situations,

(ii) update the sds in a more consistent way

(iii) address point of weaknesses of specific business sectors by dedicated funding campaigns or other means,

(iv) Introduce new economical indicators besides congruity, coherence and normality.

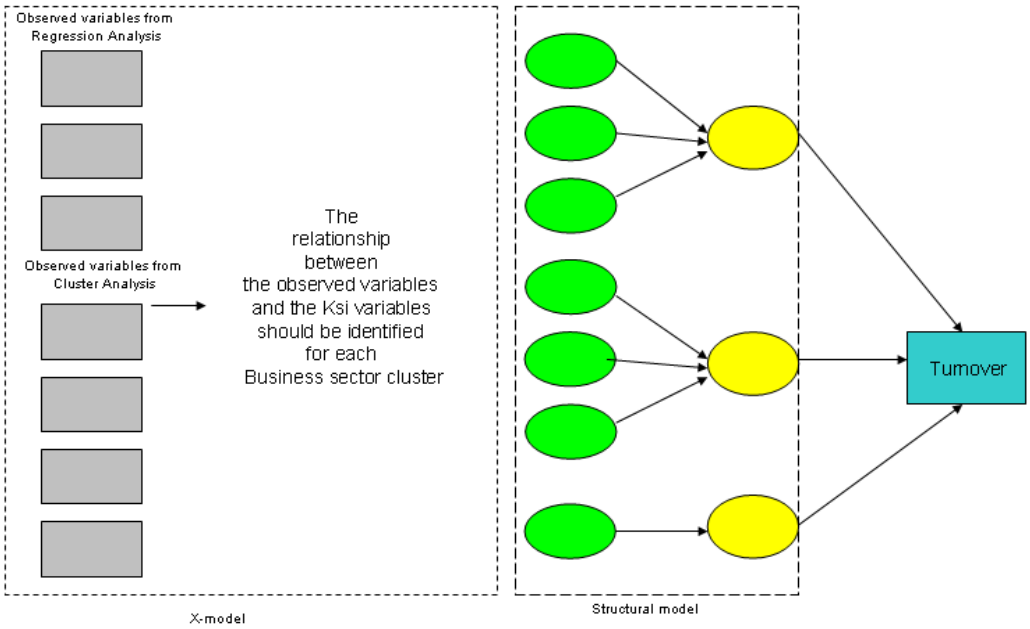

Figure 1: Universal Model Architecture

The applicability of the outcomes of this study seems easy because of this is considered as an extension of the current tool submitted to the Tax Payers and an extension of the questionnaires submitted to the Tax Payers as well. The discriminant analysis run by Gerico for identifying the cluster or clusters of belonging is not touched from this method. The second step is the turnover computation based on the regression model. The modification of this function is not our subject as well. The proposal is to run in parallel this mechanism.

Only in a second and next phase could be necessary to add some additional forms for taking from Tax Payers some additional parameters in order allowing to build the model with a better goodness of fit.

III. STRUCTURAL AND Y-MODELS

The crucial part of this study is represented by the Y-MODEL because of the aim to generate a good fit for all the business sectors by changing just the associations between the observed and latent variables.
The selection of the particular latent factors included in the conceptual framework is based on the review of international literature and earlier research findings. The following aspects and objectives are taken into consideration when choosing the particular influencing factors to be added into the conceptual framework and into the investigation of this thesis:

• testing the most important potential internal latent factors of SME performance;
• testing the internal latent factors of SME performance with contradictory results being reported by previous research;

The Structural Model relationships hypotheses are as follows:

1. The Marketing ability, the Network and the landscape of Competitors should influence the EU capability of relation with the external world (sales, B2B relations,). This capability is called Ext Ability.
2. The Management decision, the ability of expenses control and the competencies should influence the EU capability for product/service delivery on time and on budget. This capability is called Int. Ability.
3. The EU size, the experience, the time dedicated to the job should influence the overall effort. The name in the model is simply Effort.

The Structural model is represented in figure 2.

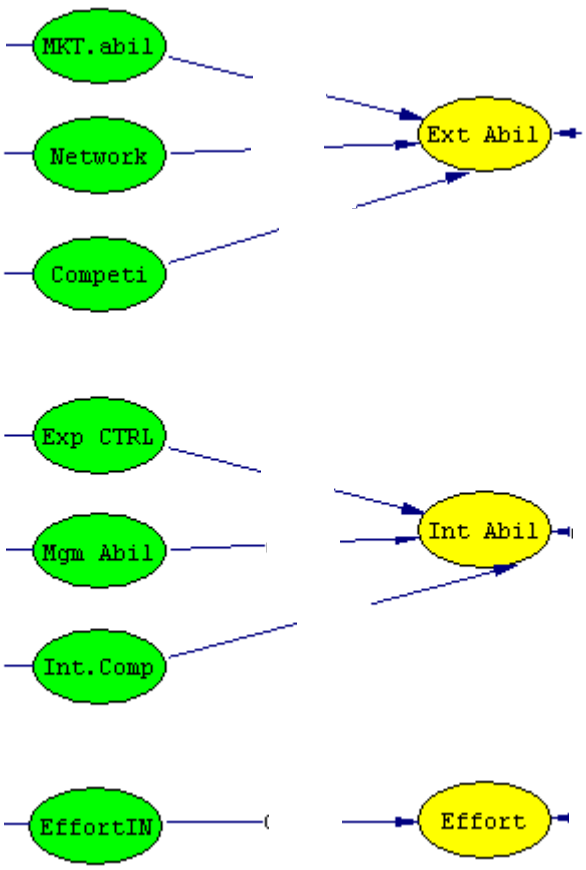

Figure 2. Structural model

The Y-Model relationship is as follows:

- The External Ability, the Internal Ability and the overall Effort determine the Annual Turnover Value.

The algebraic form of the SEM is as reported in table 1.

Ext Abil = $\gamma 11$ MKT abil + $\gamma 21$ Network + $\gamma 31$ Compet + $\xi 1$
Int Abil = $\gamma 42$ Exp CTRL + $\gamma 52$ Management Ability + $\gamma 62$ Int. Comp + $\xi 2$
Effort = $\gamma 73$ Int. Comp + $\xi 3$

Table 1. Algebraic form of the Structural Equation model

The Y- model is represented in figure 3.

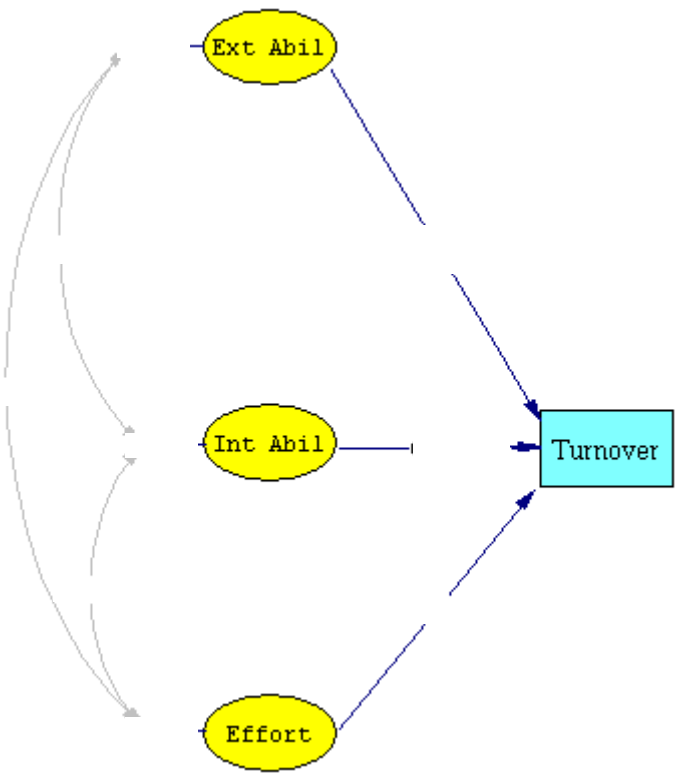

Figure 3. Y model

The Y- model is represented in figure 3.

The algebraic form of the SEM is as reported in table 2.

Turnover = λ11 Ext. Abil + γ21 Int. Abil + γ31 Effort + ε1

Table 2. Algebraic form of the Structural Equation model

The X-Model relationships are not universal, thus as not reported in this section.

IV. A PRACTICAL STUDY CASE

A practical case is reported in this section. As said, the proposed working flow for generating a model from the universal framework should be applied to all clusters belonging to each business sector and for all business sectors.

We selected TK27U – Information Technology Consultant (code TK27u, updated to UK27u in 2011, [14]) as study case. This is because it represents a complex (many clusters) business sector even useful for understanding in deep the methodological approach of RA and Ge.ri.co.

TK27u is an evolution of SK27u. The questionnaire was submitted by IRA to 14855 economics units. 386 items have been excluded for bad and inconsistent form filling. The Total number of considered items for building the model was 14469. Based on that the coefficients for cluster analysis and linear regression function were identified and reported in the Methodological note. The Structural variables identified by applying the PCA are reports in annex X of [5].

As said, these variables are used by Ge.Ri.Co for determining the cluster closer to the unit features. The identified clusters for TK27u are listed hereafter:

CLUSTER 1 – Consultant for SW companies
CLUSTER 2 – Expert in IT security
CLUSTER 3 – Consultant/programmers for the industrial sector
CLUSTER 4 – Consultant for services
CLUSTER 5 – Consultant for public administration
CLUSTER 6 – Developers for SW companies
CLUSTER 7 – Expert in Robotics
CLUSTER 8 – Website developer
CLUSTER 9 – Data analysis
CLUSTER 10 – Trainers/developers for private individuals
CLUSTER 11 – Trainers/developers for companies

In function of the assigned cluster, the related regression coefficients are applied by Ge.Ri.Co to the following variables:

Labor cost (employees and temporary contracts)
Consumes
Other costs
Time dedicated to the activity in function of unit aging

The regression coefficients are reported in the below table 3 [6].

Variables	Cluster1	Cluster2	Cluster3	Cluster4	Cluster5	Cluster6
Expenses for employees + + Expenses for long and continuous collaborations + Remunerations to companies for services related to the professional activity	**1.2646**	**1.7004**	**1.9068**	**1.3556**	**1.4853**	**1.6901**
Consumes	**3.4535**	**4.1436**	**1.9333**	**2.8764**	**3.1744**	**2.4058**
Other expenses	**1.692**	**1.9022**	**1.2061**	**1.1967**	**1.826**	**1.2712**
Hours dedicated to the job	**27.3535**	**21.41**	**28.8448**	**24.8987**	**23.6549**	**24.5184**
Hours dedicated to the job – Analyst	**6.3513**		**6.4485**	**9.3717**		**5.8189**
Hours dedicated to the job – Hardware installer	**-10.31**		**-8.3672**	**-8.8416**		**-6.8603**
Hours dedicated to the job: age till 1 years	**-6.3937**	**-6.0824**	**-5.6804**	**-4.8979**	**-7.7195**	**-5.7027**
Hours dedicated to the job: age till 3 years						
Hours dedicated to the job: age from 2 to 3 years	**-3.6928**		**-1.8929**	**-1.0659**	**-2.483**	**-2.7082**
Hours dedicated to the job: age from 2 to 5 years						
Hours dedicated to the job: age from 4 to 5 years	**-3.0836**					**-1.7728**

Variables	Cluster7	Cluster8	Cluster9	Cluster10	Cluster11	Cluster12	Cluster13
Expenses for employees + + Expenses for long and continuous collaborations + Remunerations to companies for services related to the professional activity	**1.3782**	**1.7461**	**1.33**	**1.3718**	**1.6232**	**1.0608**	**1.3887**
Consumes	**1.3782**	**2.68**	**2.5923**	**3.7116**	**1.647**	**1.4747**	**2.4702**
Other expenses	**1.3782**	**1.1751**	**1.1251**	**1.4681**	**1.647**	**1.1184**	**1.4064**
Hours dedicated to the job	**26.0264**	**21.6017**	**17.087**	**21.0074**	**21.5324**	**20.4286**	**24.1933**
Hours dedicated to the job – Analyst							**7.5644**
Hours dedicated to the job – Hardware installer							**-8.6259**
Hours dedicated to the job: age till 1 years			**-5.4214**	**-3.7132**		**-6.6469**	**-5.787**
Hours dedicated to the job: age till 3 years		**-7.4664**					
Hours dedicated to the job: age from 2 to 3 years						**-5.0456**	**-2.7301**
Hours dedicated to the job: age from 2 to 5 years				**-2.4119**			
Hours dedicated to the job: age from 4 to 5 years		**-4.4745**					**-1.3815**

Table 3. Regression coefficients for TK27U

Source: Methodology note for TK27U

Each cluster is well characterised. Relevant factors like the type of products and service, the type of customers, the type of market, the owner expertise and other factors are collected but finalised just for the cluster identification purpose.

We obtained the X-Model reported in figure 4 by applying the workflow points hereafter listed from 1 to 4:

1) to convert the identified variables of the multivariate regression function in observed variables (exogenous) – see the following table 4a.

2) to convert the identified main cluster characteristics in observed variables (endogenous). - see the following table 4b.

3) to re-use the same Structural model and Y-Model in each business model

4) to identify the relationship between the observed variables and the Ksi variables

LISREL notation	*Observed variables from regression analysis Description*
A01	**Number of days paid to employees at full-time contract**
A02	**Number of days paid to employees at part-time contract**
WWY	**Working weeks a year**
WHW	**Working hours a week**
NMTP	**Number of months to be considered for Tax payment**
FYW	**First year of work**
G01	**Declared turnover**
G05	**Working expenses for employees**
G06	**Working expenses for employees at part-time contract**
G07	**Working expenses for third-party services**
G08	**Expenses for materials**
G09	**Other expenses**

(a) ***Observed variables from regression analysis***

LISREL notation	*Observed variables from cluster analysis Description*
CL1	**Demand of IT manager**
CL2	**IT system design**
CL3	**Support of projects**
CL4	**Feasibility study support**

(b) ***Observed variables from cluster 1 analysis***

Table 4. Observed variables

The integrated model by combining the X-Model, Structural Model and the Y-Model is reported in figure 5. This latter is used for finalising the steps of model generation from the universal framework:

1) to generate all the model coefficients based on the already collected data in IRA
2) to verify the goodness of fit and eventually to iterate from point 4.

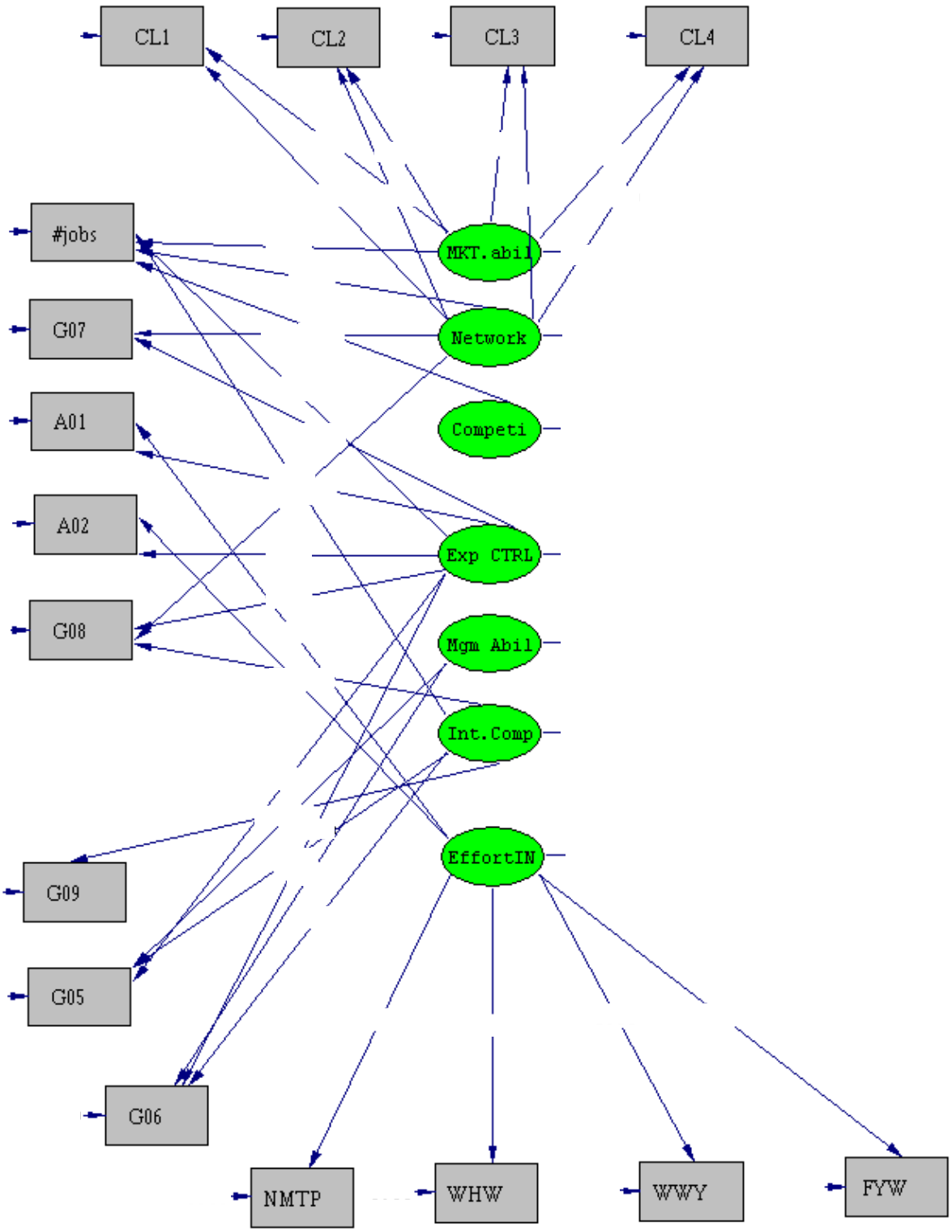

Figure 4. X-Model for TK27U – Cluster 1

The SEM for X model is as reported in table 5.

#jobs = λ11 MKT abil + λ12 Network + λ13 Compet. + λ14 Exp CTRL + λ16 Int. Comp. + δ1

G07 = λ22 Network + λ24 Exp CTRL + δ2

A01 = λ34 Exp CTRL + λ37 Effort In + δ3

A02 = λ44 Exp CTRL + λ47 Effort In + δ4

G08 = λ52 Network + λ54 Exp CTRL + λ56 Int. Comp + δ5

G09 = λ66 Int. Comp + δ6

G05 = λ74 exp CTRL + λ75 Mgm Abil + λ76 Int. Comp + δ7

G06 = λ84 exp CTRL + λ85 Mgm Abil + λ86 Int. Comp + δ8

NMTP = λ97 EffortIn + δ9

WHW = λ10_7 EffortIn + δ10

WWY = λ11_7 EffortIn + δ11

FYW = λ12_7 EffortIn + δ12

CL1 = λ13_1 MKT abil + λ13_2 Network + δ13

CL2 = λ14_1 MKT abil + λ14_2 Network + δ14

CL3 = λ15_1 MKT abil + λ15_2 Network + δ15

CL2 = λ16_1 MKT abil + λ16_2 Network + δ16

Table 5. X model in algebraic form.

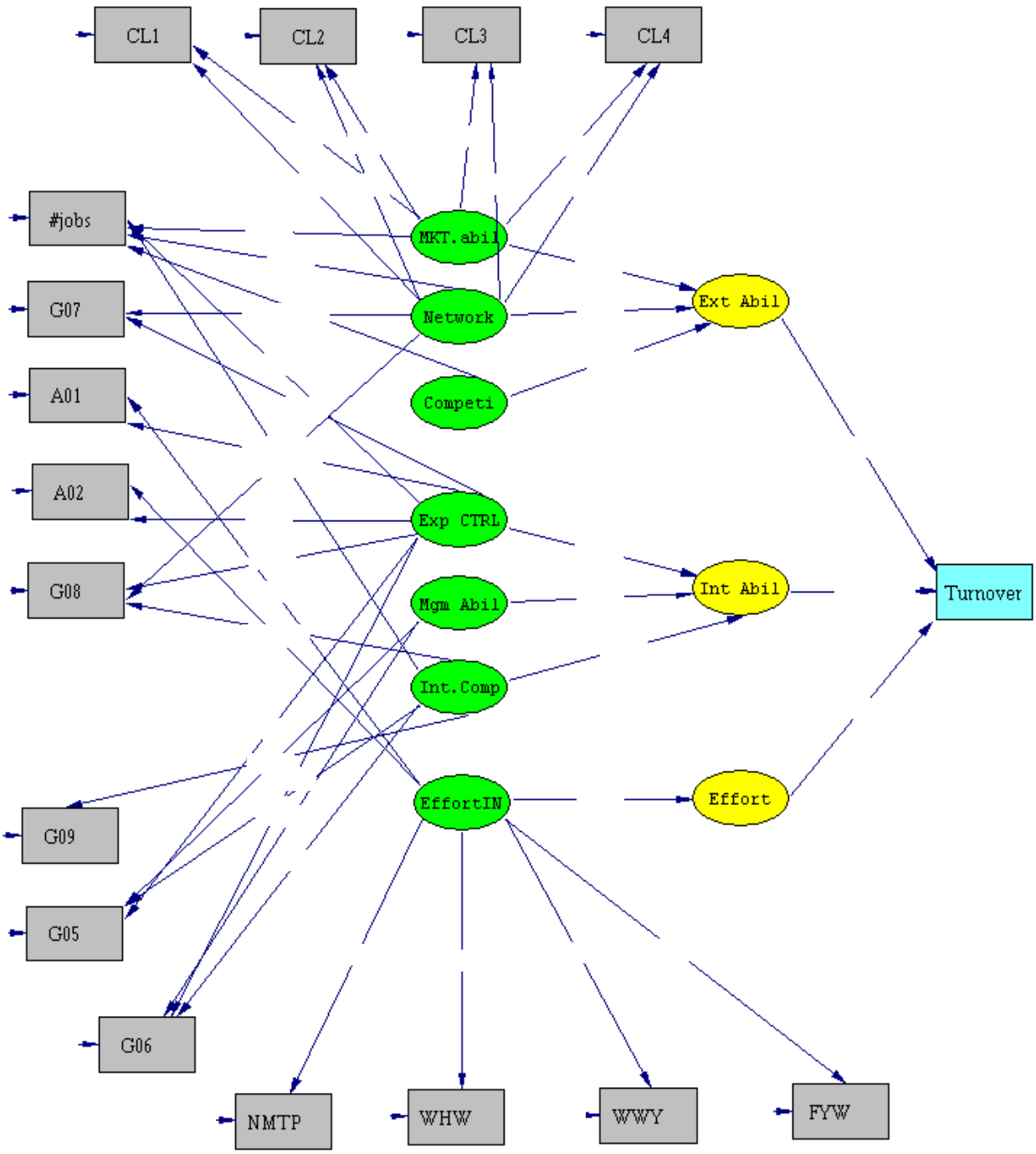

Figure 5. Integrated model for TK27U – Cluster 1

The model was implemented in LISREL software tool v 8.8 by SSI for identifying its parameters. The Degrees of Freedom is an important model feature since it must be positive for solving the equations. It is computed as the difference between the number of equations and number of incognitos (parameters to be estimated). As said, this degree of freedom needs to be positive. In case of negative value the model needs to be reduced, in other words the number of incognitos needs to be reduced. The strategy could be to put some constant value, to introduce some constraints, for example two incognitos must have the same value, or putting at zero some incognitos as well.

The implemented code in SIMPLIS SINTAX is reported in next table 6:

```
SIMPLIS SINTAX
-----------------------------------------------------------------------
SYSTEM FILE from file 'C:\Program Files\LISREL88S\TUTORIAL\tk27uc.DSF'
Latent Variables  'Ext Abil' 'Int Abil' Effort MKT.abil Competi Network
Mgm
Abil' 'Exp CTRL' Int.Comp
EffortIN
Relationships
Turnover = 'Ext Abil' 'Int Abil' Effort
A01 = 'Exp CTRL' EffortIN
A02 = 'Exp CTRL' EffortIN
WWY = EffortIN
WHW = EffortIN
NMTP = EffortIN
FYW = EffortIN
G06 = 'Mgm Abil' 'Exp CTRL' Int.Comp
G07 = Network 'Mgm Abil' 'Exp CTRL' Int.Comp
G08 = Competi Network 'Exp CTRL' Int.Comp
G09 = Int.Comp
#jobs = MKT.abil Network 'Exp CTRL' Int.Comp
CL2 = MKT.abil Network
CL1 = MKT.abil Network
CL3 = MKT.abil Network
CL4 = MKT.abil Network
'Ext Abil' = MKT.abil Competi Network
'Int Abil' = 'Mgm Abil' 'Exp CTRL' Int.Comp
Effort = EffortIN
Path Diagram
End of Problem
```

Table 6. SIMPLIS Sintax

The integrated model in algebraic form is reported in table 7.

#jobs = λ11 MKT abil + λ12 Network + λ13 Compet. + λ14 Exp CTRL + λ16 Int. Comp. + δ1

G07 = λ22 Network + λ24 Exp CTRL + δ2

A01 = λ34 Exp CTRL + λ37 Effort In + δ3

A02 = λ44 Exp CTRL + λ47 Effort In + δ4

G08 = λ52 Network + λ54 Exp CTRL + λ56 Int. Comp + δ5

G09 = λ66 Int. Comp + δ6

G05 = λ74 exp CTRL + λ75 Mgm Abil + λ76 Int. Comp + δ7

G06 = λ84 exp CTRL + λ85 Mgm Abil + λ86 Int. Comp + δ8

NMTP = λ97 EffortIn + δ9

WHW = λ10_7 EffortIn + δ10
WWY = λ11_7 EffortIn + δ11
FYW = λ12_7 EffortIn + δ12
CL1 = λ13_1 MKT abil + λ13_2 Network + δ13
CL2 = λ14_1 MKT abil + λ14_2 Network + δ14
CL3 = λ15_1 MKT abil + λ15_2 Network + δ15
CL2 = λ16_1 MKT abil + λ16_2 Network + δ16
Ext Abil = γ11 MKT abil + γ21 Network + γ31 Compet + ξ1
Int Abil = γ42 Exp CTRL + γ52 Management Ability + γ62 Int. Comp + ξ2
Effort = γ73 Int. Comp + ξ3
Turnover = λ11 Ext. Abil + γ21 Int. Abil + γ31 Effort + ε1

Table 7. The integarted model in algebraic form.

After some loops of complexity reductions and optimization of Good to Fit value in order to have a quite representative model (Chi-Square test) the modeling work is completed. The model can be used as Gerico for estimating the turnover value but with a better understanding of dynamics and behaviors between the key parameters and the turnover itself.

V. Conclusions

This study proposes a parallel way for analysing economic units data obtained by Gerico from Tax Payers.

The outcome of this analysis is a systematic approach and method for obtaining a model for each cluster that can better represents the economic unit itself.

As said, It could bring a lot of benefits in many directions: policy of investments, a more refined approach for selecting companies to be audited, to identify new indicators besides the congruency, consistency and normality based on the identified internal and external relationships.

The ambitious feature is to have a universal reference model and to generate in a deterministic way a single business sector/cluster model able to represent the dynamic and behavior of each economic unit.

The additional advantage is that the mechanism can be applied without doing any relevant changes to the current RA infrastructure.

References

[1] Arachi, G, Santoro, A. Tax Enforcement for SMEs: Lessons from the Italian Experience? , eJournal of Tax Research, Vol. 5, No. 2, pp. 225-243, 2007

[2] Santoro, A., Fiorio C.V. Taxpayer Behavior When Audit Rules Are Known: Evidence from Italy. Public finance review, 39(1), 103-123, 2011

[3] Fiorio, C, Santoro, A., Taxpayer response to an increased probability of audit: some preliminary evidence from Italy, XXIII Conference, Societa' Italiana di Economica Pubblica, Dipartimento di economia, statistica e diritto dell'universita' di Pavia

[4] Slemrod, J, Charles, C and Blumenthal, M. Taxpayer response to an increased probability of audit: evidence from a controlled experiment in Minnesota, Journal of Public Economics 79 (2001) 455-483

[5] Gupta, M., Nagadevara, V., Audit Selection Strategy for Improving Tax Compliance – Application of Data Mining Techniques, Foundation of E-Government, 2007

[6] Franzoni, LA, Discretion in tax enforcement, XIII Conference, Societa' Italiana di Economica Pubblica, Dipartimento di economia, statistica e diritto dell'universita' di Pavia, 2001

[7] Evasione fiscale e nuove tipologie di accertamento: una introduzione all'analisi economica

[8] Agenzia delle Entrate (2006), "Analisi dell'evasione fondata sui dati IRAP. Anni1998-2002", available at http://www1.agenziaentrate.it/ufficiostudi/pdf/2006/Sintesievasione-Irap-06.pdf.

[9] Agenzia delle Entrate (2007), "Gli effetti dell'applicazione degli studi di settore in termini di ampliamento delle basi imponibili", available at http://www1.agenziaentrate.it/ufficiostudi/pdf/2007/applicazione_studidisettore.pdf.

[10] Bird, Richard M. and Sally Wallace (2004), "Is it Really so Hard to Tax the Hard-to- Tax? The Context and Role of Presumptive Taxes" in Alm, J., J. Martinez-Vazquez and S. Wallace, (eds.)

[11] Bordignon, Massimo and Alberto Zanardi (1997), "Tax Evasion in Italy", Giornale degli Economisti e Annali di Economia, 56(3-4): 169-210.

[12] Sogei (1999) Confronto tra dati fiscali e dati di contabilità nazionale, volume 1, Roma. Tedds, Lindsay M. (2005), "Keeping it off the books: an empirical investigation intothe characteristics of firms that engage in tax non-compliance", Working Paper Series of the Department of Economics, Working Paper N.1, Mc Master University, Ontario, Canada.

[14] Nota tecnica e metodologia, TK27u, http://www.agenziaentrate.gov.it

[13] Revisione congiunturale speciale degli studi di settore per il periodo di imposta 2009

[14] CIRCOLARE N. 29 /E, Roma, 18 giugno 2009, OGGETTO: Studi di settore. Periodo d'imposta 2008.

[15] CIRCOLARE N. 34/E, Roma, 18 giugno 2010, Studi di settore. Periodo d'imposta 2009

[16] CIRCOLARE N. 30, 28 Giugno 2011 - Agenzia delle Entrate - Direzione Centrale

[17] Gli aspetti statistici negli studi di settore, Donato Lucev, Istituto di statistica e matematica, Universita' degli Studi di Napoli

[18] Commissione tecnica per lo studio e l'approfondimento delle problematiche di tipo giuridico ed economico inerenti alla materia degli Studi di Settore, Guido Rey, Roma, Gennaio 2008

[19] Wright, Sewall S. (1921). "Correlation and causation". Journal of Agricultural Research 20: 557–85.

[20] Simon, Herbert (1953). "Causal ordering and identifiability". In Hood, W.C.; Koopmans, T.C.. Studies in Econometric Method. New York: Wiley. pp. 49–74

[21] Bollen, K A, and Long, S J (1993) Testing Structural Equation Models. SAGE Focus Edition, vol. 154, ISBN 0-8039-4507-8