

2017 (5)

CONFERENCE PROCEEDINGS

G200 Youth Forum 2017 Conference
December 6-10, Dubai, UAE

INTRODUCTION

The G200 Youth Forum (Dubai, UAE, 6-10 December 2017) was an annual international event organized for young leaders from around 200 countries; and over 100 young leaders, students and academics, representatives of the business world and governments participated in it.

It was the 12th year of the Forum. Previous events were held in:

- 2006 – G8 Youth Summit – Russia (Saint-Petersburg);
- 2007 – G8 Youth Summit – Germany (Berlin);
- 2008 – G8 Youth Summit – Japan (Tokyo);
- 2009 – G8 Youth Summit – Italy (Milano);
- 2010 – G20 Youth Summit – Canada (Vancouver);
- 2011 – G20 Youth Summit – France (Paris);
- 2012 – G20 Youth Summit – USA (Washington D.C.);
- 2013 – G20 Youth Forum – Russia (Saint-Petersburg);
- 2014 – G20 Youth Forum – Germany (Garmisch-Partenkirchen, Bavaria);
- 2015 – G200 Youth Forum – Germany (Garmisch-Partenkirchen, Bavaria); and
- 2016 - G200 Youth Forum – Germany (Garmisch-Partenkirchen, Bavaria);
- 2017 – G200 Youth Forum – UAE (Dubai).

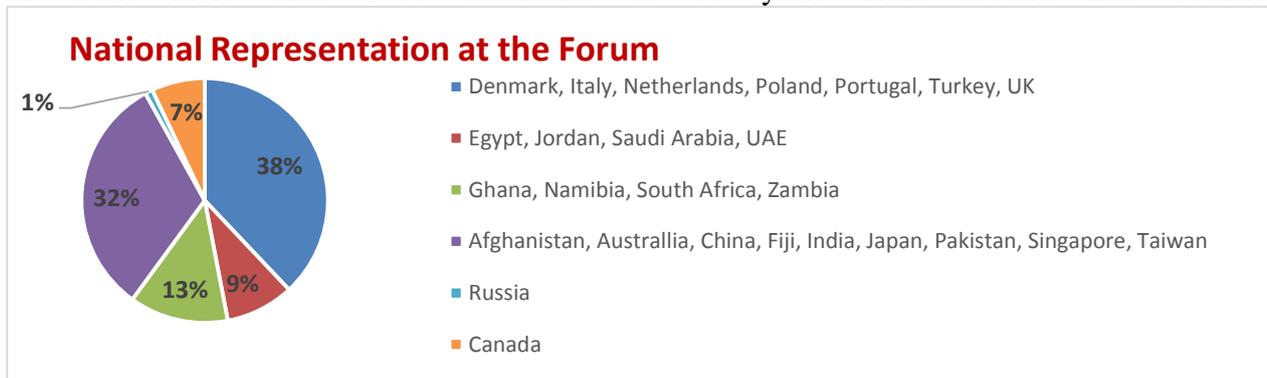
The G200 Youth Forum 2017 had 5 main events which run in tandem with each other:

- G200 Youth Summit – Final Perspectives;
- Conference – Publication of academic articles in the Conference Proceedings;
- International Young Parliamentarians’ Debate– with Joint Statement;
- The new established G200 Young Professionals Platform and The G200 Entrepreneurs Platform 2017;
- Joint Sessions - with Joint Sessions reports.

Conference 2017 is an international Conference for representatives from the best Universities in the world who are experts in international relations, law, economics, finance, technology, medicine, education and humanities. During the Conference participants discuss global problems which are on the agenda of the academic communities of different countries in the format of 8 round tables working in parallel.

- | | |
|---|--|
| 1. Economics and Finance | 5. Ecology, Environment, and Energy |
| 2. Law and Human Rights | 6. Design, Technology, and Innovations |
| 3. World Politics and International Relations | 7. Education and Youth |
| 4. Social Affairs and Medicine | 8. Humanities: History, Philosophy, Linguistics, Arts, and Journalis |

In total: more than 4700 attendants in 11 years from around 200 countries.



The participants of the Conference were representing the best Universities of their countries:

- Administration of Saint-Petersburg
- Bentley Adolescent Unit: Mental Health Nurse
- Centennial College
- ISCTE - Instituto Universitário de Lisboa
- Leiden University
- Polish Young Academy, Polish Academy of Sciences
- Tianjin University of Finance and Economics
- University of Canberra

Reviewer Acknowledgement for the Conference Proceedings 2017

G200 Association would like to thank all our reviewers who have contributed to the Conference Proceedings 2017

Dr. Zhang Yanling, Professor, Deputy Director of Tourism Department, Business School, Tianjin University of Finance and Economics, Tianjin, China.

Dr. Jagmeet Singh, Assistant Professor, Department of Human Values & Professional Ethics, Punjab Technical University, Punjab, India

In the Conference Proceedings 2017 the spelling and punctuation of the authors are kept. The opinions expressed in the articles are those of the authors and do not necessarily reflect the position of the G200 Association.

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*Economics
and Finance*

Better schools, same resources: An international comparison of school efficiency

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1. INTRODUCTION

School education is a fundamental channel for enhancing individual and social well-being. The adequate development of cognitive and socio-emotional capabilities through quality education leads to not only higher private financial returns in the future, but also economic growth, better health, improved nutrition and higher civic participation (OECD 2012).

Governments across the world have been recognizing the importance of education. Reflecting such concern, long-term primary and secondary education expenditure as a share of GDP per capita has been increasing among developed countries (Wolff 2015). However, the benefits from this increasing investment are not clear. In fact, international evidence has shown that higher expenditure in school education in developed countries has no significant impacts on student performance. The main determinants of children's success at school are rather the context and the institutional design of each education system (Wößmann 2016).

Despite the continuous increase in long-term expenditures, several countries have been recently faced with tighter public budget constraints. Demographic developments have also been leading to a re-evaluation of human resource intensiveness in schools. Since most school resources in developed countries are guaranteed by public funds, efficiency-driven reforms have become increasingly relevant in education policy. However, uncertainty about the educational process due to the intangibility of the resources and outcomes involved hampers the ability of educators to take efficiency-driven decisions. Despite the increasing availability of international datasets in the area of school education, few studies have been providing international comparisons of school education efficiency (Witte & López-Torres 2017). Studies within the field have been pointing for considerable potential gains in efficiency.

In this paper, I attempt to contribute to the debate on school efficiency by deriving quantitative scores for 7 318 schools from 34 different OECD countries, using data from the latest PISA 2015 cycle¹. The article provides a description of the distribution of schools within and across countries, regarding their ability to provide quality education with limited resources. Furthermore, this paper attempts to identify the features of schools correlated with efficient allocations of resources. In order to do this, the article employs a two-stage procedure. A free disposal hull (FDH) analysis – a non-parametric technique for assessing the extent of inefficiencies within and across countries – is used in the first-stage. In a second-stage, the derived efficiency scores are used as the dependent variable of a parametric regression model.

2. INTERNATIONAL COMPARISONS OF SCHOOL EFFICIENCY

2.1. The concept of school efficiency

The efficiency concept used in this paper derives from the early literature in efficiency measurement (Koopmans 1951; Debreu 1951; Shephard 1953; Farrell 1957). In any production process, inputs are transformed into outputs according to a given technology. Considering education

¹ The Programme for International Student Assessment (PISA) from the OECD is a large-scale standardized achievement test and survey producing comparable student scores and background information for 15 year-old students across the world.

as a production process, relating given school resources (inputs) with a set of educational outcomes (outputs). School efficiency is here defined as the ability of schools to provide the maximal possible output from the set of its available school resources (an output-oriented perspective).

Crucially, the difference between efficiency and productivity lays in its normative nature (Ray 2004). Productivity can be broadly defined as the ratio between the sets of outputs and inputs used in the production process. Inefficiencies, on the other hand, are measured as the difference between the output-input ratio *that can be maximally attained*, given the production technology, and the observed output-input ratio.

School efficiency is also here measured as technical, rather than allocative efficiency. In this sense, we restrict our attention to the resources (e.g., human, physical) that are incorporated in the education process, but not considering its cost. This allows us to focus on the intensiveness in the use of this resources uncontaminated by differences in the prices of those resources.

2.2. Main methods

Efficiency in school education, in this article, is benchmarked against best practice. Similar to the literature, efficiency is measured in relation to a production possibilities frontier (PPF). Different methods (including parametric and non-parametric methods) have been developed to measure these distances.

Parametric methods assume that the education production process is a known process. This is usually formalized as a Cobb-Douglas function or other functions possible to. Parametric methods mainly include standard, modified or corrected ordinary least squares (OLS, MOLS or COLS) (Richmond 1974; Greene 1980b), or maximum likelihood estimation methods (MLE) (Greene 1980a). However, these techniques are usually inadequate for efficiency assessment in the context of multiple outputs (Johnes 2004). Analyses of efficiency in education focusing on just one output might be argued to be less insightful, as schools pursue various goals through their activity, such as the development of the students' multiple cognitive skills, besides their socio-emotional capabilities.

Non-parametric methods, on the other hand, do not assume a specific functional form for the education process. In this case, the importance of each factor in the production process is fully inferred from the data through mathematical programming techniques. Data envelopment analysis (DEA), introduced by Charnes et al. (1978), has been the most widely applied of these techniques in the empirical measurement of efficiency in education (Witte & López-Torres 2017).

Alternatively, Deprins et al. (1984) introduced the free disposal hull (FDH) method, providing an even more flexible understanding of the production frontier. Contrary to DEA, FDH does not assume convexity in production. Convexity implies that if two production plans are feasible, than their linear combination is also feasible. However, some authors have long been arguing that the convexity axiom might be violated in the presence of economies of scale or specialization and where there is indivisibility of inputs and outputs (Farrell 1959). Others have recently extended the critique to the case of educational production functions (Mayston 2016). Furthermore, if the true educational production function is not convex DEA is an inconsistent estimator of the frontier, while the FDH estimator remains consistent. On the other hand, if the production set is convex, the FDH estimator is still consistent, despite being biased (Daraio & Simar 2007). Therefore, if no good reasons are presented for the production set to be convex, then FDH yields greater empirical validity.

2.2. Other studies

Comparisons of educational efficiency at an international level have been notoriously scarce, given the large field of efficiency measurement studies in education (Witte & López-Torres 2017). Most of these employ DEA for the calculation of efficiency scores (Agasisti & Zoido 2015; Giménez et al. 2007; Afonso & St. Aubyn 2006; Agasisti 2014), while others use versions of an FDH estimator (Cordero et al. 2017).

Afonso & St. Aubyn (2006) find that OECD countries could have, on average, increased 15 year-old students' achievement in PISA 2003 by 11.6 percent, for the same level of resources. According to the study, Finland, Korea and Sweden were the most efficient education systems in the sample. Agasisti (2014) supports these results as it finds that Finland was the most efficient country for an assessment of school efficiency in European countries, using PISA 2006 and 2009 data. The study concluded that countries could have still reached the same quality in education with an average 10 percent saving of school resources. For a broader set of countries, Agasisti & Zoido (2015) find that schools across OECD economies could have increased student outcomes in PISA 2012 by about 27 percent, for the same resource intensiveness.

Other studies focus on student achievement of younger students. They apply data from the International Education Agency (IEA) standardized achievement tests in mathematics and science (TIMSS), as well as reading (PIRLS) for 4th and 8th grade students across the world. Giménez et al. (2007), using TIMSS 1999 data, stressed the importance of factors exogenous to the education system for explaining differences in efficiency across schools. For the same intensiveness of resources an increase of 10 percent in student outcomes could be achieved, with 6 percent being attributable to exogenous factors (e.g., availability of resources at home or GNP per capita) and 4 percent attributed to the inefficiency of schools. In turn, Cordero et al. (2017), using PIRLS 2011 data for a set of 16 European countries, find that academic outcomes could have increased by 7 percent if inefficient schools were operating at the production possibilities frontier. The authors also found that the differences are mostly driven by country-related factors (60 percent), such as GDP per capita. Additionally, proxy variables for hard work, responsibility and perseverance were found to be a favorable influence to school efficiency, stressing the importance of investing in the non-cognitive skills of students (Cordero et al. 2017).

3. DATA AND METHODOLOGY

3.1. Data

This study uses data of the 2015 Programme for International Student Assessment (PISA 2015), conducted by the OECD². Student performance in each subject is measured through a psychometric scale with mean of 500 test-score points and standard deviation of 100 across countries belonging to the OECD group. Each student is tested for a broad array of topics in the concerned subject with differing levels of difficulty. As the participants only answer to a representative portion of the complete test, a set of ten plausible values for the complete test score is drawn for each student based on a given distribution of performance³.

Besides the data on achievement a large set of characterizing variables is collected. Students and their families are asked to provide a series of information on individual characteristics and social

² PISA studies, conducted every three years since 2000, are conceived to obtain internationally comparable data on student achievement in three broad topics: Maths, Science and Reading. The assessment is made through a standardized achievement test targeted to 15 year-old students (enrolled above the 7th grade) irrespective of the type of school attended. The test aims to evaluate different cognitive dimensions -- e.g., in the case of science, content, procedural and epistemic knowledge are considered. For a complete description of the results across participating countries and economies please refer to (OECD 2016).

³ The plausible values can be interpreted as the ability range for each student, being randomly obtained from the distribution function of the test results.

and economic background. The dataset is enriched by information from a questionnaire filled out by the principal of each school in which the PISA test was taken, including data on the availability of resources, the school's characteristics and its institutional setting.

As the empirical analysis is performed at the school-level, performance and student background variables were aggregated for each school. As the psychometric scale of the PISA test-scores is adjusted to student-level analysis, not school-level, care should be taken in interpreting the results.

After carefully dealing with data cleaning issues, the final dataset includes 7 318 schools from 34 OECD countries⁴.

3.2. Empirical strategy

This paper uses a two-stage procedure. In the first stage it computes school efficiency scores using an FDH method and a meta-frontier approach. In the second stage it use the efficiency scores as the dependent variable of a parametric regression model using appropriate techniques.

The education production function is characterized by a general production technology set (Ψ) relating a set of inputs $x = (x_1, x_2, \dots, x_p) \in R_+^p$ and a set of outputs $y = (y_1, y_2, \dots, y_q) \in R_+^q$ such that:

$$\Psi = \{(x, y) \in R_+^{p+q} \mid x \text{ can produce } y\}$$

In order to measure the distance between each specific school vector of inputs and outputs (x_0, y_0) in the sample and the production possibilities frontier, an output-oriented FDH estimator is used, as in Deprins et al. (1984), and given by:

$$\hat{\lambda}(x_0, y_0) = \max \left\{ \lambda \mid \lambda y_0 \leq \sum_{i=1}^n \gamma_i Y_i; x_0 \geq \sum_{i=1}^n \gamma_i X_i; \sum_{i=1}^n \gamma_i = 1; \gamma_i \in \{0,1\}; i = 1, \dots, n \right\}$$

The efficiency of a given school is thus evaluated by the corresponding estimated score $\hat{\lambda}$, taking into account vectors of inputs and outputs (X_i, Y_i) of each school i . The schools for which $\hat{\lambda} = 1$ will be in the estimated production possibilities frontier (PPF), while for $\hat{\lambda} \geq 1$, schools will not be in the estimated PPF, being inefficient.

For analytical purposes, it is assumed that each school aims to maximize the average academic achievement of its student population. The outputs considered are thus the average school achievement in Mathematics and Science, proxied by the first plausible value of the students in the dataset (*pv1math* and *pv1scie*)⁵. The inputs are the intensiveness of human resources (proxied by the teacher-student ratio, *tsratio*) and the intensiveness of material resources (proxied by the computer-student ratio, *comp*). The socio-economic background of the students enrolled in the school is also taken as an input of the education production function. The home environment in which the child is raised has a significant impact on achievement, shapes motivation and determines school and career expectations. In order to account for this this paper uses the average of the economic, social and cultural status (ESCS) of the students in the school. ESCS is a composite score including the influence of multiple dimensions, namely parental education, parents' professional occupation and household possessions, as a proxy for wealth. The values are computed through principal factor analysis and being re-scaled – in this paper – to only assume positive values and have a standard deviation of 1.

⁴ Luxembourg was not considered in the final sample as the number of schools for the efficiency estimation was too small.

⁵ Due to the use of only one of the plausible values for computing the averages, the results should not be strictly compared to the final PISA results and rankings presented in (OECD 2016).

Variables	Observations.	Mean	Std. Dev.	Min	Max
Outputs					
Math scores (<i>pv1math</i>)	7318	490.86	58.02	229.48	672.67
Science scores (<i>pv1scie</i>)	7318	495.07	60.94	257.03	677.53
Inputs					
Teacher-student ratio (<i>tsratio</i>)	7318	0.09	0.07	0.01	1
Computer-student ratio (<i>comp</i>)	7318	0.90	0.91	0.003	34.70
ESCS (<i>escs</i>)	7318	6.17	1	1	8.60

Table 1. Summary statistics of inputs and outputs

Schools can be benchmarked both against schools operating in the same country as with others operating in different education systems. Therefore a metafrontier approach, in the spirit of O'Donnell et al. (2008), is used to separate these different benchmarks. Two different types of production possibilities frontiers are considered. First, 34 local frontiers are estimated for the sub-samples of n_k schools in each country in the full sample. Second, an international best practice frontier is estimated for the full sample of 7 318 schools. This allows to separate for efficiency due to country effects and due to specific school characteristics. The distance from of a given school to its national frontier can be attributed as school efficiency (ScE) while the distance from the national frontier to the international one can be interpreted as the country effect (CE). The distance from the inefficient school to the enveloping international frontier is the estimated global efficiency score ($\hat{\lambda}^{GE}$).

Finally, the paper investigates potential factors associated with the differences in the computed global efficiency scores. For this second-stage the collected scores are regressed on a set of covariates, such that:

$$\hat{\lambda}_i^{GE} = z_i\beta + \epsilon_i, i = 1, \dots, n$$

Where z_i is a vector of explanatory variables associated with each school i , β a vector of coefficients of the regression and ϵ_i the error terms.

However, the $\hat{\lambda}_i^{GE}$ are serially correlated with the error term in an unknown way and are not independent and identically distributed (i.i.d.)⁶ – a basic condition for the adequate use of an ordinary least squares (OLS) estimator. Furthermore, the dependent variable has a truncated nature, as it has a lower bound at 1. Therefore, the method in Simar & Wilson (2007) is followed. The paper uses a left truncated regression model with bootstrapped standard errors for attaining confidence intervals robust to the methodological limitations mentioned above.

4. EMPIRICAL RESULTS

4.1. Distribution of school efficiency

Figure 1 depicts the main results for each country in the sample. The average global efficiency score of the schools is 1.222 (1.229 only considering inefficient schools). This means that inefficient schools could have, on average, increased student outcomes by 18.6 percent were they operating in the international efficiency frontier. The distribution of efficiency scores suggest that the education systems of Korea, Turkey and Japan are the ones where schools are, on average, most efficient. While Japan and Korea results are driven by the high level of student outcomes in those countries, the ranking of Turkey and Mexico is mostly explained by the relatively harsh contextual

⁶ The global efficiency scores are not i.i.d. by construction. Since these are computed in relation to the observations in the sample, the score of each school will be dependent of the scores of other schools in the sample.

conditions of student background, as measured by average ESCS⁷ in each school. In fact, both these countries present the lowest average ESCS measure across schools.

Restricting our attention to national efficiency frontiers, inefficient schools could have still increased, on average, student outcomes by 9.4 percent for the same intensiveness of resources and student characteristics. However, according to the model, country effects ($\hat{\lambda}_i^{GE}$) – given by the ratio between global and national efficiency scores – is larger than the efficiency scores computed through each national frontier ($\hat{\lambda}_i^{SCE}$). Therefore, the results suggest that differences in school efficiency across countries are mostly driven by specific characteristics of the organization of each education system rather than the specific organization of schools.

The estimated international efficiency frontier is defined by 3.3 percent of schools in the sample, i.e., those to which the other schools are benchmarked. Most of these are located in Mexico and Turkey (25% of their schools are in the efficiency frontier), where the contextual conditions for the operation of schools are harsher. But countries where the socio-economic background of students is relatively more favorable on average also contribute with several schools for the international efficiency frontier. Japan, Korea, Portugal, the Netherlands or Canada all have 10 or more schools in the PPF. In total, 23 different countries have schools with $\hat{\lambda}_i^{GE} = 1$.

The international distribution of efficiency scores is heterogeneous within countries. Figure 2 depicts some of this heterogeneity for a set of selected countries. While in Australia, school efficiency resembles a normal-shaped distribution, in Slovenia it is more uniform. In Finland, schools are more concentrated around the mean, as schools have relatively more similar characteristics. In fact, the Finnish system does not seem to trade-off quality school education for more equitable results across the students. Restricting the attention to the national PPF, 66 schools (43.4 percent of Finnish schools in the sample) are efficient. Although the least efficient school in the Finnish sample could have still increased the student outcomes by 13.7 percent for the same level of resources and student characteristics, the average inefficient school could have increased student outcomes by 4.7 percent if operating at the national PPF. Japan, on the other hand, while having several schools in the international efficiency frontier, has a more scattered distribution of inefficient schools when only considering the school effect ($\hat{\lambda}_i^{SCE}$). In this case, the most inefficient school in Japan could have still increased its student outcomes by 22.6 percent if operating at its national efficiency frontier.

The efficiency scores were robust to changes in the specification of the model. Considering a non-parametric model with scientific and reading literacy (rather than mathematical) as the outputs yields a Pearson correlation coefficient of 0.92 (0.93 if considering average PISA scores at mathematics and reading as the outputs). The results also seem to be relatively robust to changes in the plausible values considered for the outputs (holding Pearson correlation coefficients of 0.94).

4.2. Factors associated with efficiency

4.2.1. Final results

We now turn to find some explanatory factors for the variation in global efficiency scores across schools. The covariates considered for the analysis of the potential factors affecting the distribution of efficient schools include school characteristics and school-level practices. In particular, we will look into the potential effects of student enrolment, school ownership (private or public) or school location (rural or urban). Furthermore, school-level practices are also considered, namely, if the principal controls the allocation of the budget within the school, if information on the achievement

⁷ When efficiency scores are computed without ESCS as an input of the education production function, these countries are in the bottom of the country ranking. Results can be made available under request.

of students is posted publicly in the school, if students are grouped in classes according to ability or if the average class size is 15 student or less.

Table 2 presents the final results. Three different specifications are considered. The model specification in Column (A) just considers explanatory variables associated with school characteristics. The model specification in Column (B) adds to the regression variables on specific school-level practices, while Column (C) includes the marginal impact on efficiency of rural schools with classes that have, on average, 15 or less students. The results are derived from a left truncated regression model with bootstrapped standard errors, with each regression being repeated 2 000 times, according to algorithm #1 in Simar & Wilson (2007)⁸.

Figure 2. Distribution of global efficiency scores within selected countries

Dependent variable: Global efficiency scores ($\hat{\lambda}^{GE}$)			
	(A)	(B)	(C)
School Characteristics			
Total enrolment in school	-7.98e-05*** (4.23e-06)	-7.38e-05*** (4.20e-06)	-7.33e-05*** (4.21e-06)
If the school is privately run	0.0159*** (0.00496)	0.0148*** (0.00490)	0.0146*** (0.00490)
If the school is located in a rural area, village or small town	-0.0155*** (0.00355)	-0.0169*** (0.00361)	-0.0151*** (0.00373)
School-level policies			
Achievement data are posted publicly		-0.0123*** (0.00352)	-0.0123*** (0.00352)
Students are grouped according to ability		0.0117* (0.00680)	0.0119* (0.00679)
Principal decides budget allocations within the school		-0.00888** (0.00431)	-0.00897** (0.00431)
If average class size is 15 students or less		0.0406*** (0.00659)	0.0554*** (0.0106)
If the school is rural and has small classes (≤ 15 students)			-0.0240* (0.0133)
School and student controls	Yes	Yes	Yes
Country dummies	Yes	Yes	Yes
Constant	1.028*** (0.0185)	1.041*** (0.0182)	1.041*** (0.0182)
Sigma	0.111*** (0.00126)	0.110*** (0.00127)	0.110*** (0.00127)
Observations	6,508	6,428	6,428
Maximum Pseudo Log Likelihood	5780	5728	5729
Wald Chi-square	2572	2522	2539
Bootstrap Repetitions	2000	2000	2000
Standard errors in parentheses			
P-values: *** p<0.01, ** p<0.05, * p<0.1			

Table 2. Main results

Notes: Country dummies for Australia, Austria, New Zealand and Sweden are omitted from the regression due to multicollinearity issues. School-level controls include composite indices of school leadership, shortage of educational staff, inequality measures of student results within the school, as well as inequality measures of student household cultural possessions and wealth. The regressions do not include every school in the full sample due to missing values in

⁸ The regressions were run using Stata, version 13.1 and applying the *simarwilson.ado* routine, developed by Harald Tauchmann, of the Friederich-Alexander University, in Germany.

some of the covariates.

Sigma is the equivalent (in a truncated regression) to the root mean squared error in OLS. It is the standard error of the regression.

The results are robust to changes in the model specification. In fact, despite some minor changes in the quantitative impact of each variable, no coefficient changes its qualitative interpretation across the models. Besides the covariates of interest, other controls for student and school characteristics, as well as country dummies, were also included but will not be further interpreted.

The number of students at school has a small, yet significant, effect in explaining the differences in global efficiency scores across schools. According to the specification, larger schools are also more efficient (as the marginal effect is negative and since the lower the dependent, the higher the efficiency). The results support the claim that larger schools are able to garner economies of scale, contributing to a literature where results are mostly mixed (Witte & López-Torres 2017).

The presented specifications also suggest that private schools (15.6 percent of the sample) are less efficient, controlling for all other factors. Although schools that are private have higher average student achievement (about 18 PISA score points in mathematics), they also enroll students from more advantaged socio-economic backgrounds (with a difference of 0.5 in the ESCS index). Given that the concept of school efficiency used accounts for average ESCS as an input with which schools have to operate, the results have the expected sign. These are also in line with the results found in Agasisti (2013), in the context of the Italian education system. However, the effects of private ownership in the literature on school efficiency are generally mixed.

Location is also shown to have a strong and significant impact on the variation of global efficiency scores across schools. While the independent effect of being located in a rural environment or a small town has been extensively studied in the literature, the results generally show greater efficiency in urban schools (Witte & López-Torres 2017). However, according to the method employed in this paper, schools in rural areas, villages or towns with less than 15 000 inhabitants (31.9 percent of the sample) are more efficient in the use of the available human and material resources, and given the characteristics of their student population. An explanation for this may be the fact that schools located in urban areas traditionally deal with more ethnically and socially diverse student populations, showcasing greater diversity of needs than those in rural areas.

Practices at the school level (Columns (B) and (C) of Table 2) are also significant in explaining global efficiency differences across OECD countries. The principal directly deciding about budget allocations within the school is associated with less inefficiency, holding all other factors constant. This is in line with evidence that greater school autonomy in developed countries generally yields positive student outcomes (Hanushek et al. 2013).

Policies regarding transparency of student results also seem to play a role in the efficient provision of quality education. Schools are less inefficient than the reference group when achievement data of students is posted publicly within the school (45.78 percent of the schools). These results, however, stand in contrast with those of Agasisti & Zoido (2015) who use PISA 2012 data, while employing a different method.

Regarding the organization of classes, the results suggest that schools that group students in classes according to ability and have an average class size of 15 students or less are more inefficient than those that do not follow such a practice, controlling for all other variables. This supports the international evidence stating the negligible or insignificant effects of class size reductions on students' academic achievement at school (Wößmann 2016). Interestingly, Column (C) of Table 2 shows that, nevertheless, being a rural school with a small class size is associated with greater efficiency, holding every other factor constant.

4.2.1. Robustness checks

The final results were submitted to extensive robustness checks. Changes in the controls were introduced with no change in the qualitative interpretation of the results, and only minor changes in the quantitative marginal effects. The variables of interest were interacted across themselves and with the controls, showing insignificant impacts. In particular, being a private rural school was not statistically significant in explaining differences in efficiency across schools. Also, no significant effects were found from the interaction between the number of the students enrolled and it being private or located in rural areas. There are also no specific effects associated with principal autonomy in the allocation of the budget in private schools (by comparison to public ones).

Robustness checks were also performed for changes in the dependent variable ($\hat{\lambda}^{GE}$). Alternative models for the computation of the global efficiency scores (for different plausible values of performance and for achievement in different subjects) were also considered. Despite minimal changes in the marginal effects, the qualitative interpretation remains generally stable across the different models. Only when Reading is introduced as the output of the education production function (in exchange of Mathematics or Science) does the type of school ownership (private or public) become insignificant to explain differences in efficiency across schools.

5. CONCLUSION

Not every school is efficient in providing education to children. As most schools are public, not-for-profit, and aim to fulfill social goals, these are far from operating in a competitive environment that would theoretically lead to efficient allocations of resources.

This paper empirically supports the claim that there are inefficiencies in the provision of education to 15 year-olds. Some schools do better with the same level of human and material resource intensiveness than others. In order to account for the importance of the context in which the schools operate, the average socio-economic and cultural background of the enrolled students was included as an input of the education production function. By doing this I have assumed that schools directly incur in the cost of bringing students from disadvantaged familiar backgrounds to perform well at school. Even so, inefficient schools could have increased student outcomes, on average by 18.2 percent for the same level of resources used. Inefficiencies are notably found in schools from Iceland, Israel and Greece, but are also spread across the set of other OECD countries considered. Importantly, the global and country-level efficiency scores are not homogeneous within countries, with some education systems revealing greater equity in the provision of quality education than others (e.g., Finland). Therefore, there seems to be no one-best-way to provide efficient school education at the system-level.

The results also present some important insights for policymaking and school management. The institutional design of school-level policies and practices is important to determine their ability to provide efficient education. The results imply that larger schools, where the principal has greater autonomy in the allocation of the budget and where students are not grouped in classes according to their ability are also more efficient.

Nevertheless, all the results in this paper should be interpreted with care. Frontier analyses are usually sensible to the technique used and the number of inputs and outputs considered (Johnes 2004; Grosskopf et al. 2014). School efficiency should be here interpreted in light of the inputs which were chosen to be part of the education production function. Finally, all the results should be interpreted as correlational, not causal evidence. Further research could focus on how to best

introduce instrumental variables and on the second stage of the analysis, in order to look for more causal interpretations of the effects.

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Cross border e-commerce and its influence on SMEs in China

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1. INTRODUCTION

With the continuous development of Internet technology, cross-border e-commerce is developing rapidly, and brought considerable convenience for the development of trade, meanwhile, after the financial crisis in 2008, world trade growth started to slow down, in order to open up new markets and increase profits, more and more small and medium sized enterprises in China began to adopt cross-border e-business, expecting to bring new profit increase. According to the data published by China Electronic Commerce Research Center, every year over 90% new business entities registered in cross-border e-commerce platform are SMEs and they played an import part China's cross-border E-business' development, vigorous and fast development of e-commerce has brought new vitality to China's SMEs, but what is the situation of China's SMEs using cross-border e-commerce, What kind of impact does cross-border e-commerce have on SMEs' development, what are the problems and issues China's SMEs facing in developing cross border e-commerce, these are the issues to be discussed in this paper.

2. LITURATURE REVIEW

Development of cross border e-commerce and SME has been discussed in the business and academic circle. But the studies on the topic of development of cross-border e-commerce and its influence on SMEs are relative scarce. Researches are mainly on issues on adoption of e-commerce and factors affecting the adoption of e-commerce of SMEs. Mesut Savrul et al. (2014) studied the issues SMEs can face in changing environment and the potential of e-commerce in new environment. Bang Nam Joen et al. (2006) investigated the determining factors of the successful adoption of e-business by small and medium enterprises in Korea, and find the important determinants of the successful adoption of e-business by SMEs in Korea are: the CEO's knowledge of information technology (IT)/e-business, relative advantages and benefits from implementing e-business, governmental support, globalization strategy and the North Korea factor.⁹ Pittawa Ueasangkomsate (2015) analyzed SMEs who are exporters in Thailand to e-commerce adoption for export market and suggested Thai SMEs both exporters and non-exporters now realize great benefits of e-commerce to global market at high level¹⁰. Yang Jian-Zheng et al. (2013) conducted an empirical study on the factors affecting cross-border E-commerce development of SMEs, and e-marketing, electronic customs and international logistics are the impact of SMEs cross border e-commerce mode selection and most of SMEs who are weak at cross border e-commerce operation stay on third party cross-border e-commerce service platform.¹¹

Researches also focus on the advantages of SMEs adopting cross border e-commerce, Tao Qu (2005), Feng Chi Shen (2008), Meng Yan Wang (2014) studied the adopting of cross border e-commerce by SMEs to face the influences of a changing market environment and financial crisis. they found SMEs' adoption of cross border e-commerce can weaken the negative factors they face: more complicated trade environment, increased labor cost and rising of raw material etc.

⁹ Bang Nam Jeon, Kyeong Seok Han & Myung Jin Lee, Determining factors for the adoption of e-business: the case of SMEs in Korea, *Applied Economics*, Volume 38, 2006-issue 16 Pages 1905-1916, 21 Nov. 2006

¹⁰ Pittawat Ueasangkomsate, Adoption E-commerce for export market of small and medium enterprises in Thailand, 11th International Strategic Management Conference 2015, *Procedia-Social and Behavioral Sciences* 207 (2015) 111-120

¹¹ Yang Jian-Zheng, Yang Na-Chuan, Yang-Li-Fan, The factors affecting cross-border E-commerce development of SMEs-an empirical study, *The third Wuhan International conference on E-business-emerging operation & services management*, 2013, 749-757

In summary, most of the researches found that cross-border e-commerce did facilitate the development of SMEs, and there are still limitations regarding the adoption of cross-border E-commerce, this paper is going to analyze comprehensively the adoption of cross-border E-commerce in China and its influence on China's SMEs, and then discuss the reason of SMEs in China to adopt cross-border E-commerce and the challenges and limitations they are facing.

3. OVERVIEW OF CROSS BORDER E-COMMERCE DEVELOPMENT IN CHINA

3.1. China's cross-border e-commerce market size

In recent years, the emerging cross-border e-commerce development in China is prominent, transaction volume keeps increasing year by year, and proportion in international trade also keeps increasing, in 2008 the size of cross-border e-commerce transactions in total imports and exports is only 4.3%, this number reached to 26% in 2016. Meanwhile, cross-border e-commerce transaction volume is growing fast, the growth rate is basically maintained around 20% more or less, and in 2010 the growth rate even reached 44.6% (refer to Table 1), far exceeded the growth rate of China's GDP's (refer to Figure 2), cross-border e-commerce has become an important role in promoting China's economic growth.

In terms of total transaction volume, cross-border e-commerce in 2008 amounted to \$ 109.60 billion, \$ 131.64 billion in 2009 and \$ 978.68 billion in 2016, 7 times higher than the volume in 2008. In 2017, the estimated transaction volume is likely to reach 7.5 trillion Yuan (about 1131.2 billion US dollars), in 2018 the volume might exceed 8 trillion Yuan, reaching 8.8 trillion Yuan (about 1327.3 billion US dollars). That shows China's cross-border e-commerce market has been making tremendous contributions for China's national economic development.

According to Aliresearch's report, this fast growing speed will continue, in 2020, China's cross border e-commerce volume is estimated to reach 12 trillion Yuan, and will be about 37.6% of China's total import and export. B2C transaction volume of cross border e-commerce will exceed 3.6 trillion Yuan with an annual growth rate of 37%, and occupy over 30% of China's total cross border e-commerce volume.¹²

China is a major import and export country, and has long been in advantageous position in international trade, if the advantages in trade can combine the rapid development of cross-border e-commerce, then this will promote China's further growth in international trade, meanwhile it will create new business opportunities for China's small and medium sized enterprises, which are normally in a position with competitive disadvantage, and bring new business growth.

Table 1 China's cross - border e-commerce in 2008 - 2017

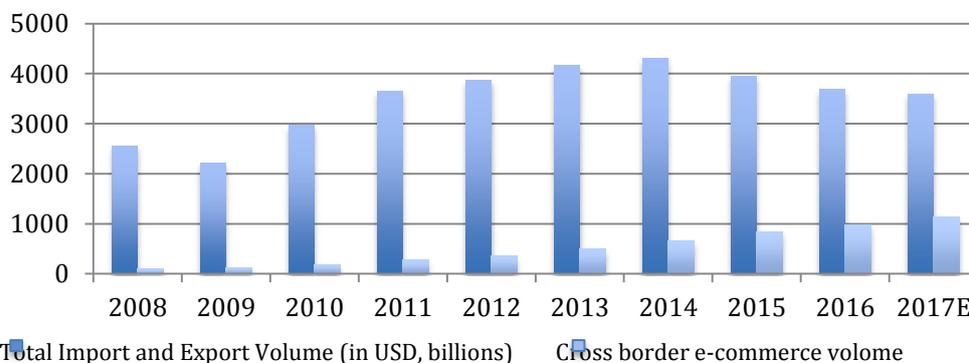
	Total import and export volume (in USD billions)	Cross border e-commerce volume (in USD billions)	Cross border e-commerce in total trade (%)	Cross border e-commerce growth rate (%)
2008	2563. 26	109. 60	4.3	N/A
2009	2207. 54	131. 64	5.9	20.1
2010	2972. 76	190. 39	6.4	44.6
2011	3641. 94	271. 84	7.5	42.8
2012	3866. 80	365. 17	9.4	34.2
2013	4160. 30	492. 97	11.8	35

¹² Future of Trade: Cross border e-commerce connecting to the World, 2016 China's cross border e-commerce development report, Aliresearch, ACERC, 2016.9

2014	4303.00	651.17	15.1	32.1
2015	3956.90	834.89	21	28.2
2016	3685.60	978.68	26	17.2
2017E	3599.90	1131.20	31	15.6

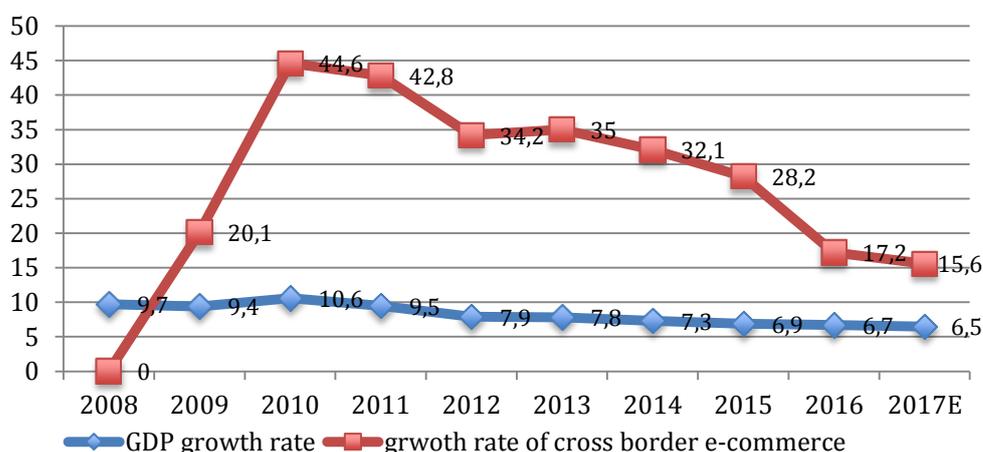
Sources: National Bureau of Statistics of China and published data of China e-commerce Research center

Figure 1 Cross border e-commerce in total trade volume (2008-2017E)



Sources: National Bureau of Statistics of China and published data of China e-commerce Research center

Figure 2 Cross border e-commerce growth rate and GDP growth rate (2008-2017E)



Sources: National Bureau of Statistics of China and published data of China e-commerce Research center

3.2. Structure of China's cross-border e-commerce

As cross-border e-commerce in China is relatively new, because of its large and stable trading volume, B2B was first to develop in China, and accounted for more than 90% of China's cross border e-commerce market (refer to Figure 3). However, cross-border e-commerce's fast development of, and the business success of participated enterprises, attracted more SMEs joined in the cross border e-commerce market, meanwhile with the facilitation of the development of international logistics, cross-border B2C transactions gradually become realizable, SMEs can use online direct marketing to reach and deliver the goods directly to overseas consumers overseas, therefore the scale of cross-border B2C is also increasing, in 2010 the proportion of B2C only accounted for 2.3% of the total cross-border e-commerce, but this proportion is increasing and is expected to reach 11.1% in 2017 (refer to figure 3).

Figure 3 Structure of China's cross border e-commerce mode



Sources: Published data of www.iresearch.cn

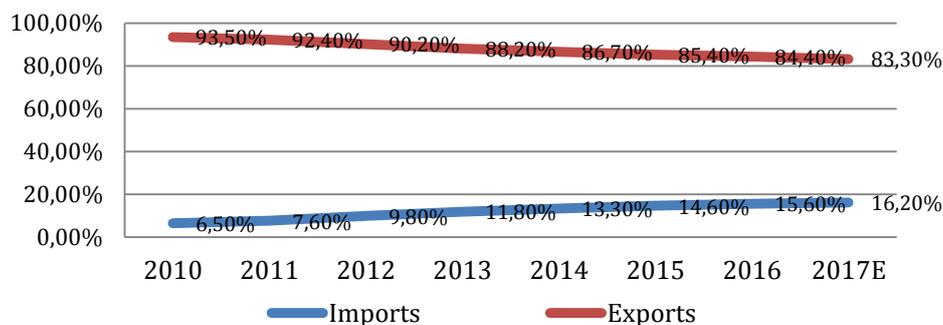
Although China's cross border e-commerce is experiencing a fast development, its structure is very imbalanced, proportion of cross-border e-commerce exports is much larger than that of imports, despite the downward trend of cross-border e-commerce exports, current export cross-border e-commerce still accounts for more than 80% of the total cross-border e-commerce volume, imports of cross-border e-commerce transactions are less than 20%(refer to Table 2 and Figure 4). The reason behind this imbalance structure is mainly because most of the demand of domestic buyers and consumers can be met by domestic e-commerce business and by traditional foreign trade, therefore did not rely on cross-border e-business imports. At the same time, China's large volume of SMEs, in order to expand the market, especially when experienced a sharp decrease of orders after the financial crisis, joined in cross border e-commerce to increase market share and profits, thus promoted the substantial increase of cross-border e-commerce exports.

Table 2 Ratio of China's cross border e-commerce imports and exports in total cross border e-commerce volume in 2010-2017 (unit: %)

	2010	2011	2012	2013	2014	2015	2016	2017
Imports	6.5	7.6	9.8	11.8	13.3	14.6	15.6	16.2
Exports	93.5	92.4	90.2	88.2	86.7	85.4	84.4	83.3

Sources: China E-commerce Research Center

Figure 4 Ratio of imports and exports in cross border e-commerce in 2010-2017E



Sources: China E-commerce Research Center

4. STATUS QUO OF CHINA'S SMES IN DEVELOPING CROSS BORDER E-COMMERCES

4.1. Situation of SMEs in China to develop cross-border e-commerce

According to the National Bureau of Statistics data in 2017-2022 depth research on China's enterprise business industry, there are more than 40 million small and medium enterprises in China, accounting for 99% of the total number of enterprises, contributing 60% of China's GDP, 50% of the tax and 80 % Of urban employment. In the cross-border e-commerce market, China's small and medium enterprises are very active, up to June 2015, E-commerce platform companies are more

than 5,000, personnel directly employed by e-commerce services enterprises are more than 2.55 million, employment driven by e-commerce has exceeded 18.35 million. In major business platforms in China, registered small and medium enterprises are more than 20 million, accounted about 98% of the total registered companies.

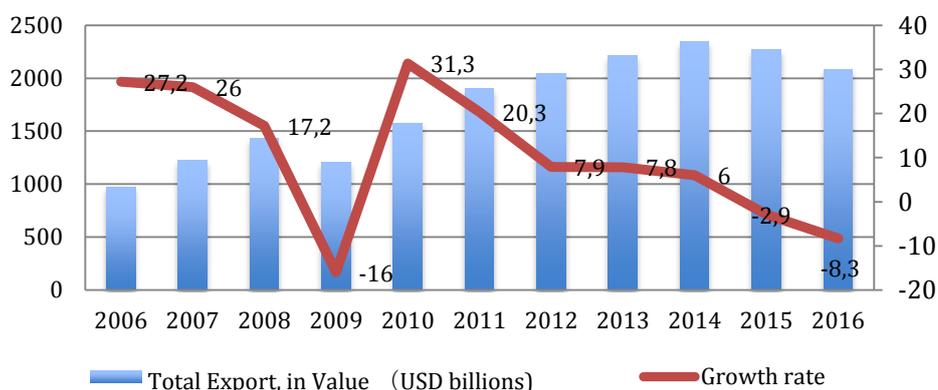
In 2013, China's e-commerce transactions totaled 10.1 trillion Yuan, of which SMEs' B2B volume occupies half of the total transaction volume, reached 51.7%, if count B2C and C2C, SMEs created a total of nearly 70% of the transaction share. In cross-border e-commerce market, SMEs also accounted for 60% of the market, and growth rate of their business reached 21.1%. Transactions in 2015 increased to 16.2 trillion Yuan, and the share in total cross border e-commerce is about 80%. In 2015, the scale of cross-border e-commerce market reached 5.3 trillion Yuan, accounting for 19.4% of the total import and export trade, cross-border e-commerce reduced the intermediate in trade, shorten the transaction cycle of trade and fasten the turnover of operating capital, and dramatically reduced the transaction cost of SMEs in trade, thus attracted considerable SMEs in cross border e-commerce and helped those SMEs increased their sales, cross border e-commerce is developing fast, and SMEs has become the main force of China's cross-border e-commerce development.

4.2. Reasons for the development of cross-border e-commerce in small and medium-sized enterprises

4.2.1. Frustration in Export

Affected by the financial crisis, the momentum of economic development of the world is no longer strong, even until now, world economy is still in recovery, and the process is slow, China's export is greatly affected, export growth started to slow down, and even showed negative growth in 2015 and 2016. Figure 5 shows that China's export volume in 2010 was 1.58 trillion US dollars, with an increase of 31.3%. However, in the last two years, China's exports have been on a downward trend, and even experienced a negative growth in 2015 and 2016, with a growth of -2.9% and -8.3%. The negative growth trend of traditional export trade growth has a huge impact on China's exports, especially on SMEs, which normally export low value-added products, and rely greatly on low manufacturing cost, but now, the cost advantage of SMEs is gradually disappearing, and their profits and overseas markets are slowly shrinking. Cross-border e-commerce has brought new opportunities for the development of SMEs. Orders in cross border e-commerce normally small and frequent and just meet China's SMEs production advantages.

Figure 5 Total export and growth rate in 2006-2016



4.2.2. Cross-border e-commerce reduced the participation cost of SMEs in trade

In traditional international trade, due to the shortness of funds and scale, and limitation of cost and risk factors, there are always a lot of obstacles for SMEs when reaching overseas buyers, and that seriously affected the growth of overseas orders of SMEs. Cross border e-commerce offer a very low cost platform for SMEs to publish their products, and those platforms' huge traffic make it

possible for SMEs to reach their potential customers and understand the customers' needs and immediately arrange production, thus reduce SMEs' marketing cost and inventory cost, and also make it possible for SMEs to find raw material suppliers. Meanwhile cross border e-commerce broke the constraints of time and geography, and platforms' credibility is an assurance for suppliers and buyers, products information became more actual and transparent, which made it easier to create more trade opportunities.

4.2.3. Support of preferential policies

Government's support also promoted the adoption of cross border e-commerce of SMEs. A lot of preferential policies for SMEs have been introduced to develop cross border e-commerce, including tax incentives, establishment of cross-border e-commerce pilot, etc. In July 2013, The State Council and the Ministry of Commerce officially announced "support foreign trade comprehensive service enterprises to supply financing, customs clearance and export tax rebates services" which will help solve the problem SMEs face in adopting cross border e-commerce. Ministry of Finance and the State Administration of Taxation issued "notice on cross-border e-commerce retail export tax policies" in January 2014, which confirmed the preferential tax policies for cross-border retail sales. SMEs, which apply cross border e-commerce, can enjoy a certain degree of export tax rebates in the future. In 2015, the State Council introduced a number of policies on supporting the development of cross-border e-commerce, such as "guidance on the promotion of the healthy and rapid development of cross-border e-commerce", puts forward measures in customs supervision, inspection and quarantine, import and export tax and payment settlement to support the development of cross-border e-commerce and create a good environment for supporting the development of cross-border e-commerce.

After those preferential policies, the level of customs supervision and service has been continuously improved. General Administration of Customs requires the implementation of cross-border electricity supplier supervision for 365 days throughout the year, which optimized cross-border e-commerce's customs clearance process, when the goods arrive the customs supervision sites, customs clearance will be done within 24 hours. Inspection and quarantine procedures are simplifying. For example, Zhejiang province issued "the guidance on inspection procedure of cross-border e-commerce", simplified the inspection process, and apply different supervision methods for direct mail and bonded import. Moreover, the import and export tax system is optimizing continuously. Government will further reduce the tax for e-commerce companies, implementing the value added tax, excise tax refund or tax exemption policies.

5. ISSUES FACED BY SMES IN ADOPTING CROSS BORDER E-COMMERCE

5.1. Issues faced by SMEs

Fast development of cross border e-commerce and supports from the government did promote the growth of SMEs, but SMEs in China are still facing a lot of problems.

5.1.1. High homogenization of exporting products and vicious price competition

With the rapid development of China's cross-border e-commerce, more and more SMEs have joined the cross-border e-commerce competition, and the competition became very fierce. Some of the export products with high profit margin showed a high homogeneity, the increased number of participated SMEs worsened the competition in price and squeezed SMEs' profits, low profits make companies lack the capability to establish good customer service and build a competitive brand, therefore lack long-term development capability.

5.1.2. Relatively difficult customs clearance

Unlike the traditional import and export trade, in cross-border e-commerce, especially in B2C e-commerce, goods value are normally small, but at present, companies have to face cumbersome customs clearance, settlement and export tax rebate procedure. Lots of domestic SMEs engaging in small amount B2B business are still facing the problems in customs declaration, commodity inspection and customs clearance.

5.1.3. Long and expensive commodity logistics

The cross-border e-commerce involves many countries with different domestic situation and policies, it is difficult for SMEs to arrange the international logistics, and the process of delivery is relatively long and relatively expensive, and delivery time is not stable, especially for goods deliver to South America, Russia etc, which normally take 25-35 days. In some of the overseas markets, the logistics of goods are difficult to trace, and occasions of lost packages occurs. B2C goods normally are transported by air and the cost is relatively high, currently, the logistics cost is about 25% of China's cross border e-commerce companies' revenue.

5.2. Reasons for obstacles faced by SMEs

5.2.1. Lack of detailed and specific stipulations and policies

Due to the rapid development of cross-border e-commerce in China, China has introduced many policies and stipulations, but lack of specific details or the specification for those policies, meanwhile supportive and preferential policies lack enforcement during implementation, which is an important factor in restricting the development of cross-border e-commerce in china.

5.2.2. Lack of stable transaction payment system

In China, the domestic payment system is very advanced, but cross border online payment normally are made by using third payment party, such as PayPal, money gram and Western Union, which all have their own limitations, either contains a high transfer fee or has transactions time limits. The well domestically adopted Alipay is not world widely used, and relative supervision on payment system is not perfect at the moment, stability and security of the online payment system contains certain risks.

5.2.3. Lack of complete cross border transportation system

As an important part in trading, logistics is one of the primary factors restricting the development of cross-border e-commerce. At present, cross border logistics used by SMEs in China is mainly through Post parcel, UPS, DHL and Fedex etc., Post parcel freight is low, but deliver time is long and customer experience is relative poor; UPS, DHL and Fedex are fast but freight is high, China's existing logistics system is developing but didn't meet the high demand of the rapid developed demands of SMEs, at the high cost of transportation is a challenge for SMEs.

5.2.4. Limitation of SMEs

Because of the limitation of the sizes, SMEs in China are normally difficult to receive credit from the bank, and difficult to hire competent personnel to expand the market, reach customers in different countries, solve disputes in trading, and offer sound aftersales services, and management in those SMEs normally lack a long term development view, all those limited China's SMEs' development as well.

6. CONCLUSION

In the last ten years, cross border e-commerce's development in China is prominent, transaction volume experienced a more than ten times increase with an annual growth rate of almost 20%, the fast development of China's cross border e-commerce promoted the development of China's export and created a very good chance and platform for China's SMEs. By adopting cross border e-commerce, SMEs in China are able to reach more markets and customers and increased sales, and their development with the facilitation of cross border e-commerce is also prominent. However, due to the incomplete development of cross border e-commerce, lack of detailed policies and stipulation, loose in implementation of existing policies, lack of supervision in payment system, high transportation costs, limitation in themselves of SMEs etc., SMEs in China are still facing a lot of problems when adopting cross border e-commerce, especially when the high development trend is predicted to continue, and those problems should not be overlooked.

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The influence of AASB 112 usefulness to financial decision making

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INTRODUCTION

General Purpose Financial Reports (GPFR) are designed to provide users with information about a reporting entity which is useful in making and evaluating decisions. That principle forms the basis of financial reporting requirements in Australia. Income taxes were very complex and existing disclosure might be insufficient to explain what drives the amount of income taxes reported. The staff identified the following specific issues: tax disclosures; discounting current tax and deferred tax; and other issues including intra-period tax allocation and interim financial statements.” (Deloitte IASPlus, May 2016, p1)

The reports prime objective is on financial reporting usefulness in decision making by users, with a particular emphasis on investors as applied to tax effect accounting (AASB112). Consideration is given to whether the financial reporting practices including related disclosures are misleading to existing and potential investors and shareholders. In that regard, the report focuses on the adoption of the tax effect accounting on selected reporting entities’ financial reports and how the inclusion or exclusion of deferred tax assets and liabilities have the potential to impact decision making by users, including investors.

1. BACKGROUND & EXPLANATION OF AASB 112: INCOME TAXES

AASB 112 is the Australian accounting standard that follows the IASB 12, the international standard equivalent (*Leo et al., 2015*). The standard covers the treatment of income taxes that come from taxable profits. Paragraph 12 of the standard establishes the treatment of current tax liabilities and current tax assets, outlining the various ways in which different transactions create taxable differences and which particular business transactions apply, such as interest revenue, and what accounts are excluded, such as good will. The same is applied to Deductible temporary differences, with examples such as research costs that are initially expensed.

AASB 112 was designed to account for future tax consequences and recognizing that current tax payable is based on income tax payable for current periods, shifting away from the liability method that did not take into account future tax consequences (*Leo et al., 2015, P. 238*). The Principle behind the new AASB standard was for certain items that would bypass the income statement for consequential re-adjustments or actions leading to deferred tax consequences previously unrecognized under former AGAAP to be recognized (*Goodwin, et al., 2008*).

2. KEY ISSUES

2.1 Decision Usefulness of General Purpose Financial Reporting (GPFR)

The central investigation looks at whether the AASB 112 treatment of deferred taxes is decision useful. The term ‘decision usefulness’ is the centre focus for financial reporting policy (*Williams & Ravenscroft, 2014*). ‘Decision usefulness’ in reporting is to report information that is ‘*useful*’ to existing investors, potential investors, creditors and other stakeholders in making informed and economic decision about providing resources to the entity (*Williams & Ravenscroft, 2014*).

2.2 Decision Usefulness of AASB112

The disclosure requirements in *AASB 112 (2010, S81)*, give guidance in disclosure the relevant tax information in the financial statements. These disclosures include what should be put to the income statement, statement of comprehensive income, balance sheet, and into the notes. These disclosures are the reports that investors see and may base decisions on. There central reason as to why tax disclosures might be ignored by Investors or not considered decision useful, is the complex nature of Deferred Tax Assets and Deferred Tax Liabilities in the language used to describe tax and the key drivers behind the reported tax figures. A report by *Deloitte IASPlus (2016)*, noted that taxes where very complicated and might not adequately explain driving forces driving the tax disclosures, noting that they might need changes in order to make tax information more understandable.

Understandability is key to decision usefulness as the reader has to discern appropriate meaning from the information, taking into account various degrees of accounting knowledge (*Smith & Taffler, 1992*). This complexity can prevent many investors from gaining an appropriate understanding of the information required for informed economic decision making. This new standard while aimed at increasing transparency and more relevant information (*Leo et al., 2015, P. 238*) can also mislead or be used to mislead, as *Graham et al, (2012)* as cited by *Badenhorst & Ferreira (2016)* note that deferred taxes are a complicated area of accounting and can cause controversy to the extent were some authors doubt their classification as assets and liabilities.

An example in which deferred tax could be used to mislead or confused was examined by *Badenhorst & Ferreira (2016)*, where they noted that managers often have an extra incentive to manipulate recognition of deferred tax assets as often they are under pressure to report rising profits. The report illustrated how deferred tax can influence investor confidence for two reasons. First, as continually recognizing deferred tax assets might signal future profits to which they can be recognized against, and second; as a form of balance sheet management, in order to keep positive book value of equity. This was characterised in the 2007-2008 global financial crisis. The study pointed out, virtually all firms were adversely affected, noting that there was more incentive for managers to manipulate the recognition of the deferred tax assets. The article by *Badenhorst & Ferreira (2016)* expresses how disclosures of deferred taxes may mislead and add to confusion. To further illustrate the point of complexity adding to confusion and lack of understandability, accountants characterize deferred tax as both ‘complex’ and ‘costly’ resulting in most users of financial statements ignoring deferred tax as they are considered not to provide relevant information as critics point out (*Chludek, 2011*).

In summary, the recognition and reporting of deferred tax is characterised as misleading and confusing. This substantiates the point that as the current disclosure requirements exist, due to their complex nature can both be manipulated and hard to understand resulting in the information being ignored due to complexity in reporting. The lends to the argument that as they stand are not considered to be decision useful.

2.3 The Investor Perspective

Investment decisions typically consider the future value of cash inflows and outflows from the business activities of a company. These cashflows are discounted to take into account the time value of money. Thus, the net present value (NPV) method involves estimation of a discount rate of many years’ worth of cashflows. In the context of deferred tax assets and liabilities, as they are non-cash items, are not considered relevant in NPV considerations – the asset to the investor is the net future cash flows expressed in today’s dollars.

2.4 Companies Assessed

INVOCARE

InvoCare , which is listed on the Australian Securities Exchange, is a leading international provider of funeral, cemetery, crematoria, and related services. It currently operates, and is a market leader, in Australia, New Zealand and Singapore.

InvoCare currently operates 270 funeral locations and 16 cemeteries and crematoria, all in competitive markets in Australia, New Zealand and Singapore. InvoCare employs around 1,800 people globally and has a current turnover of approximately \$400 million a year

AMCIL

AMCIL manages a centralized portfolio that includes 30 to 40 stocks that cover the size of the Australian stock market. Thus, with large companies on the Australian market, market-size small companies are equally significant for portfolio returns. The number of shares held in the portfolio will depend on market conditions and investment opportunities. The choice of stock in the portfolio is based on attractive valuations, as well as growth prospects and industry competition structures. Given that AMCIL's focused investment focus will be sold from time to time to fund additional investments in the portfolio. The company's mission is to provide attractive returns to shareholders through long-term strong asset appreciation and dividend income formation. According to the annual profit, the dividends paid by the company will maximize the printing credit. The allocation of realized capital gains is not our normal practice unless a mortgage is generated. As a result, AMCIL's dividend may change over time.

3. TAX EFFECT ANALYSIS

In order to demonstrate the effect of deferred tax (assets and liabilities) on the users' ability to gain an understanding of a company's performance and financial position, ratio analysis of two ASX listed companies have been carried out (see appendix).

3.1 Method

The first step in identifying the effect of deferred taxes on a company's performance was to identify each company's assets, liabilities, and the net value of any deferred tax. Where relevant, the net value of deferred taxes allowed the asset, liability, and equity figures provided in the financial statements to be adjusted for tax effect (see appendix).

3.2 Principle

It is important to note that the respective total assets and total liabilities (balances) have been reduced by the gross values of the deferred tax assets and deferred tax liabilities. Ordinarily, the net differences between the opening and closing balances would be adjusted to reflect the amended equity position of the companies.

3.3 Practice

The first step in identifying the effect of deferred taxes on a company's performance was to identify each company's assets, liabilities, and the net value of any deferred taxes. Where relevant, the net value of deferred taxes allowed the asset, liability, and equity figures provided in the financial statements to be adjusted for tax effect (see appendix).

3.4 Application

The Debt Ratio is used to estimate the extent to which a company is leveraged by debt. The debt ratio is expressed as a percentage; the higher the percentage of debt the more leveraged the company.

$$\text{debt ratio} = \frac{\text{total liabilities}}{\text{total assets}}$$

Net Debt to Equity is a measure of how financially leveraged a company is and represents the amount of debt the company has incurred relative to the value of shareholders' equity.

$$\text{net debt to equity} = \frac{\text{total borrowings} - \text{cash}}{\text{shareholder equity}}$$

Effective tax rate is the amount of tax expensed compared to the taxable income of an entity.

$$\text{effective tax} = \frac{\text{income tax expense}}{\text{pre tax income}}$$

The Return of Equity (ROE) is useful for comparing the profitability of one company to another; it shows the percentage return on shareholder equity held in the company. This the most essential performance indicator.

$$\text{ROE} = \frac{\text{net profit after tax}}{\text{shareholder equity}}$$

Return on Assets (ROA) is a prime indicator of a Company's profitability relative to its total assets. ROA demonstrates the benefits of investing in assets.

$$\text{debt to equity} = \frac{\text{net profit after tax}}{\text{total assets}}$$

3.5 Outcomes & Observations

	Invocare		Amcil	
NET DEBT TO EQUITY	FY16	FY15	FY16	FY15
Per financial statement data	95.18%	109.17%	(3.33%)	(6.31%)
Adjusted for tax effect	80.98%	92.59%	(3.11%)	(5.92%)

Observation: Deferred tax understates a company's true debt-to-equity ratio. However, in the instance a company does not rely on financing, i.e. superannuation or investment funds, the debt-to-equity ratio is not significant to decision making.

	Invocare		Amcil	
EFFECTIVE TAX RATE	FY16	FY15	FY16	FY15
Per financial statement data	29.22%	32.73%	13.06%	5.10%
Adjusted for tax effect	24.97%	31.01%	18.21%	24.77%

Observation: Deferred tax complicates the perception of tax paid versus tax payable. Regardless of the nature of the company, the existence of deferred tax, without identifying the timing of taxable events, may severely mislead users as to the full extent of tax liabilities.

RETURN ON EQUITY	Invocare		Amcil	
	FY16	FY15	FY16	FY15
Per financial statement data	30.34%	27.02%	3.47%	3.39%
Adjusted for tax effect	25.81%	22.92%	3.24%	3.18%

Observation: With respect to ROE, tax effect accounting will most likely distort the overall performance at points in time. However, it is reasonable to infer that if deferred tax didn't exist there would not be timing differences to be adjusted in future profits.

RETURN ON ASSETS	Invocare		Amcil	
	FY16	FY15	FY16	FY15
Per financial statement data	6.55%	5.45%	3.18%	3.14%
Adjusted for tax effect	5.56%	5.46%	3.18%	3.14%

Observation: Results from the analysis carried out did not reflect any conclusive findings with respect to deferred tax adjustments and ROA. However, as indicated above, the timing differences are critical in the measurement of profit.

CONCLUSION

Taking account of the above, it is important to note the inclusion or exclusion of deferred taxes is not a material event in the financial reports of the respective companies. That said, however, there is a telling point with Amcil. It is significant to note that the directors have made a definitive statement (see p. 26, subsequent to note 2B) about the settlement of a deferred tax liability, which, in all likelihood, will not be realised. In other words, the standard has imposed an obligation on them that they do not believe will occur.

This is exemplified within the two financial statements reviewed later in the report from Amcil Ltd and Invocare Ltd. *Invocare (2016)* financial reports makes note of the treatment of its deferred tax in line with the standard, however does not make note of the key drivers in the tax figures shown. *Amcil (2016, p.26)* on the other hand shows differences in the notes to Invocare, as Amcil somewhat breaks down its DTL figure however the disclosure is still complex. The notes state that the DTL amount is unlikely to arise as the board does not intend to sell the portfolio. This is somewhat a subjective statement as Amcil's position could change regarding its portfolio. The observation, in line with academic literature, shows that these disclosures both do not well inform the user of the driving elements of the deferred tax figures.

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APPENDIX

Leverage/Gearing					
Debt Ratio					
= total liabilities / total assets					
		IVOCARE		Amcil	
		FY16	FY15	FY16	FY15
Total Assets (per financial statements)	(per financial statements)	\$ 1,085,191	\$ 1,008,609	\$ 242,050	\$ 222,117
Total Liabilities (per financial statements)	(per financial statements)	\$ 850,981	\$ 805,171	\$ 20,757	\$ 16,447
Deferred Tax Assets (per financial statements)	(per financial statements)	\$ 1,481	\$ 2,326	\$ -	\$ -
Deferred Tax Liabilities (per financial statements)	(per financial statements)	-\$ 42,543	-\$ 38,746	-\$ 16,163	-\$ 13,540
Total Assets (adjusted for deferred tax)	(adjusted for deferred tax)	\$ 1,083,710	\$ 1,006,283	\$ 242,050	\$ 222,117
Total Liabilities (adjusted for deferred tax)	(adjusted for deferred tax)	\$ 893,524	\$ 843,917	\$ 36,920	\$ 29,987

Total Deferred Tax	-\$ 41,062	-\$ 36,420	-\$ 16,163	-\$ 13,540
Debt Ratio (per financial statements)	78.42%	79.83%	8.58%	7.40%
Debt Ratio (adjusted for deferred tax)	82.45%	83.86%	15.25%	13.50%

Leverage/Gearing				
Optimal Leverage Ratio				
= net debt / EBITDA				
unable to adjust for deferred tax				
	IVOCARE		Amcil	
	FY16	FY15	FY16	FY15
Net Debt	\$ 222,927	\$ 222,093	-\$ 7,375	-\$ 12,973
EBITDA	\$ 112,279	\$ 105,246	\$ 6,909	\$ 7,883
	1.99	2.11	- 1.07	- 1.65

Leverage/Gearing				
Net Debt to Equity Ratio				
(Gearing Ratio)				
= net debt / shareholder equity				
	IVOCARE		Amcil	
	FY16	FY15	FY16	FY15
Borrowings (per financial statements)	\$ 234,455	\$ 230,772	\$ -	\$ -
Less cash and cash equivalents (per financial statements)	\$ 11,528	\$ 8,679	\$ 7,375	\$ 12,973
= Net Debt	\$ 222,927	\$ 222,093	-\$ 7,375	-\$ 12,973
Total Deferred Tax	-\$ 41,062	-\$ 36,420	-\$ 16,163	-\$ 13,540
Shareholder Equity (per financial statements)	\$ 234,210	\$ 203,438	\$ 221,293	\$ 205,670
Shareholder Equity (adjusted for deferred tax)	\$ 275,272	\$ 239,858	\$ 237,456	\$ 219,210
Debt Ratio (per financial statements)	95.18%	109.17%	-3.33%	-6.31%
Debt Ratio (adjusted for deferred tax)	80.98%	92.59%	-3.11%	-5.92%

Performance				
Return on Equity				
= NPAT / shareholder equity				
	IVOCARE		Amcil	
	FY16	FY15	FY16	FY15
Net Profit After Tax	\$	\$	\$	\$

	71,048	54,969	7,687	6,980
	-\$	-\$	-\$	-\$
Total Deferred Tax	41,062	36,420	16,163	13,540
Shareholder Equity (per financial statements)	\$ 234,210	\$ 203,438	\$ 221,293	\$ 205,670
Shareholder Equity (adjusted for deferred tax)	\$ 275,272	\$ 239,858	\$ 237,456	\$ 219,210
RoE (per financial statements)	30.34%	27.02%	3.47%	3.39%
RoE (adjusted for deferred tax)	25.81%	22.92%	3.24%	3.18%

Performance				
Return on Assets				
= NPAT / total assets				
	IVOCARE		Amcil	
	FY16	FY15	FY16	FY15
	\$	\$	\$	\$
Net Profit After Tax	71,048	54,969	7,687	6,980
	-\$	-\$	-\$	-\$
Total Deferred Tax	41,062	36,420	16,163	13,540
	\$	\$	\$	\$
Assets (per financial statements)	1,085,191	1,008,609	242,050	222,117
	\$	\$	\$	\$
Assets (adjusted for deferred tax)	1,083,710	1,006,283	242,050	222,117
RoA (per financial statements)	6.55%	5.45%	3.18%	3.14%
RoA (adjusted for deferred tax)	6.56%	5.46%	3.18%	3.14%

Performance				
Effective Tax Rate				
= income tax expense / pre-tax income				
	IVOCARE		Amcil	
	FY16	FY15	FY16	FY15
	\$	\$	\$	\$
Pre Tax Income (per financial statements)	100,372	81,716	8,842	7,355
Current Tax (per financial statements)	-\$ 29,324	-\$ 26,747	-\$ 1,155	-\$ 375
	\$	\$	-\$	-\$
Add Deferred Tax Asset (Liability)	4,259	1,406	455	1,447
	-\$	-\$	-\$	-\$
= Adjusted Current Tax	25,065	25,341	1,610	1,822
Effective Tax Rate (per financial statements)	-29.22%	-32.73%	-13.06%	-5.10%
Effective Tax Rate (adjusted for deferred tax)	-24.97%	-31.01%	-18.21%	-24.77%

The Equivalent Mechanism of Accounting Standards in the Belt and Road Initiatives

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ABSTRACT

This paper studies the reasons why the coordination fashion of current accounting standards is disagree with for the development strategy of the 'Belt and Road Initiative', and puts forward a suitable coordination method of accounting standard, which is: Central Asian countries neither adopt nor choose the convergency with international accounting standards, based on specific economic activities and guided by investors' decision-making, referring to international accounting standards, implementing the equivalence of accounting standards in the form of dialogue and consultation between China and Central Asian countries under the framework of the Shanghai Economic Cooperation Organization.

1. THE INTORDUCTION OF THE QUESTION

With economic growth rates making the world sit up and take notice, people's living standards having improved significantly, China is undergoing a historic metamorphosis. The development of economy determines the change of accounting, which will influence and react to the growth of economy. Such influences and reaction may lead to the reflection of economic effect and management effect of accounting(Zhu,1997). From Marx's exposition of capitalist production process and bookkeeping, to Zhu Rongji and other national leaders pay attention and personally boost the development of accounting in China, and then to the summit of G20 focus on the establishment of a high standard of global accounting standards, fully explained accounting plays an important role in the development of national economy and the harmonious development of global economy. The major strategic initiatives of the construction and development of the Silk Road Economic Belt and t21st-Century Maritime Silk Road, which were put forward by General Secretary Xi Jinping, offers an uncommon turning point to promote accounting alteration(Ge,2006). Contains the economic cooperation as the main axis, the humanities exchange as the support, the understanding and inclusion as the thought of the cooperative ideology, encompassing a number of countries and regions of the emerging economic growth of the embryonic beginning, its connotation can be interpreted as: financial cooperation, industrial cooperation, energy development, infrastructure construction, to achieve regional win-win. In the process which'the Belt and Road Initiatives' has been unceasingly enriched, deepened and constructed, the orientation and focus of China's accounting industry should be placed on the promotion and coordination of'the Belt and Road Initiatives' strategy. Fig. 1 is the logical structure of this paper, we will follow the following thoughts: through the interpretation of the connotation of 'the Belt and Road Initiatives', well defined goals which propose new requirements for accounting and the changes in accounting, and after that, this paper will put forward the accounting needs to change the boundary and figure out how to transform.

By reviewing the existing literature, we find that there are two kinds of regional accounting standards coordination methods: regional accounting standards convergence and accounting standards equivalence. The convergence of regional accounting standards means that different accounting standards convergency at the unanimous standard, while international accounting standards are chosen as benchmark (Paton,1970), so as to reduce the divergency between different accounting standards, improve comparability, and thus reduce transaction costs. Under the environment of global economic integration, the international convergency of accounting standards

is an inevitable trend. However the concrete conditions of each country are different, the convergency of international accounting standards also depends on the national conditions, the convergency of demand and the way of convergency. Besides choosing the right time point is of great concern, otherwise it may bring adverse effects to the country(Chen&Yu,2015). All of these mean that the study needs to draw forth another coordinated approach to accounting standards, namely the equivalent of accounting standards, which mainly goes through two processes: to converge with international accounting standards, and to carry on the equivalent of accounting standards in accordance with specific conditions of countries. The former process is the foundation of latter one, which means the current accounting standards equivalent mechanism is established on the basis of the convergence of international accounting standards(Meng,1997). If an investor makes similar judgments on the financial situation and development prospect of the securities issuing enterprises and is likely to make the identical investment decisions whether the financial statement of this enterprises is based on a third country's accounting standard or a financial statement based on IFRS, then it might be considered that the accounting standards of third countries are equivalent to International Financial Reporting Standards (IFRS). The European Union puts forward this concept at first and has successfully applied the equivalent mechanism of accounting standards on the basis of international convergence of accounting standards, which has been adopted by many countries and regions, with the enormous influences in global perspective. One prerequisite for the harmonization of this criterion is that the accounting system should be perfected.

Reduce transaction costs, increase comparability of accounting information, and promote economic cooperation and exchange among different countries are the shared goals of the convergence of accounting standards and the equivalence of accounting standards. The difference between the two blended approaches might be: first, the convergence of accounting standards emphasizes the harmonization of accounting standards with a common standard, thus improving the comparability of accounting standards (Sun,2002).while accounting standards are equivalent to emphasizing the mutual cooperation and mutual compromise between countries, accounting standards to allow the differences between different accounting standards as long as these differences do not affect investors ' decision-making. Second, the convergence of accounting standards does not have an explicit criterion for judgments, which mainly require the formal similarity or consistency. However the equivalence of accounting standards requires some regulations and policy directives.

2. POSSIBLE REASONS FOR THE INADAPTABILITY BETWEEN THE CURRENT HARMONIZATION OF ACCOUNTING AND CHINA AND CENTRAL ASIAN COUNTRIES.

Through the comparison of regional accounting standards and the equivalence of regional accounting standards, it can be found that the current two regional accounting standards coordinated approach is facing the same premise-that is China and Central Asian countries all need to be converged with the international accounting standards. However, the international accounting standards are not necessarily applicable to countries and regions with weak capital market and imperfect supervision because the formulation of IAS is mainly based on the relatively developed capital market and the relatively perfect supervision of the country(Li&Nie,2005). In particular, for those economically underdeveloped regions, convergence does not necessarily bring more benefits, and whether a country does not converge with international accounting standards depends both on the degree of convergence and on whether the benefits of convergence outweigh the disadvantages. China has basically realized the convergence with the international accounting standards. However the relevant researchs indicate that as a result of the relatively backward economic development level, the relatively unitary economic structure, the underdeveloped capital market and the low participation of international economic activities, the Central Asian countries' demand for convergence with international accounting standards is low and the motivation is not strong 这里要是想写积极性差 可以用enthusiasm is poor. Similarly, the implementation of the convergence

with international accounting standards may incur a great cost, it, nevertheless, is likely to result in relatively low returns due to the small-scale international trade and imperfect capital markets. In addition, the current regional accounting standards coordination method is mainly used in the regions and countries where the economy is more developed and the accounting system is comparatively perfect, such as the European Union, while restricted by the level of economic development. The accounting system and the supervision of Central Asian countries are relatively imperfect (Wu, 2007), the current harmonization of regional accounting standards is not in line with the short-term common interests of Central Asian countries. The mutation of the accounting standards convergence or equivalent cost high while gains little, what is more, the realization of the international accounting standards convergence in the short term maybe not realistic. Nevertheless, the development of 'the Belt and Road Initiatives' strategy is imminent, therefore, it is necessary to put forward a kind of innovative accounting standard coordination mode which is suitable for the current 'the Belt and Road Initiatives' strategy.

3. THE ADVANTAGES OF ACCOUNTING STANDARDS EQUIVALENT MECHANISM BY ADAPTING 'THE BELT AND ROAD INITIATIVES' STRATEGY

3.1. To propose the equivalent method of new accounting standards

According to the definition of equivalence of the accounting standards proposed by the European Union, the key to the equivalence of accounting standards is not the same as that of the standard. However, it is vital to know that whether investors can make similar decisions according to two sets of different accounting standards because investors might be highly likely to not be able to make similar investment decision, especially with the greatly differences between those two sets of accounting standards. In this case, the question arises, which is how to solve the problem that two sets of different accounting standards have wide variations? China and Central Asian countries should engage in dialogue and consultation on current trade exchanges and economic sphere with more capital flows is the best way for the Central Asian countries, the issuance of policy directives to replace the EU so-called convergence of international accounting standards. In this way, investors can make similar investment decisions in the significant areas of cooperation according to these policy directives, making the accounting standards in some economic areas of China and Central Asian countries equivalent, so as to promote the rapid development of key economic cooperation areas under the strategy of 'the Belt and Road Initiatives', the development of these key economic areas, in turn, will promote accounting equivalence in other fields, thus achieving a full range of accounting standards is equivalent.

It is likely to be confident that the equivalence of accounting standards between China and Central Asian countries is a dynamic process, which will gradually evolve with the increasing of trade between China and Central Asian countries, the comprehensive deepening of economic and financial cooperation and the continuous development of capital market. Different seedtime has different requirements to the equivalence degree of accounting standards, the present economic and trade cooperation between China and Central Asia countries is uneven. For instance, China's trade with Kazakhstan accounts for more than 60%, while trade with other Central Asian countries is small. Further, China and Central Asian countries have a single trade structure. China mainly imports resource-based commodity from Central Asia, while the Central Asian countries principally imported textile, light industry and machinery and other traditional commodities from China. Due to the characteristics of China and Central Asian countries, that they can be mutual complements in economy, with the unitary activities of import and investment, thus it is seems feasible to realize the equivalence of accounting standards from key areas to all-round. Importantly, the new accounting criterion should be a relatively open and progressive system. Moreover, the promotion of accounting standards is also related to the equivalent cost-benefit of accounting standards in different countries (Hou, 2014), only when the equivalent return is greater than the equivalent cost, the equivalence of accounting standards will be further deepened.

At present, the equivalent mechanism of the accounting standards for the strategic development of 'the Belt and Road Initiatives' is based on specific economic activities and guided by investors' decision-making, referring to international accounting standards. Implementing the equivalence of accounting standards in the form of dialogue and consultation between China and Central Asian countries under the framework of the Shanghai Economic Cooperation Organization, will assist to the achievement of the basic objective. Such key areas or industries realized equivalence of accounting standards at first. The basic method is to compare the differences of specific accounting standards between China and Central Asian countries, guided the investors' decision-making, consulting the International accounting standards, national accounting standards-setting bodies should negotiate to eliminate factors that led investors to make different investment decisions in the first place, and then discusses the issue of policy directives, which will be implemented concretely by China and Central Asian countries. The fundamental difference between the accounting standard equivalence method and the European Union accounting standard is that it does not have the requirement that countries should be converged with international accounting standards, instead, the relevant accounting standards for each type of economic activity will be discussed, and policy directives will be issued to ensure that investment decisions are not affected.

3.2. The advantages of the new accounting standard equivalent method

There are several merits for the new accounting standard equivalent fashion. First, making the best of the characteristics that the scale of trade is small and the structure is unitary, China and Central Asian countries can be equivalent to accounting standards in the areas where the commercial intercourse is comparatively large (Coase, 1960), accelerating cooperation and development in these domains, so as to stimulating cooperative development in other areas, and in turn promoting the equivalence of these driven areas of accounting standards. Secondly, this is a relatively open and inclusive accounting standards equivalent mechanism, from simple to complex, from the point and face, from the key areas of accounting standards equivalent to a comprehensive Chinese and Central Asian countries accounting standards are equivalent. Realizing consulted the international accounting standards, when the accounting standards are equivalent (Li, 2006), so that China and Central Asian countries accounting Standards will not deviate from the direction of international accounting standards in the process of equivalence, which not only in line with the background of economic globalization, but also widen the economic space development of the Silk Route. Furthermore, it promoted the accounting exchanges between China and Central Asian countries, and put the development of accounting level in Central Asian countries in motion. As China has already achieved convergence with international accounting standards, the interflow and exchange of accounting standards between China and Central Asian countries can enhance the accounting standards of Central Asian countries and boost their convergence with international accounting standards. Moreover, the equivalence of accounting standards in this pattern has the advantages of low cost and incremental, not only conform to the strategic background of the Silk Road Economic Belt, while also makes the economy of the Central Asian countries achieve steady growth. The last but not least, China, Kazakhstan, Tajikistan, Kyrgyzstan and Uzbekistan are the member states of the Shanghai Cooperation Organization, Turkmenistan is a participant, which facilitates the equivalence of accounting standards between China and Central Asian countries through dialogue and consultation, meanwhile, it is convenient to release and implement the policy directives, which are related to the equivalence of accounting standards in China and Central Asian countries, thus it will be conducive to improve the efficiency of accounting standards.

4. THE MEASUREMENT OF FINANCIAL ACCOUNTING UNDER THE FINANCIAL COOPERATION

'Belt and Road Initiatives' is essentially a sub-regional cooperation across borders, in which financial cooperation is a prerequisite and an important element of cooperation among countries.

Along with the steady implementation of 'Belt and Road Initiatives', China will give full play to the financial leading role in cooperation with the countries along the 'Asian Investment bank' and 'Silk Road Fund'(Xu,2009).'Belt and Road Initiatives' is not a solo in China, but the chorus of the country. Therefore, in the financial cooperation process, it is unavoidable to face the great disparity between the complexity of the big power game and its financial level. The focus of the game of big Powers is not only on economic interests, but also on non-economic interests (such as national interests), but the disparity of financial level in the countries along the way impels it pay more attention to the problem of non-economic interests in the 'Belt and Road Initiatives'. As a tool that is directly related to the wealth (interest) in financial cooperation, accounting is endowed with faithfully represent the essential function of wealth (interest) and its alteration. The new system of open economy may lead to explosive growth in the type of wealth, and accounting's measurement of wealth will become increasingly complex and significant. The coordination and harmonious relationship between economic benefit and non-economic benefit is the vital link in holding the sub-regional financial cooperation together (Yang&Cao, 2010), and the requirement to function of accounting leading to resource flow and distribution will be stronger and higher. The measurement unit of accounting has a consensus(Feng, 2011), the currency as the main unit of measurement, but also use practice, labor (time) and other units. Undoubtedly, in financial cooperation under the'Belt and Road Initiatives', this consensus will be confronted with a new problem: More and more national interests present in the superpower games and in the decision-making situation of countries along the route, then, whether analogous non-economic benefits can be recognized and measured by accounting, and whether or not non-monetary units can be measured more intuitively and reliably on certain issues, and then provide a scientific basis for the allocation of resources?

'Reflection' is the essence of accounting; 'measurement' is the inherent basic function of accounting. Under the same standards of accounting measurement, the accounting information presented by different measurement units has different meanings. If the accounting unit selects improperly, the accounting information passed out will be greatly compromised in relevance and usefulness, and even mislead the accounting information users to make the wrong decision. Therefore, in the financial cooperation under the'Belt and Road Initiatives', the study of accounting units of measurement will be an substantial part of the study of accounting theory. In the stage of the original measurement, the object of accounting measurement is specially appointed, and its unit of measurement is also a given unit; With the increasing complexity of production activities, especially the rapid development of commodity economy and financial innovation and cooperation, 'value' becomes the standard and object of measurement. The consensus of currency as the main unit of measurement is reached. However, prices and currencies are not such vital. By contrast, what is matter is the service behind the account, which hides the tangible or intangible carriers of the service (Paton and Littleton, 1940). In order to ensure that the accounting information provided can meet the specific needs of the users of different accounting information, and correspond to the demands of various metering purposes, the accounting measurement is necessary to select various units of measurement in different stages and scopes. In other words, in the specific decision-making environment, it is obliged to select the appropriate measurement units according to the actual impersonal requirement. The main units should no longer be restricted to the monetary unit. First of all, the quality of economic benefits (cost externalities, natural resources consumption, etc.) obtained in the sub-regional financial cooperation across the border will be paid unprecedented concerns. Therefore, the economic quality reflected from the accounting needs to reform and innovate, the natural attribute measurement unit (physical quantity measurement and quantity measurement), which is not affected by the change of social environment, will be combined with monetary measurement units to provide more comprehensive, intact and objective accounting measurement information(Shen&Liao, 2014). Secondly, with regard to the measurement of non-economic benefits (Chen, 1998), it is difficult to meet the needs of the users of accounting information by using natural attribute measurement units, which means accounting should play a role in the broader field, participate in national governance, have a holistic vision(Yang, 2014), and accurately grasp and dialysis the non-economic consequences of decision-making behavior. On the

basis of the natural attribute measurement units of physical quantity or labor, the conversion ratio between nonstandard quantity and standard quantity is measured and adjusted. The measurement units which are based on the standard unit of measurement and transcending the original natural attribute are obtained. Then it forms the non-monetary measure unit of social attribute, which facilitates the comparison and analysis of the similar economic services along the country, so as to actualize the accurate metering of the non-economic benefit.

5. CONCLUSION

The above alteration and innovation need the guidance of the standard-setting level and the support of the financial report. Therefore, with the financial cooperation under the 'Belt and Road Initiatives' continues to deepen, accounting standards and financial statements will gain reformulated and improved.

Standing in the new historical starting point to look to the future, the study works should think about how to computation the economic and non-economic interests centre on 'the Belt and Road Initiatives', reasonably channel off the flow and distribution of resources in financial cooperation? How to promote the transformation of accounting function and concept change, participate in the economic management activities of the organization, and then play the role of value creation? How to assist the ecological construction, provide accounting theory support and guidance to reduce the cost of ecological environment in the 'the Belt and Road Initiatives'? How to take into account social equity and efficiency, play a clear right and responsibility, guardian economic democracy and the important function of economic order? How to innovate accounting personnel training and evaluation system and strengthen the intelligence and talent support of the construction of 'the Belt and Road Initiatives'? We will carry on the thorough discussion and the ponder to the above question, look forward to the benefit of China's accounting transformation, making the account play an indispensable role to the construction of 'Belt and Road Initiatives'.

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What is prison for? The “professional ethos” of prison guards and education officers

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ABSTRACT

The Portuguese state has been consistently adamant in affirming the rehabilitative and humanist focus of its penal policies for the last forty years. Recently, a surge in the incarceration rate - which rose from 102 inmates per 100 000 inhabitants in 2008, to 134 in 2016¹³ - coupled with a political and economic crisis, has placed this general orientation under renewed pressure. Drawing upon interviews and ethnographic fieldwork carried out in two Portuguese prisons, this paper will propose some exploratory remarks concerning the “professional ethos” which prison guards and education officers deploy in order to bring to life the system’s utilitarian goal. The two prisons under analysis - Oporto and Guarda - differ in their overall characteristics and problems, making their comparison relevant for the understanding of the Portuguese penal context.

1. INTRODUCTION

The Portuguese state has been consistently adamant in affirming the rehabilitative and humanist focus of its penal policies for the last forty years. The different strains of penal law which emerged from the post-revolution democratic society in 1974 remain a point of pride among penal experts and politicians and are constantly hailed as a civilizational achievement. However, they have been constantly tried by different sets of historic circumstances, the project of a utilitarian prison being no exception. Currently, a surge in the incarceration rate - which rose from 102 inmates per 100 000 inhabitants in 2008, to 134 in 2016 - coupled with a political and economic crisis, has placed this general orientation under renewed pressure. Drawing upon interviews and ethnographic fieldwork carried out in two Portuguese prisons, this paper will propose some exploratory remarks concerning the “professional ethos” (Fassin, 2015) which prison guards and education officers deploy in order to bring to life the system’s utilitarian goal. The two prisons under analysis - Oporto and Guarda¹⁴ - differ in their overall characteristics and problems, making their comparison relevant for the understanding of the Portuguese penal context.

As Didier Fassin (2015) reminds us, the state is not an abstraction. It cannot be boiled down to a specific rationality, directives or set laws. Instead, it is the product of a dialectic relationship between the “professional ethos” and “moral subjectivities” of individuals and the prerogatives of the State and shifting “moral economies” (*idem*). In other words, it is created by its institutions and agents in everyday situations. Therefore, to understand prison daily life we must understand the motivations, expectations, and worldview of those who work in these institutions, and how they intersect with overarching objectives, priorities and concerns. Having that in mind, I will, firstly, present a succinct overview of the Portuguese penal system’s current situation and discuss the official discourse which surrounds it. After that, I will describe the different institutional settings which will be analyzed in this paper. Finally, I will explore the “professional ethos” (Fassin, 2015) of prison guards and education officers

2. THE PORTUGUESE PENAL SYSTEM: AN OVERVIEW

¹³ Data from the [World Prison Brief](#).

¹⁴ I carried out this fieldwork when I was a research assistant in the project “Human Security: Perspectives, Subjectivities and Experiences”, coordinated by Professor Catarina Frois and funded by the Gerda Henkel Foundation, to which I’m indebted.

There is a sort of utilitarian ethos which pervades official Portuguese discourses about prison. Politicians and penal experts will often praise the progressive and humanist nature of Portuguese penal law and highlight its short sentences, its aversion to retributive punishment, the way it assures inmates full citizenship rights and, perhaps most importantly, the way it sees social reintegration as prison's main goal. It is interesting to notice how Portuguese penal laws are frequently framed as a sort of civilizational achievement, a testimony of the nation's development and forward thinking institutions. In a sense, this attitude towards penal law seems to be a part of a broader attitude towards development on the part of political and academic elites, which base their discourses - and sometimes their policies - on a supposed need to counter a chronic underdevelopment and lack of modernization (Frois, 2013).

However, it is no secret to anyone that there is a consistent lag between the promise of Portuguese penal law and the reality of Portuguese prisons. The ideal of a utilitarian prison has been continuously challenged by a changing set of circumstances since 1974. In current times, it has been affected by a trying conjuncture which combines a surge in the incarceration rate with a political and economic crisis, which peaked when, in 2011, the government declared the need for a financial bailout and subsequently stepped down¹⁵.

In between 2008 and 2016, the incarceration rate rose from 102 to 134 inmates per 100 000 inhabitants¹⁶, causing a considerable increase of the prison population. Currently, although the system as an overall capacity for 12 600 inmates, it houses approximately 13 779 individuals. In 2007, it had room for 12416 inmates and housed 11587¹⁷. In short, this means an increase of 15% in less than 10 years. This, has, of course, aggravated a set of underlying issues which have affect the Portuguese penitentiary system since 1974. Many prisons do not comply with the law which mandates that there be only one inmate per cell. This means that many of the Portuguese prison establishments have two or three individuals per cell, but also, in many cases, that there even more in spaces destined for individual housing. Furthermore, the overcrowding issues in many prisons prevent the *de facto* triage of inmates which is deemed essential for the accomplishment of the system's goals. Custody inmates share their surroundings with convicted felons; low level offenders - convicted for sentences up to three years - share their cells with inmates who were convicted up to twenty years. Also, most of the prison establishments lack in specialized work force, namely prison guards and rehabilitation officers. In fact, during the last years the system has been plagued by countless strikes of prison guards, which demand not only the actualization of their salaries, but also the hiring of more of their colleagues. It is the case that many guards say that it is impossible for the prisons they work in to be safe places. Finally, just to give one more example, some prisons lack in occupations for inmates - be they recreational or labor-oriented - and end up inflicting a punishing lethargy upon many individuals which, again, is counterintuitive to the system's design and goals.

The new director of the Portuguese Prison Services - who entered office in 2015 - addressed these issues in a recent speech where he confronted critics who agreed that Portuguese prisons don't live up to the standards of Portuguese Law:

“Dear friends, we can talk a lot, speak of rights and even name articles of the law. We can do that. But that that is meaningless if we really mean to address the real problem. The problem of the prison system will only be solved when, first and foremost, we address the size of our prison population (...). We have to change the attitudes of our courts or we aren't going anywhere. That's the cause of our problems. As long as we have 14 000 inmates there is no adequate solution¹⁸.”

¹⁵ <https://www.theguardian.com/business/2011/apr/06/portugal-admits-need-for-eu-financial-lifeline>

¹⁶ Data from the [World Prison Brief](#).

¹⁷ Data from Direção Geral dos Serviços Prisionais e da Reinserção Social. <http://www.dgsp.mj.pt/>

¹⁸ This speech is from a conference organized by the Portuguese Bar Association in 2016, entitled: “Our prisons: which present and which future?” <https://portal.oa.pt/comunicacao/noticias/2016/10/as-nossas-prisoos-que-presente-e-que-futuro-galeria-de-imagens/>

This excerpt reflects the position of the current administration, which claims there is a sizable proportion of inmates who wouldn't necessarily have to be in prison. Supposedly, amongst these, there are inmates which are denied access to electronic bracelets for overzealous reasons, who are imprisoned for minor offences, and who are denied early leave with no apparent justification. In short, there can be no upholding of the law if, quoting the Director of the Portuguese Prison Services, there are people who are in prison "for trivialities"¹⁹. The fault, therefore, must be found in the courts and in their overly punitive interpretation of the different strains of the Portuguese penal law, which, in their view, has been spiking the incarceration rate. In turn, the solution for this administration - including the current minister of justice - has been to actively promote alternatives to imprisonment, such as electronic bracelets²⁰.

However, this is not a new problem (neither are the solutions). Ever since 1974, there has been a contradiction between the spirit of Portuguese penal law, and the reality of criminal policy. It's not even a contradiction which resumes itself to the realm of penal law and practices. Many have noticed that there is a persistent inconsistency between the general set of laws ushered in by the revolution and the practices of the general population. For some, this is even a characteristic which can describe Portuguese Society post 1974 (Sousa Santos, 1990; Ferreira, 1999; Barreto 2000; Bravo, 2000; Costa, 2003). The fact is that the democratic revolution of 1974 ushered in a pattern of increasing prison population. In itself, this is not a surprise. Litigation, instability and conflict are more common in democratic societies than in authoritarian ones (Barreto, 2000). But apart for short periods of decline, the tendency of the Portuguese prison population to increase has constituted the prevailing trend until this day. This remains true in spite of the fact that various penal codes have favored the execution of alternative sentences, such as community work, suspended sentencing or the payment of fines. In fact, although one could formulate the hypothesis that a punitive stance is becoming common in Portuguese courts, Caiado (2016) has pointed out that the system which oversees alternative sentencing has also experienced tremendous growth.

3. TWO PORTUGUESE PRISONS: OPORTO AND GUARDA

It must be made clear that this very broad panorama of the Portuguese system disguises very disparate penitentiary contexts. There are establishments which operate with high levels of overcrowding, such as Oporto prison, and others, such as Odemira which operate below capacity. There are also establishments which house a specific kind of inmate population and dispose of an adequate team of education officers which implement specialized programs - such as Carregueira, a novel prison which primarily houses inmates accused of sexual crimes -, and establishments such as Leiria, which was designed to hold only remand inmates and currently, due to considerable overcrowding, houses a very diverse population which is mainly left to itself in small-sized facilities.

The two prisons under analysis also give shape to these contrasts. Oporto prison is one of the biggest facilities in the country, being assigned the role of housing the remand male inmates of the northern region of the country. However, having an overcrowding rate of almost 200% - that is, housing 1183 inmates in facilities designed to hold only 686 individuals²¹ - it operates near breaking point. It has a shortage of guards - most of the time assigning only few guards to supervise units of 200 inmates - as well as education officers - which are normally assigned over 100 inmates to monitor. Some of the units which compose the facility are described by some inmates and guards as "jungles", having a unsupervised environment. Guarda prison is very different. It is a smaller institution which was assigned the role of housing convicted male inmates of the center region. Although it houses some remand inmates, it operates at normal capacity having approximately 180

¹⁹ This was said in a parliamentary hearing from April of 2016.

<http://www.canal.parlamento.pt/?cid=905&title=audicao-do-diretor-geral-de-reinsercao-e-servicos-prisionais>

²⁰ <http://observador.pt/2016/02/01/ministra-da-justica-defende-uso-pulseira-eletronica-reduzir-sobrelotacao-nas-prisoas/>

²¹ Data from Direção Geral dos Serviços Prisionais e da Reinserção Social. <http://www.dgsp.mj.pt/>

inmates (a small percentage of which are female) and almost no overcrowding²². Daily life is largely uneventful and a high percentage of inmates either work or study²³.

4. THE “PROFESSIONAL ETHOS” OF PRISON GUARDS AND EDUCATION OFFICERS

The second article of the code which regulates the execution of prison sentences²⁴ is devoted to the “finality” of those kind of measures. It states:

“The execution of sentences and measures which deprive the liberty of individuals aim to reintegrate the agent in society, preparing him to lead his life in a socially responsible manner, without committing crimes, the protection of legal assets and the defense of society.”

In a way, prison guards and education officer’s different functions represent the two main facets of the Portuguese penitentiary system. On the one hand, we have security, order and surveillance. In the other, we have the imperative of rehabilitation and reintegration. These two set of professionals are, therefore, mandated with bringing the system imperatives to life.

As mentioned earlier, this analysis will be indebted to the perspective of Didier Fassin (2015), which argues that the State is not an abstract or unified entity whose imperatives are automatically and uncreatively carried out by its employees. It is dependent upon the individuals who work for its institutions and which, always to a certain degree, will have discretion to carry out their functions in a manner more or less consistent with their values and judgments. That is why it is so important to understand what kind of “professional ethos” prison guards and education officers deploy in order to navigate the challenges of prison life. It is a first, but inevitable step towards understanding how the penitentiary system and its objectives are accomplished in these particular historical circumstances.

In what follows, I will explore the “professional ethos” of prison guards and education officers from Oporto and Guarda prisons in a particular light; I will be specially focused on understanding how they view the Portuguese penitentiary system’s objectives and their role in accomplishing them. In order to do so, I will use a typology present by Deborah Drake (2012) in which she sketches out the main functions which are normally attributed to a penitentiary system²⁵: security, rehabilitation, deterrence, general prevention and delivery of justice. I will use this typology in order to discuss and clarify the different views of both prison guards and education officers. Finally, please keep in mind that these are preliminary explorations; they are primarily clues for further research. Nevertheless, I hope they are interesting and bold enough to spark a debate.

4.1. Prison guards

Most prison guards express a narrow view of their function. “We are in charge of security and surveillance” is what most will answer when asked what their role is within the penitentiary system. It is, in other words, a legalist approach to the job. Which is why it should be surprising that most of them don’t think prison does what the law sets it out to do. For the prison guards with whom I talked to in Oporto, where their function are carried out under extreme conditions, prison either neutralizes or punishes individuals. They acknowledge the spirit of the law - the successful reintegration of inmates in broader society - but they doubt the institution they serve contributes to that purpose, either because it’s an impossible aim or because there aren’t enough resources to

²² Data from Direção Geral dos Serviços Prisionais e da Reinserção Social. <http://www.dgsp.mj.pt/>

²³ This is true only for the majority of male inmates. The female inmates frequently complain about the lack of occupation.

²⁴ Law no 115/2009, 12th of October. http://www.pgdlisboa.pt/leis/lei_mostra_articulado.php?nid=1147&tabela=leis

²⁵ It must be said that Drake herself does not believe prison as an institution carries out any of these functions. She sees them more as an alibi which the State uses in order to legitimate prison and its real functions, which are, in her view, mainly tied to the control of troublesome populations.

pursue that objective. Education officers - who frequently personify the reintegration objective - are viewed as “pencil pushers”, people who only carry out administrative or bureaucratic tasks.

One of the heads of prison guards in Oporto prison, a woman of approximately 50 years of age which complained about the repetitiveness of her job, gave the following statement in an interview:

A: Prison does not have the desired effect, the reintegration of inmates in society. That does not exist.

Q: So what does prison accomplish? It keeps them locked up?

A: Exclusively. To keep them locked. Recidivism is so high... And its not only here, in Portugal.

Another guard, approximately 40 years old which underlined the dangerousness of the Oporto prison daily life, expressed the following view:

"Q: What do you think prison is for?

A: In the present, prison's only purpose is to scare people. Nothing else. No one leaves here better, apart from the guys who entered addicted to drugs and which are able to free themselves from it. "

In Guarda, prison guards do seem to have another outlook on reintegration. This time around, although they express doubt in regard to its overall effectiveness, they do believe prison carries out, in some way, its designated function. As it was already mentioned, Guarda prison as a relatively peaceful day to day life which is barely affected by any overcrowding. A male prison guard, of over 15 years of service, claimed the following:

“Q: And does reintegration work?

No. For some it never does. Since I work here I've met some inmates - not many - three or four times. Maybe it doesn't work that efficiently. If it did, they wouldn't come back.

Q: And why do you think that there are people that leave and don't come back, and others which frequently return?

A: Most of those people [come back] because of drugs, robberies and stuff like that. Maybe they even steal mostly because of the drugs. I think. But, most of the time, they will also lack support on the outside. From the family, but not only. If they are treated here, if they are guided towards social reintegration... Maybe those who come back lack support outside.”

4.2. Education Officers

Education officers from both prisons expressed similar doubts and concerns about their profession. First, they think of themselves as overburdened by bureaucratic and administrative tasks, like attending to inmate's requests and needs - such as phone calls or visitor and package arrangements - or filling out reports, such as those needed to concede paroles. Second, they have, to different degrees, reduced confidence on the possibility of prison bringing about generalized reintegration or rehabilitation. In Oporto, these officers seem to believe that their work is worthwhile if they can positively impact few inmates. A female officer of approximately 40 years old, who assigns prison's failures to a general unwillingness on the part of the system to accomplish its objectives, made the following statement about a former inmate which she helped escape recidivism: “What do I say? Accomplishment [comes from such cases]. We do not believe we are going to save all these people”. In Guarda prison, a male officer, of few experience and who believes that the purpose of prison is mainly to neutralize offenders and give society a sense of security, shared the same outlook on his function:

“Our mission should be to prevent prisons from being this full, to prevent people from ruining their lives. If it is possible for us to intervene in a full grown person that already has a history of bad choices and be the preponderant factor... It would take a large ego. [But] we can have an important role.”

Although one female officer from Guarda prison advocated that the reintegration process is a success in most cases, she did share the conviction that, in prison, there are those inmates which have a potential to be “recuperated” and those who don’t. He argued that there were some inmates which “will never change”, and that they should be sent to “another place, with less perks”. Other officers, like a professional from Oporto, simply argued that some inmates are not ready to change:

“We should do a correct evaluation in the beginning and check in what faze the individual is at. If he is in a changing phase, if he has it ‘rock bottom’ and really wants to change. We should check in what phase they enter because many are not ready for change today.”

5. CONCLUSION

I would like to conclude this paper by sketching out some exploratory remarks and hypothesis to be tested in future research about the Portuguese penitentiary system. Concerning the views of prison guards, we may want to be sensitive to the way a particular environment can influence these professional’s views about the institutions they serve. The Oporto guards did not believe prison fundamentally served the purpose of reintegration or rehabilitation, instead believing it either simply neutralizes or punishes individuals. The Guarda professionals, working in a less overburdened environment, were more moderate in this respect. Finally, education officers from both prisons expressed great doubt concerning the possibility of prison really accomplishing what it is set out do, expressing also, therefore, doubt concerning their own function. But perhaps most interestingly, these same officers admitted that - not necessarily because of overcrowding or resource scarcity - one should carefully choose what inmates are worthy of investing time and work. This should inspire future research concerning not only the spread of this specific outlook, but also focusing on the criteria which these professionals use in order to choose the inmates they assist. Such research could contribute to the understanding of a possible pattern of selectivity imposed upon the goal of rehabilitation and reintegration.

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Horizontal Effect of Human Rights

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1. INTRODUCTION

Third-party effect of fundamental rights (*Drittwirkung von Grundrechten* in German, *validité erga omnes* in French) is a relatively new phenomenon.²⁶ It developed recently through cases and thanks to growing popularity of direct application of constitutional rights in different jurisdictions²⁷. However, it still raises a great deal of controversies as to its admissibility, justification, and desirability²⁸. These issues will be discussed in this paper.

In principle, the concept of human rights was to protect an individual against a state. Regarding the legal bases of human rights (international treaties like the European Convention on Human Rights²⁹ or national constitutions) they were supposed to limit the execution of power by the state. In many countries it started working very well. Automatically people became more and more aware of their rights and the catalogue of regulated rights increased rapidly: the new rights were mostly firstly established through case law, and eventually regulated later. However, human rights used to have only vertical effect: they applied to legal relations between an individual and a state.

The concept of human rights was an answer to a menace to an individual from a state. Gradually people have become aware that individuals are also threatened by groups of interests, huge international enterprises, political parties, churches, banks etc.³⁰ Although they do not have power resulting from their legal statuses, they do have power resulting from their economic and social positions. It was recognized that power of such entities has to be limited to protect the individuals and to provide individuals with more freedom. Slowly, firstly courts³¹, later legislators adapted the idea of human rights to protect individuals not only against a state, but also against other, more powerful (particularly economically) individuals. This application of the concept of human rights is called their horizontal (or third-party) effect. As this phenomenon is very new, it is still *in statu nascendi*. It means that it was formally and directly accepted in only few jurisdictions worldwide (e.g. horizontal effect of fundamental rights is considered as a principle in some constitutions, for

²⁶ The authors of the European Convention on Human Rights, the most influential international law source of human rights, did not intend the Convention to have such effect. See: A Drzemczewski, *The European Human Rights Convention and Relations between Private Parties*, 1979 *Netherlands International Law Review* 163, p. 168.

²⁷ See more on horizontal effect of constitutional rights: M Florczak-Wątor, *Horyzontalny wymiar praw konstytucyjnych [Horizontal Effect of Constitutional Rights]*, WUJ, Kraków, 2014; A Sajo and R Uitz (eds), *The Constitution in Private Relations: Expanding Constitutionalism*, Eleven International Publications, Utrecht, 2005; M. Florczak-Wątor (ed), *The Influence of Contemporary Constitutions on Relations Between Individuals*, Księgarnia Akademicka, Kraków, 2015.

²⁸ See comparative law studies on horizontal application of human rights in different jurisdictions: D Friedmann, D Barak-Erez (eds.), *Human Rights in Private Law*, Hart Publishing, Oxford, 2001; K S Ziegler (ed), *Human Rights and Private Law. Privacy as Autonomy*, Hart Publishing, Oxford, 2007; D Oliver and J Fedtke (eds), *Human Rights and the Private Sphere. A Comparative Study*, Routledge, London-New York, 2007; V Trstenjak and P Weingerl (eds), *The Influence of Human Rights and Basic Rights in Private Law*, Springer, Heidelberg-New York-Dordrecht-London, 2016.

²⁹ Convention for the Protection of Human Rights and Fundamental Freedoms, Rome 4.11.1950, available here: http://www.echr.coe.int/Documents/Convention_ENG.pdf (further referred as: Convention).

³⁰ M Florczak-Wątor, *Horyzontalny wymiar praw konstytucyjnych [Horizontal Effect of Constitutional Rights]*, WUJ, Kraków, 2014, at 52.

³¹ It started developing after the 2nd World War, see: M Florczak-Wątor, *Rola sądów i trybunałów w kształtowaniu koncepcji horyzontalnego działania praw jednostki [The Importance of Courts and Tribunals in Shaping the Concept of Third-Party Effect of Human Rights]*, (in:) *Sądy i Trybunały wobec problemu horyzontalnego działania praw jednostki [Courts and Tribunals on Horizontal Effect of Human Rights]*, M Florczak-Wątor (ed), WUJ, Kraków, 2015, at 13.

example constitutions of Switzerland,³² Greece³³ and the Republic of South Africa³⁴), while in some other jurisdictions the courts give human rights such an effect³⁵.

The aim of this paper is to illustrate the process of the growing importance of horizontal application of human rights, particularly from the perspective of case law, and to provide arguments supporting such an extensive application.

The paper develops as follows. It begins with example of practical application of human rights towards third-parties: the ECHR case of Pla and Puncernau³⁶. Then the legal mechanism justifying theoretical possibility of such application of human rights is explained. As it is determined that at least theoretically third-party application of human rights is possible, it is high time to speak out the thesis statement of this paper, and, then to support it by providing diverse relevant arguments supporting the thesis on desirability of horizontal effect of human rights.

2. PRACTICE – CASE OF PLA AND PUNCERNAU

It is difficult to mark clearly when human rights became applied horizontally. However, there is no doubts that the issue started being discussed more widely when European Court of Human Rights (ECHR) accepted such application in case Pla and Puncernau v. Andorra³⁷. Then the case seems to be the best example to demonstrate how the concept of third-party effect of human rights already works in practice and to which results its functioning leads.

2.1. The facts

³² According to the art. 35 sec. 3 of the constitution: “The authorities shall ensure that fundamental rights, where appropriate, apply to relationships among private persons.” The constitution was passed on December 18th, 1998 and accepted in a referendum on April 18th, 1999. Its text is available here: <https://www.admin.ch/opc/de/classified-compilation/19995395/index.html>. See more: *M Florczak-Wątor, Oddziaływanie praw podstawowych na stosunki między podmiotami prywatnymi w Szwajcarii [Third-Party Effect of Fundamental Rights in Switzerland], The Influence of Contemporary Constitutions on Relations Between Individuals, M. Florczak-Wątor (ed), Księgarnia Akademicka, Kraków, 2015, at 61-83.*

³³ According to the art. 25 sec 1 of the constitution: “The rights of the human being as an individual and as a member of the society and the principle of the welfare state rule of law are guaranteed by the state. All agents of the state shall be obliged to ensure the unhindered and effective exercise thereof. These rights also apply to the relations between individuals to which they are appropriate (...).” The text of the constitution is available here: <http://www.hellenicparliament.gr/UserFiles/f3c70a23-7696-49db-9148-f24dce6a27c8/001-156%20aggliko.pdf>. See more: *Ch Nikolaidis, Constitutional Rights and Private Relations in Greece, The Influence of Contemporary Constitutions on Relations Between Individuals, M. Florczak-Wątor (ed), Księgarnia Akademicka, Kraków, 2015, at 43-60.*

³⁴ According to the art. 8 sec. 2 Bill of Rights (included in the constitution as art. 7-39) binds not only the state, but also natural and legal persons. Its direct effect is confirmed by art. 9 sec. 4: “No person may unfairly discriminate directly or indirectly against anyone on one or more grounds”. The text of the constitution is available here: <https://www.gov.za/documents/constitution-republic-south-africa-1996>. See more: *J Fedtke, From Indirect to Direct Effect in South Africa: A System in Transition, (in:) D Oliver and J Fedtke (eds), Human Rights and the Private Sphere. A Comparative Study, Routledge, London-New York, 2007, at 351-377.*

³⁵ See for example for Germany: *B Banaszak, Koncepcje horyzontalnego działania (obowiązywania) podstawowych praw jednostki w orzecznictwie sądowym RFN [Concepts Concerning Horizontal Effect of Fundamental Rights in German Courts Case Law], (in:) Sądy i Trybunały wobec problemu horyzontalnego działania praw jednostki [Courts and Tribunals on Horizontal Effect of Human Rights], M Florczak-Wątor (ed), WUJ, Kraków, 2015, at 38-42; for Poland: *J Podkowik, Problem horyzontalnego działania praw jednostki w orzecznictwie sądów w sprawach cywilnych [Horizontal Effect of Human Rights in Polish Supreme Court Case Law], (in:) Sądy i Trybunały wobec problemu horyzontalnego działania praw jednostki [Courts and Tribunals on Horizontal Effect of Human Rights], M Florczak-Wątor (ed), WUJ, Kraków, 2015, at 105-108.* The same effect is given to some human rights, namely freedoms guaranteed by the European Union Treaty, by Court of Justice of EU, see: *B Skwara, Horyzontalne obowiązywanie praw podstawowych w orzecznictwie Europejskiego Trybunału Sprawiedliwości [Horizontal Effect of Fundamental Rights in European Court of Justice Case Law], (in:) Sądy i Trybunały wobec problemu horyzontalnego działania praw jednostki [Courts and Tribunals on Horizontal Effect of Human Rights], M Florczak-Wątor (ed), WUJ, Kraków, 2015, at 59-76.**

³⁶ Case of Pla and Puncernau v. Andorra, no. 69498/01, available at HUDOC.

³⁷ Case of Pla and Puncernau v. Andorra, no. 69498/01, available at HUDOC.

The facts of the case were as follows. Mrs Oller executed a will in 1939. The testatrix indicated in the will that her son, Francesc-Xavier, the beneficiary and life tenant of the estate under her will, was to transfer the estate to a son or grandson of a lawful and canonical marriage.³⁸ Should those conditions not be met, the children or grandchildren of the testatrix's other child would be entitled to her estate. The testatrix died in 1949. Her son inherited the estate. Francesc-Xavier contracted canonical marriage, however the couple did not have their own children – instead they adopted a child (full adoption). He executed a will and a codicil in which, *inter alia*, he left the inherited after Mrs Oller estate to his wife until her death, and then to his son Antoni. However, when Francesc-Xavier died, the will and the codicil were challenged by Mrs Oller's great-grandchildren of her other child. They claimed to inherit her estate, because Antoni was not a son of a lawful and canonical marriage.

2.2. National courts' judgments

The court of first instance dismissed the claim. The court found that in case of full adoption an adopted child takes the place of biological children. The testamentary clause from the will of Mrs Oller must not be understood as preventing adopted or non-biological children from inheriting her estate. The very purpose of this clause was to keep the estate undistributed between different family members.

Upon appeal of the plaintiffs, the appellate court allowed the appeal and set aside the judgment of the court of first instance. The plaintiffs were declared the legitimate heirs of Mrs Oller. It was underlined that at the time of execution of the will and as well at the time of Mrs Oller's death (1939 and 1949 respectively) adoption was not an established institution in the Principality of Andorra. Then testatrix could not be thought to have in mind adopted child when she requested her son to leave the estate to a son of a lawful and canonical marriage. Moreover, at that time, according to law applied to this case, an adoption created only filial status, not family status. It meant that an adoptive child could inherit exclusively after his or her adoptive parents, but not after their family members. The court then analysed the testatrix' intention in the light of the social, family and legal conditions in which she lived.

The defendants lodged an application to the High Court (the Andorran supreme court) that dismissed it, and, subsequently, to the Constitutional Court. They claimed that the judgment of the appellate court breached the constitutional principle of equality: the principle of children's equality before the law regardless of filiation. However, the Constitutional Court declared their appeal inadmissible. According to the court, in this case discrimination against adopted children as compared to biological children derived from the intention of the testatrix regarding who should have inherited under her will' in accordance with the principle of freedom to make testamentary dispositions, which was a concrete manifestation of the general principle of civil liberty.

Finally, the defendants before Andorran courts, as applicants now, brought the case to the European Court of Human Rights (ECHR).

2.3. The European Court of Human Rights judgment

The ECHR emphasized that this case was unique comparing to previously heard by the court, because it did not deal with incompatibility between the national (Andorran) law and the Convention, but with the interpretation of a will in the light of rules from the Convention (whether the interpretation breached the Convention). The ECHR determined that there was nothing in the will to suggest that the testatrix had intended to exclude adopted grandsons. Moreover, it

³⁸ The relevant testamentary clause read as follows: "The future heir to the estate must leave it to a son or grandson of a lawful and canonical marriage ..." ("El qui arribi a ésser hereu haurà forçosament de transmetre l'herència a un fill o net de legítim i canònic matrimoni ...").

highlighted that the appellate court's position seemed over contrived and contrary to the general legal principle that where a statement was unambiguous there was no need to examine the intention of the person who had made it.

ECHR admitted that it was not required to settle disputes of a purely private nature. However, it could not remain passive where a national court's interpretation of a legal act (juridical act, legal instrument), be it a testamentary disposition, a private contract, a public document, a statutory provision or an administrative practice appeared unreasonable, arbitrary or blatantly inconsistent with the prohibition of discrimination established by the principles underlying the Convention, and particularly its article 14³⁹. The appellate court's interpretation of the will in this case deprived the adopted child his inheritance right. ECHR confirmed that very weighty reasons needed to be put forward before a difference in treatment on the ground of birth out of wedlock could be regarded as compatible with the Convention. Moreover, the Court added that even supposing that the testamentary disposition in question did require an interpretation by the domestic courts, that interpretation could not be made exclusively in the light of the social conditions existing when the will was made or at the time of the testatrix's death. Where long period between death of a testator and passing the estate elapsed, during which profound social, economic and legal changes occurred, the courts could not ignore these new realities. It is necessary to interpret the testamentary disposition in the manner that most closely corresponds to domestic law and to the Convention as interpreted in the Court's case-law.

It is interesting to note that ECHR found a violation of art. 14 of the Convention by five votes to two. The two justices, Bratza and Garlicki, submitted very interesting dissenting opinions.

2.4. Dissenting opinions

Justice Bratza emphasized the fact, that, under the Convention, the legislative or judicial organs of the state were precluded from discriminating between individuals (by, for instance, creating distinctions based on biological or adoptive links between children and parents in the enjoyment of inheritance rights), did not mean that private individuals were similarly precluded from discriminating by drawing such distinctions when disposing of their property. It must in principle be open to a testator, in the exercise of his or her right of property, to choose to whom to leave the property and, by the terms of the will, to differentiate between potential heirs, by (inter alia) distinguishing between biological and adoptive children. There does not have to be objective and reasonable justification for the distinction made by a testator. He highlighted that he understood the judgment of ECHR as concerning exclusively this very case: the interpretation of the appellate court of the very last will; he didn't take the Court's findings as suggesting that the upholding by a national court of a will which distinguishes between biological and adopted children is of itself to be seen as incompatible with the Convention principles. He confirmed that when the national courts were concerned with resolving disputes between private individuals or interpreting a private testamentary disposition, such courts being better placed than an international court to evaluate, in the light of local legal traditions, the particular context of the legal dispute and the competing rights and interests involved.

Justice Garlicki correctly pointed out that the real question before the Court was to determine to what extent the Convention enjoyed a horizontal effect. He went on and defined the effect as follows: "an effect prohibiting private parties from taking action which interferes with the rights and liberties of other private parties". He emphasized that it sought to resolving to what extent was the state under an obligation either to prohibit or to refuse to give effect to such private action. He reminded cases where ECHR admitted horizontal effect of human rights, though indirect: as rather

³⁹ The art. 14 of the Convention concerns prohibition of discrimination and reads: The enjoyment of the rights and freedoms set forth in this Convention shall be secured without discrimination on any ground such as sex, race, colour, language, religion, political or other opinion, national or social origin, association with a national minority, property, birth or other status.

an obligation of the state to take some necessary actions.⁴⁰ However, he stressed that the level of protection against state actions must have differed significantly from the level of protection against a private action. Every prohibition of private action unavoidably restricts the rights of other persons. According to him, particularly with regard to succession law, limitation of testamentary freedom is very controversial, because the very nature of a will as a legal instrument is to discriminate heirs: to decide voluntarily by a testator about the estate in case of death.

2.5. Consequences

The case of Pla and Puncernau is very important with regard to the issue dealt with in this paper. It illustrated direct horizontal application of fundamental rights by case law (not only indirect application that was known from previous cases), but also showed, how controversial the issue is. Although strong arguments support the opinion of majority, the equally strong dissenting voices cannot be forgotten. But the case definitely open more broadly the control of private acts by ECHR.⁴¹

As a consequence of this judgement, very serious conflict of legal principles may be seen. On the one hand third-party effect of human rights indeed protects individuals, but on the other hand it also limits personal freedom of others, for example contractual freedom or freedom to dispose of an estate in case of death. It also raises very difficult questions that soon will require answering by courts, for example:

* is it allowed to invite only men to conclude a contract? (what about gender discrimination),

* is it allowed to leave bequest to a family member upon condition that he or she will be a practicing Roman catholic at the moment of a testator' death? (what about religious discrimination),

* is it allowed to offer an apartment for rent only to the white people? (what about race discrimination);

3. LEGAL MECHANISM BEHIND THIRD-PARTY EFFECT OF HUMAN RIGHTS

Although human rights are already applied to horizontal relations between the individuals by some courts as illustrated by the above ECHR case of Pla and Puncernau, and such approach finds some support in literature, one has to begin with explanations if such application is at all theoretically possible. If it was found possible, then the issue of its desirability would become open for exploration.

Legal relations between individuals are created or changed by different legal instruments. In German legal tradition there is a notion: "*Rechtsgeschäft*" that may be translated as "juridical act" ("*act juridique*" in French). It is to describe all these different legal instruments as for example contracts or wills. As these legal instruments shape the relations between the individuals, horizontal

⁴⁰ These examples are important in the context of this paper as they bring further illustration to practical examples of third-party effect of human rights. Then they are worth listing here: "the right to life (State obligation to carry out an effective investigation in a case of a murder committed by private persons – see, for example, *Menson v. the United Kingdom*, (dec.), no. 47916/99, ECHR 2003-V), freedom of expression (*Appleby v. the United Kingdom*, no. 44306/98, ECHR 2003-VI, in which the Court indicated that the State may be obliged to adopt "positive measures of protection, even in the sphere of relations between individuals", § 39), freedom of association (*Young, James and Webster v. the United Kingdom*, judgment of 13 August 1981, Series A no. 44, representing the first ruling of this kind), freedom of assembly (*Plattform "Ärzte für das Leben" v. Austria*, judgment of 21 June 1988, Series A no. 139) and, above all, the protection of private life (see, for example, *Ignaccolo-Zenide v. Romania*, no. 31679/96, ECHR 2000-I, in particular § 113)."

⁴¹ See more: *O Cherednychenko, Towards the Control of Private Acts by the European Court of Human Rights*, 2006 *Maastricht Journal of European and Comparative Law* 195, at 195-218; *R S Kay, The European Convention on Human Rights and the Control of Private Law*, 2006 *European Human Rights Law Review* 466, at 466-480.

application of human rights means that human rights should be applied to control these instruments. In other words, such legal instruments must not infringe human rights.

Although, generally, the fundamental principle of private law is freedom and individuals may freely contour their legal relations, such freedom is not unlimited. The scope of this freedom is different with regard to different legal instruments: it is the broadest as for contracts and the narrowest with regard to property law (e.g. the catalogue of property rights is closed and fully regulated by statutes/codes in civil law countries). But even with regard to contracts, still the parties' freedom is restricted: in none jurisdiction a contract may infringe law. Such contract would be found illegal and, as a consequence, unenforceable. Then for example the contract with a hit man is *ex lege* (automatically) invalid.

Having said that, it seems clear that if human rights were regarded as a part of legal system, any legal instruments infringing them would be automatically illegal. But it is not so easy to prove that human rights belong to national legal system and that, as a result, they should be directly applicable between individuals.

Human rights traditionally were regulated by international treaties, like the European Convention on Human Rights. Then from theoretical perspective they belong to public international law. The issue is that only states and international organisations are regarded as subjects of public international law. As only states and international organisations may negotiate and, finally, conclude an international contract, called treaty or convention, the treaty is addressed exclusively to them. It clearly explains why human rights customarily are applied in vertical relations only: it is the states that are bound by international treaties and are not allowed to breach human rights. However, this traditional approach slowly but consequently changes. More and more often the individuals are recognized as subjects by public international law, although always exceptionally. For example directly the individuals are provided with rights by ECHR and they personally may sue the states which broke their rights protected by the Convention.

Although, extraordinarily, individuals are accepted as subjects of public international law, they still could enforce their rights only against the states. The possibility of third-party effect of human rights results from other phenomenon: regulation of human rights by federal laws and by quasi federal law, namely EU law. As examples the Canadian Charter of Rights and Freedoms⁴² and the Charter of Fundamental Rights of the European Union⁴³ could be pointed out. Most frequently either they are part of constitutions or they are acts regarded as having constitutional status. Such regulations are, as a result, not only part of national legal system, but in fact the highest source of law (it means that other regulations passed by national parliaments, presidents, or governments cannot be contrary to them). Then they apply not only to the states, but also to individuals. Nowadays it is clear that constitutional norms are not decorative, but regular norms applied to any relations between the individuals⁴⁴. It means that legal instruments used by individuals (juridical acts) must not breach legal norms regulated by these sources of law. Consequently, in case of breach, such legal instruments are totally or partially (it depends on the scope of the breach) illegal – then not binding (not enforceable).

It seems clear from the above mentioned analysis that theoretically human rights could be easily applied to legal relations between individuals provided that they are regulated by a constitution. However, not as legal norms regulated by sources of public international law, but rather thanks to

⁴² Its official text is available here: <http://laws-lois.justice.gc.ca/eng/Const/page-15.html>.

⁴³ Its official text is available here: http://www.europarl.europa.eu/charter/pdf/text_en.pdf.

⁴⁴ It is claimed that horizontal application of human rights regulated in other sources of law than constitution should follow the justification and reasoning that led to direct application of constitution, see: *B Skwara, Horyzontalne obowiązywanie praw podstawowych w orzecznictwie Europejskiego Trybunału Sprawiedliwości [Horizontal Effect of Fundamental Rights in European Court of Justice Case Law, (in:) Sądy i Trybunały wobec problemu horyzontalnego działania praw jednostki [Courts and Tribunals on Horizontal Effect of Human Rights], M Florczak-Wator (ed), WUJ, Kraków, 2015, at 60.*

their “constitutionalisation”. As they became part of national constitutions, they turned out to be national sources of law applied to all subjects within relevant jurisdictions, without any difference between horizontal and vertical legal relations. In a result legal instruments used by individuals infringing human rights are illegal.

4. THESIS STATEMENT

In the light of the above mentioned observations, namely already existing courts’ practice of the usage of human rights for horizontal relations and theoretical possibility of such their application, it should be strongly said that third-party effect of human rights is not only possible and practical, but also desirable. Despite the serious controversies and problems, such broad application of human rights should be supported. Although it may seem to limit individuals’ freedom, it is definitely not against the individuals, but for them – as members of the entire society. Modern societies should react not only when a state breaches fundamental rights, but also when it is done by individuals to individuals. As we are witnessing the beginning of such application, it has to be convincingly justified – the arguments supporting the thesis will be spell out in next section of the paper.

5. ARGUMENTS SUPPORTING HORIZONTAL EFFECT OF HUMAN RIGHTS

There are many arguments proving desirability of horizontal application of human rights. The key ones will be pointed out here.

First, the principle of human dignity⁴⁵. This principle should precede the principle of freedom. Though freedom is undoubtedly a very important principle, its enjoyment must not discriminate others. It is a philosophical question to balance legal principles against one another. However, it seems that the most fundamental one should be regarded human dignity that express uniqueness of human beings. And dignity secures equality in the deepest sense – as an ultimate right of everybody not to be discriminated. It should not matter who would like to discriminate a person, be it a state or an individual. The essential for every human being principle of human dignity prevents against discrimination caused by exercising somebody’s else freedom. Creation of world without discrimination is greater value for the societies than unrestricted enjoyment of freedom.

Second, historical approach. One may observe that the evolution of law is about restricting freedom. Without any law rules everybody could do whatever he or she wishes. But it would lead to chaos and disorder. The stronger would force their will against the weaker. Law is to regulate social coexistence, and, as a consequence, to put borders on humans’ activity. But at the same time deciding what is legal and what is not, law creates the sphere of freedom. The scope of this sphere depends on law in force and evolves in time. Although the sphere seems to diminish as we have more and more precise legal rules, the sphere is also better protected against infringement. Law is not only about limiting the freedom, but also to protect the freedom, however only within previously defined limits. Having this perspective in mind, it is easy to understand that nowadays, as the society matured, it is time to limit the freedom more⁴⁶: to totally ban discrimination. And it should be easier accepted that it is not only to limit anybody, but also to protect everybody: in this case to protect others against discrimination by exercising freedom by some.

Third, discrimination once allowed is difficult to be stopped. Even if discrimination in some cases may seem at the beginning rational, it may soon become emotional and irrational. And if one time it is accepted, it makes very difficult if not impossible to limit it later. What criteria could differentiate allowable and unallowable discrimination? And who should have the power to decide which kind of discrimination should be allowed? As it is not possible to answer these questions without

⁴⁵ See more about this principle: L Bosek, *Gwarancje godności ludzkiej i ich wpływ na polskie prawo cywilne [The Principle of Human Dignity and Its Influence on Polish Private Law]*, Wydawnictwo Sejmowe, Warszawa 2012.

⁴⁶ It should be noted that nowadays freedom is more and more limited in many aspects, for example because of environmental protection, building restrictions (e.g. neighbours rights to access to daylight) etc.

controversy, principle of “no discrimination” must be adopted. Then not only a state’s activity must not be discriminatory, but also the individuals’ activity.

Fourth, diminishing importance of states in modern world. Human rights as a mechanism to restrict activity of states in order to protect the individuals worked better in the past when the states were the most important legal subjects. But during last decades it changed significantly. Now the corporations set up by the individuals seem to be the most dominant. Their budgets are much higher than budgets of most states, they have branches in different countries and they decide where they want to produce the goods and where to sell them. These decisions influence lives of millions who can get or cannot get jobs and salaries. As a consequence, these decisions determine which countries’ economy will blossom and which countries will struggle. The corporations hire lobbyists who influence political processes and decisions in many countries, and may even lead to wars or conflicts. Then, it requires to apply the protective concept of human rights not only to the states, but also to the individuals (international corporations included). It is in accordance with the idea behind this concept (*ratio legis*) and its natural evolution.

Fifth, the evolution of the very concept of human rights. The idea began very modestly, but as it became successful, it developed intensively. We started with a short catalogue of mostly political rights and ended with extensive catalogue of economic human rights. Now we even say about different generations of human rights. The tendency of the evolution of the concept of human rights is clear: to expand the catalogue of the rights and the scope of their application. Then third-party effect of human rights seems nothing else than expected and desired next step of the evolution of this concept.

Sixth, legality as the commonly accepted limitation for legal instruments. All jurisdictions recognize that acts done by the individuals (e.g. contracts or wills) must not infringe law. Then if we admit that law on human rights is part of national legal systems, because, for example, it was implemented by constitution or a country entered an international convention on protecting human rights, it should not be surprising that such legal norms must not be break by legal acts of individuals. There is no reason to treat law on human rights differently than law regulating anything else. Then by the mere fact of turning human rights into positive law, part of legal system of a country, human rights acquire third-party effect in a sense that they must be respected in executing a legal instrument (a juridical act) in the sphere of private law: if such an instrument (a juridical act) violates a human right, it should be regarded illegal and, consequently, invalid and unenforceable.

6. CONCLUSIONS

The problem of third-party effect of human rights is so difficult, because conflict of fundamental principles must be resolved.⁴⁷

On one side, private law is built on the principle of freedom that is guaranteed by most modern constitutions. It means that it is up to individuals to shape their legal relations with others. They are free to decide if they want to enter a legal relation, with whom they would like to be in such a relation, and, finally, what rights and obligations should the parties have in such a relations. The individuals are generally also free to execute any legal instrument (juridical act) they wish. The principle of freedom is clearly visible with regard to chief private law legal instruments and applies to *inter alia*: concluding a contract, getting married, or executing a will.

On the other side, human rights are to secure the most fundamental rights of individuals rooted in the principle of freedom, but also in principle of human dignity. They should guarantee that

⁴⁷ It needs to be stressed that conflict of legal principles is nothing unusual. The principles are said to be in constant conflict with one another – they are not like legal rules that may be only obeyed or disobeyed. The principles are always applied together and balanced.

execution of rights by some must not infringe rights of others. From this perspective human rights could be seen as limitation of individuals' freedom.

I think that the above mentioned conflict of principles is not as new as it seems. About 100 hundred years ago it was discussed with regard to the most important private law right: a right to property. In the past for many centuries property right was regarded as absolute, even "holy right". It was said that everybody could do with his or her property whatever he or she wished. However, it was observed that one using his or her property right could violate rights of others. It led to a doctrine of abuse of rights⁴⁸ born in France in the end of 19th century that limits enjoyment of individuals' rights if such enjoyment is aimed at harming others. Then others limitations of property law were introduced.⁴⁹ Nowadays, though property right is still very strongly protected and regarded as fundamental right (human right)⁵⁰, nobody claims it is limitless.

I believe that the principle of freedom of legal instruments (juridical acts) should follow the above mentioned path. Although it deserves strong protection against any forms of violation, it cannot be boundless. A person enjoying his or her freedom must not defy others rights. It seems proportionate and fully axiologically justified to limit somebody's freedom if its enjoyment break rights of others. And horizontal effect of human rights seems the best and most effective instrument to balance the freedoms exercised by individuals.

The paper discusses a relatively new and very important phenomenon: horizontal effect (third-party effect) of human rights. It is not yet so widely debated in literature, but there are increasing number of cases where courts apply human rights horizontally. I believe that there are truly convincing arguments that support such practice. Then it is not only justifiable and rational, but also technically possible that was proved in this paper. Although at first sight it seems that the concept limits individuals' freedom, that is true, it must be added that it also protects individuals' freedom – it prevents its infringement by others exercising their freedom. It guarantees that everybody can enjoy his or her freedom in the domain of private law as long as he or she does not infringe fundamental rights of others, including the right to be treated equally (not to be discriminated on any grounds like sex, race, religion etc.).

The issue dealt with in this paper is definitely progressive and will be becoming more and more important practically, therefore it absolutely seeks for further in-depth and interdisciplinary discussions and analyses. The paper hopes to serve as yet another invitation to such debates.

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⁴⁸ See about the origin of the doctrine of abuse of rights that is nowadays very vividly discussed and quite broadly applied (including the concept of abusing procedural rights and abusing legal personality): A Szpunar, *Nadużycie prawa podmiotowego [Abuse of Rights]*, Księgarnia Gebethner i Wolff, Kraków 1947.

⁴⁹ Frequently they are public law in nature and concern, for example, construction law: it regulates what kind of building an individual may built on his or her property.

⁵⁰ See for example art. 1 of Protocol 1 to European Convention on Human Rights: "Every natural or legal person is entitled to the peaceful enjoyment of his possessions. No one shall be deprived of his possessions except in the public interest and subject to the conditions provided for by law and by the general principles of international law." This article guarantees a right to property as a human right. Similar guarantees one can find in many modern constitutions.

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Scared Off: Comey's Letters to Congress and the Impact of Uncertainty on Voter Choice

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1. INTRODUCTION

Following her unanticipated defeat to republican candidate Donald J. Trump in the 2016 US-presidential election, democratic candidate Hillary Clinton claims that her loss was importantly due to former FBI director James Comey's inference in form of two letters to Congress before the election, which raised renewed suspicion about her unsafe handling of confidential information during her tenure as United States Secretary of State. Albeit the letters' effect on pre-election polls has been studied, there does not yet exist a comprehensive explanation for the interventions' supposed impact on voter behaviour.

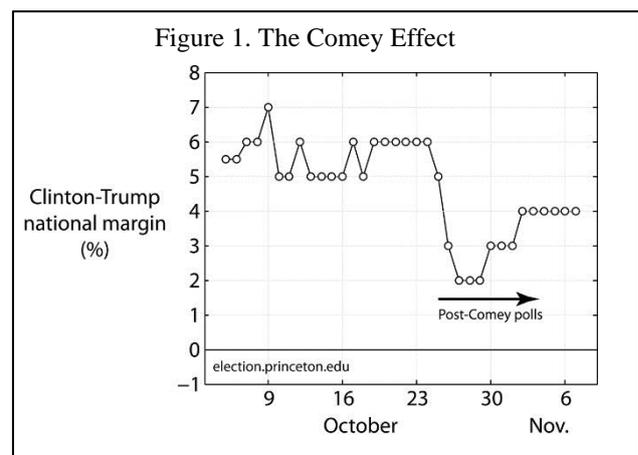
Therefore, the following case application aims at providing a theoretical framework that illustrates how Mr. Comey's letters, by inducing candidate uncertainty, may have impacted voter behaviour and thereby the outcome of the underlying democratic decision-making-process. The paper illustrates that besides the objective alteration of voter behaviour, Comey's first document triggered an anticipatable irrational voter overreaction, and that the second notification resulted in incomplete behavioural reversal while re-activating unfavourable cognitive associations with the Clinton campaign.

2. COMEY LETTERS, COMEY EFFECT(S)

Following a testimony in July 2016 that the FBI had completed its investigation into Clinton's communication of sensitive information from a private email server during her tenure as US Secretary of State, on 28 October 2016, then-FBI-director Comey went against the institution's principle of non-interference into an election and announced in a letter to Congress that "in connection with an unrelated case, the FBI has learned of the existence of emails that appear to be pertinent to the

investigation. [...] Although the FBI cannot yet assess whether or not this material may be significant, [...] I believe it is important to update your Committees about our efforts in light of my previous testimony" (*Politico*, 2016). As of 6 November 2016, two days before the presidential election, Comey issued a second letter stating that "based on our review, we have not changed our conclusions that we expressed in July with respect to Secretary Clinton" (Prokop, 2016).

Resulting from this, Clinton later attributed her close defeat against her opponent Trump to both Russia's "influence campaign" to undermine her candidacy and Comey's decision to notify Congress, "raising doubts" and thereby stopping her "momentum" (Chozick, 2016). In support of this supposedly 'Comey Effect,' a timing-adjusted poll aggregate based on Huffington Post data suggests an immediate vote shift of 4% from Clinton to Trump immediately after the release of the first letter [Figure 1]. In subsequent polls, the total flux remained at about 2% and could have sufficed to swing Florida, Michigan, Pennsylvania, and Wisconsin (Wang, 2016).



Source: Reprinted from the Princeton Election Consortium, by S.S.-H. Wang, 2016. Retrieved from <http://election.princeton.edu/the-comey-effect-original-graph-and-post>.

Clinton concluded: "it wasn't a perfect campaign, there is no such thing, but I was on the way to winning until the combination of

Comey's letter on October 28, and Russian WikiLeaks raised doubts in the minds of people who were inclined to vote for me, but got scared off" (Foran, 2017).

3. ESTABLISHING THE MODEL

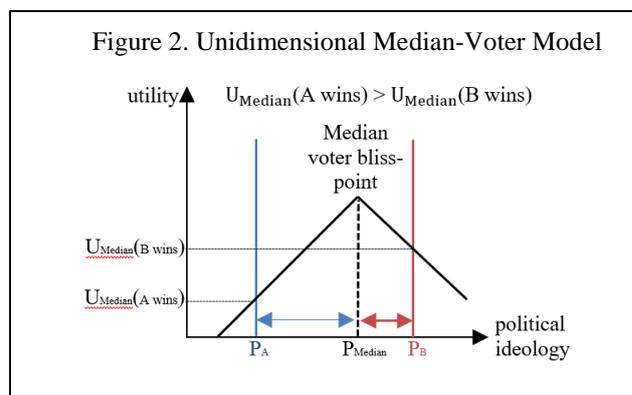
In order to adequately depict the letters' possible impact on the vote distribution and final election outcome, it is fundamental to first establish a model of a democratic mass election over two major candidates and in a state prior to the publication of the initial letter on 28 October 2016.

The underlying case can be illustrated by a simplifying spatial model which assumes a voter population ($N = \{1, 2, \dots, n\}$) that holds complete, transitive and single-peaked preferences over policies relating to a unidimensional spectrum of political ideology ($P = \{p, q, r, \dots\}$) (Shepsle, 2010, p. 18). Voters are presented with alternative outcomes attached to two competing candidates' communicated positions along that same spectrum ($X = \{A \text{ wins}, B \text{ wins}\}$) and ($P_C = \{P_A, P_B\}$; $P_C \in X$), and choose from a set of instruments with which to achieve their most-preferred, feasible outcome ($I = \{\text{vote A}, \text{vote B}\}$). Individual votes are aggregated by an electoral rule ($R = \text{plurality rule}$) with the implication that a vote for either candidate increases their respective likelihoods of victory.

Moreover, candidate positions are completely and identically known to the voter population, who has full certainty that once elected into office, each candidate will not deviate from their campaign-communicated ideology (Hinich and Ordeshook, 1970, p. 431). As a result, the rational individual votes so as to maximize his or her expected utility by minimizing the quadratic loss function of the spatial discrepancy between their most-preferred point and the candidate's stated position, $(P_n - P_C)^2$. That is, each voter chooses the candidate of greatest ideological proximity (Shepsle, 2010, p. 92).

Finally, in application of the Median-Voter-Theorem, the median voter's bliss point,

P_{Median} , has an empty win-set and therefore determines the election outcome (p. 96) [Figure 2].

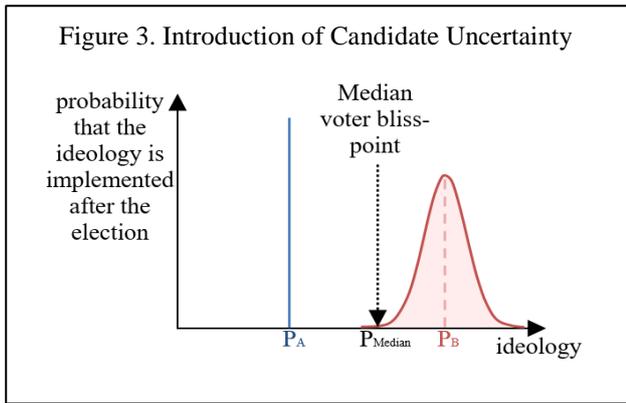


4. FIRST LETTER

4.1 A Rational Reaction to Uncertainty

The first letter's impact can be analysed by introducing uncertainty about candidate Clinton's eventual ideological position if she was elected president, into the voter utility function. If the document contains no information that voters perceive relevant to the election, voter decision-making would remain unaltered. To the contrary, changes in the applicable informational environment translate into changes in voter behaviour (McCubbins and Thies, 1996, pp. 4-5). This is the case because learning, such as through the first letter to Congress, continuously adjusts voter beliefs, the "probability numbers assigned to the potential outcomes of an alternative action" (Shepsle, 2010, pp. 31-33).

Incoming information about the FBI's renewed investigation into Clinton's email server raises doubt in her overall trustworthiness and/or competence, attributes that are projected to her propensity to realize campaign promises if elected president. In the underlying spatial representation, the presence of candidate uncertainty causes the distribution of voter expectations about Clinton's actual ideological position to increase in variance (Munger and Munger, 2015, p. 167) [Figure 3].



Furthermore, the expected utility maximizing behaviour becomes that in favour of the vote that maximizes the sum of the utilities associated with the outcomes that may result from the action, multiplied by the probability of these outcomes occurring (Shepsle, 2010, pp. 16, 33). Accordingly, the median voter intends to minimize the square of the difference between his most-preferred point and the candidates' perceived mean ideological position, plus the squared variance attributed to that candidate's proclaimed ideology which is assumed identical for all n , $(P_{\text{Median}} - P_C)^2 + (\sigma_{\text{Clinton}})^2$. (Munger and Munger, 2015, p. 169; Morgenstern and Zechmeister, 2001, p. 98).

Because the variance of candidate Clinton's anticipated behaviour increases, voters' overall expected utility of supporting her declines, whilst the expected utility from voting for Trump remains unaltered. In cases where a voter prefers Clinton over Trump afore, $(P_n - P_{\text{Clinton}})^2 < (P_n - P_{\text{Trump}})^2$, and the new element of candidate uncertainty outweighs that voter's original preferential disparity between the two candidates, $[(P_n - P_{\text{Trump}})^2 - (P_n - P_{\text{Clinton}})^2] < (\sigma_{\text{Clinton}})^2$, the vote shifts from Clinton to Trump. Consequently, only if Clinton previously enjoyed majority support, that is, if $(P_{\text{Median}} - P_{\text{Clinton}})^2 < (P_{\text{Median}} - P_{\text{Trump}})^2$ and $[(P_{\text{Median}} - P_{\text{Trump}})^2 - (P_{\text{Median}} - P_{\text{Clinton}})^2] < (\sigma_{\text{Clinton}})^2$, then, Comey's first letter would have altered the expected preliminary election outcome.

4.2 Overreaction

Moreover, the first letter may have disproportionately impacted the campaign and in ways that exceed the objective updating of candidate assessments that are subjected to rational ignorance and bounded rationality that were foreseeable by the letter's originator. Most importantly, rational ignorance applies to mass elections where n exceeds (hundred) millions of prospective voters and the objective impact of any one individual's choice is incremental (Shepsle, 2010, p. 298). In these instances, the (expected) cost of collecting, consuming and processing information about the candidates that would help make a better decision is high and often outweighs the (expected) benefit thereof (Jones, 1999, p. 309; Lodge and Taber, 2013, p. 4). In consequence, a voter will consciously ignore part of the assessable information and apply heuristics or cognitive shortcuts to this limited amount of information. To illustrate, Somin (2013) writes that at least 35% of voters are "know-nothings" (pp. 17-37). Likewise, Kahneman and Tversky (1979) find that "people rely on a limited number of heuristic principles which reduce the complex tasks of assessing probabilities and predicting values to simpler judgemental operations [...] but sometimes they lead to severe and systematic errors" (Kahneman, 1974, p. 1124).

In the underlying case, bounded rationality importantly relates to source-overestimation and false causality. Lupia, McCubbins and Popkin (2000) find that both the source-credibility and content-resonance of campaign informative sources play an essential role in (in)forming voter opinion (p. 110). With the information originating from the director of the FBI, to the general public, its subject matter likely appears of especial urgency or severity, specifically when taking the institution's beforementioned tradition of electoral no-interference into account. Furthermore, with restricted knowledge about the investigation and its source-specific association with serious criminal activity, individuals subconsciously construct a narrative that is based on associative coherence

rather than objective and factual information alone (Kahneman, 2011, pp. 75, 87-88). This results in an overestimation of $(\sigma_{\text{Clinton}})^2$.

In like manner and according to Kahneman (2011), “people tend to assess the relative importance [and truthfulness] of issues by the ease with which they are retrieved from memory – and this is largely determined by the extent of coverage in the media” (pp. 8-9). Hence, a combination of both false causality and cognitive strain that mutually re-enforce each other, stipulates an “availability cascade” in which “danger is exceedingly exaggerated as the media compete for attention-grabbing headlines” (p. 143). Lastly, the public estimation of (candidate) uncertainty is subjected to risk-aversion as well as overestimation bias, the tendency of people to overestimate the relative importance of losses compared to gains of equal value, and to overestimate the probability of improbable outcomes and underweight outcomes of higher certainty (p. 32). These factors further increase Clinton’s perceived ideological variance and thereby exaggerate voter reaction.

5. SECOND LETTER

5.1 Incomplete Updating

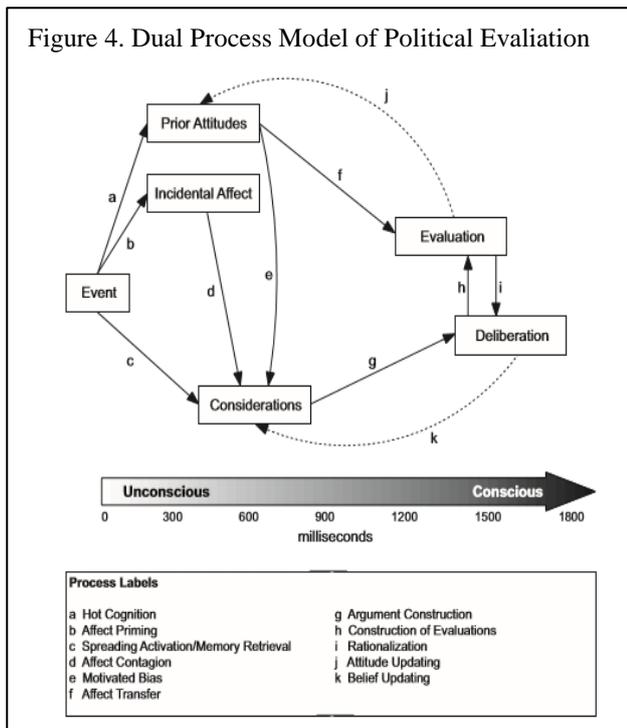
Notwithstanding, since the second letter announces that no additional evidence against Clinton has been found, and thereby negates the informational substance of the first, in a fully rational decision-making process a complete reversal of the initial change in voter behaviour should be expected. To the contrary, Clinton claims that the second letter was not helpful but even more detrimental to her campaign than the first (Chozick, 2016). One possible explanation why the 2% vote swing may have not fully reversed is that people are ‘incomplete Bayesians’ and “find it very difficult to escape the pull of their prior attitudes and beliefs, which guide the processing of new information in predictable and sometimes insidious ways” (Lodge and Taber, 2013, p. 169).

Impacted by confirmation and disconfirmation bias, voters tend to selectively seek and

acknowledge evidence in support of existing narratives and to dismiss disconfirming evidence (Brennan, 2016, p. 43; Jones, 1999, p. 307; Kahneman, 2003, pp. 21-22). Moreover, given that the supplement had been issued nine days following the initial release and only two days prior to the election, leaving disproportionately more time for the formation than for the corrective adjustment of voter opinion, this bias’s impact is especially strong. Also, that news media tend to address consumer risk aversion by focussing their coverage on negative or shocking events further limits the process of updating voter belief systems. This problem is stressed by Brennan (2016) who criticizes that people “might find a mistaken theory more interesting or fascinating than a true one” (Brennan, 2016, p. 36).

5.2 Negative Priming

Despite, exposure to the informational update is characterized by a linguistic focus on the key words such as “Clinton,” “e-mails” and “FBI investigation.” These key words relate to past concepts that were affectively charged in connection with candidate uncertainty and subconsciously stored in long-term memory (Kahneman, 2003, p. 52; Lodge and Taber, 2013, p. 74). Immediately upon repeated exposure, these primes are activated and bring unfavourable associations back into voter short-term memory rather than re-adjusting them [Figure 4].



Source: Reprinted from *The Rationalizing Voter* (p. 19), by M. Lodge and C. Taber, 2013, Cambridge: Cambridge University Press.

6. CONCLUSION

To conclude, this case application develops a theoretical conceptualization of the supposed ‘Comey Effect’ by the introduction of candidate uncertainty into the rational voter model of a democratic decision-making process. Importantly, it neither provides sufficient support of the thesis that Mr. Comey’s interference factually altered the outcome of the 2016 US presidential election, nor does it evaluate the legitimacy or intention of his involvement. However, the paper outlines the theoretical conditions under which his letters to Congress sufficiently impacted voter behaviour to affect the election outcome. As a result, the power and responsibility that modern gatekeepers to information and non-information possess, especially in shaping social choice, become highly evident and underline the need to better understand and protect against such subtle vulnerabilities of the democratic process.

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Democracy is now regarded as a “universal good” but does it have universal understanding and definition?

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Every human community, whether family, association or nation works out the rules which govern its life. Moreover, these rules should be complied with all participants and everyone should support these rules and accede to requirements, otherwise a family life will be full of scandals and may end up with divorce, and in a state one could observe conspiracies, tyrants, revolution. Throughout the centuries-old history of humanity various forms of state rule and various political regimes were used to organize people's life. Some of them failed, some were successful enough, but the ideal one is not found so far. However nowadays democratic way of ruling the state is considered as perhaps not ideal, but very close to it. And many countries all over the world are building the democratic society and implement universal democratic values.

Democracy is now one of the most often-used concept. It is used both in political and scientific discourses. And it is widely assumed that for our society and for political system democracy is an absolute blessing. In the international relations theory was even developed a conception of liberal piece, which is also called theory of democratic piece. The core point of this theory narrows down to the assumption that states with democratic way of ruling don't declare war each other and don't fight with each other. The idea that global democracy would provide a solid foundation for global peace was stated in 1918 by Woodrow Wilson as part of his vision for a new world order and his Fourteen points also elaborated the ideas of liberalism. After collapse of the Soviet Union which also meant the collapse of communist non-democratic block, Francis Fukuyama in the year 1992 added a famous argument that humanity had reached “the end of history.” And there will be no more conflicts and wars. According to the information given in Oxford Bibliographies, “The democratic peace proposition is connected to many other propositions linking domestic politics and international relations, including that democracies are more likely to cooperate with each other, that democracies are more likely to win the wars they fight, that escalating military casualties degrade public support for war, that leaders initiate conflict to secure their domestic hold on power (the diversionary hypothesis), that democracies fight shorter wars, that different kinds of democracies experience different kinds of conflict behavior, that different kinds of authoritarian systems experience different kinds of conflict behavior, and others”.¹

But what is democracy? How do we understand it? It is well known that this word and this idea came to us from the Ancient Greece. And the word democracy consists of two parts: «demos» – people и «kratos» – rule. This could be understood as "rule by the (simple) people". Famous Greek philosopher Aristotle said that democracy arises from the belief that people, equally free, must be equal in all respects. For Aristotle, democracy is not the best form of government. But since tyranny and oligarchy could be considered as even worse forms, democracy has a right to exist. Democracy – it is when the power is concentrated in the hands of the destitute and they neglect the interests of the riches. Another famous ancient Greek person, one of the “founding fathers” of Athens democracy, Pericles, affirmed: "... Our form of does not imitate the laws of neighboring states. On the contrary, we are rather a model to others. Our form of government is called a democracy because its administration is in the hands, not of a few, but of the whole people. In the settling of private disputes, everyone is equal before the law”.² Here, in the statement that “everyone is equal before the law” we can notice the dawning of the main thesis of the modern democracy.

¹ Reiter D. Democratic Peace Theory // <http://www.oxfordbibliographies.com/view/document/obo-9780199756223/obo-9780199756223-0014.xml> (Accessed 25.09.2016)

² The Golden Age of Athenian Democracy under Pericles // <http://www.rjgeib.com/thoughts/athens/athens.html> (Accessed 16.09.2016)

Nevertheless many changes have taken place since that times, and to the XXI century many new concepts of democracy and understanding of what is democracy have been appeared, starting from the ideas of English Civil War to modern vision the model of the US as a pattern of democracy. And nowadays many modern authors make various researches concerning problem of democracy. Some of them concentrate on theoretical approaches to democracy. Such authors as L. Ali Khan³, David Held⁴ rethink and develop western concepts of democracy, others for instance, Pierre Rosanvallon⁵ Jacques Ranciere⁶ theorize about the possibilities and problems of democracy in terms of current evolvement.

As the predicted by Fukuyama “End of history” did not happen and the international society still face a number of military conflicts many scientists address oneself to the topic of the importance and role of democracy as a peacekeeping element. Among them one could name Bruce Russett,⁷ Michael W. Doyle,⁸ Spencer R. Weart.⁹

Others take into consideration cultural differences and analyze the development of democracy regarding fundamental regional contrasts. One could name such authors as Larry Diamond, Marc F. Plattner, Yun-Han Chu, who debate the desirability of democracy in East Asia¹⁰. Dirk Kotze, Francis Nwonwu, who examine the prospects of continued democratic stability through the experience of 5 African countries.¹¹ The problem of democracy formation in Russia and related issue of capability of coexistence democracy and corruption are widely studied by Russian authors such as Kochetkov V.P and others.¹²

So in this essay I would like to contemplate the existing approaches to the democracy, to understand if there is a universal knowing of this concept or not. Speaking about democracy it is useful to point out what it is definitely stays away from it. Democracy could be “defined opposite so other types of government:

- Monarchy (government by a single ruler (king/queen, emperor);
- Aristocracy (government by noblemen (hereditary);
- Oligarchy (government by few persons);
- Theocracy ("Government by God" (in reality this means government by religious leaders);

Dictatorship (government by people, that have seized power by force (often: military dictatorship)”¹³.

One of the platforms for discussions about democracy in both theoretical and practical spheres is a Journal of Democracy, which was established in 1990. It covers all various aspects of this notion. As the Journal yourself sees its mission, it is included in “explore in depth every aspect of the establishment, consolidation, and maintenance of democracy, including political institutions, parties and elections, civil society, ethnic conflict, economic reform, public opinion, the role of the media,

³ Khan Ali L. A Theory of Universal Democracy: Beyond the End of History // Martinus Nijhoff Publishers, 2003

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⁶ Ranciere J. Hatred democracy // Verso, 2006.

⁷ Russett B. Grasping the Democratic Peace: Principles for a Post-Cold War World // Princeton University Press, 1993.

Russett, B. and John R. Oneal. Triangulating Peace: Democracy, Interdependence, and International Organizations // New York: Norton, 2001.

⁸ Doyle M.W. Liberal Peace: Selected Essays // New York: Routledge, 2011.

⁹ Weart S. R. Never at War: Why Democracies Will Never Fight One Another // Yale University Press, 1998.

¹⁰ Diamond L., Plattner Marc F., Chu Yun-Han. Democracy in East Asia: A New Century // The Johns Hopkins University Press, 1998.

¹¹ Kotze D., Nwonwu F. African Political Elites. The search for democracy and good governance // Africa Institute of South Africa, 2008.

¹² Kochetkov V.P. Philosophy Of The Russian Constitution: Russian Values And Democracy // Sententia. European journal of humanities and social sciences, №2, 2013

¹³ A Short Definition of Democracy // Democracy building // <http://www.democracy-building.info/definition-democracy.html> (Accessed 16.09.2016)

and constitutionalism. It covers not only practical political matters but also questions of democratic theory and culture. While it maintains the highest scholarly standards, it is written and edited for the general reader".¹⁴

Referring to this journal we can find modern definitions of democracy which are offered by different authors. For example, Amartya Kumar Sen writes that "we must not identify democracy with majority rule. Democracy has complex demands, which certainly include voting and respect for election results, but it also requires the protection of liberties and freedoms, respect for legal entitlements, and the guaranteeing of free discussion and uncensored distribution of news and fair comment. Even elections can be deeply defective if they occur without the different sides getting an adequate opportunity to present their respective cases, or without the electorate enjoying the freedom to obtain news and to consider the views of the competing protagonists".¹⁵ This author assumes that democracy comprises many aspects and each of them is critically important. Another researcher, French professor Pourhiet claims that "it is difficult to imagine that in the legal definition of democracy can be included other elements in addition to the traditional criterion of the collective sovereignty expressed in the decisions made by the majority of citizens through the implementation of the right to vote by a referendum or through elections of representatives".¹⁶ From her point of view it is possible to emphasize one core item which expresses quite clear the idea of democracy. And she does not give an eye to the civil liberties and human rights.

Juan J. Linz and Alfred Stepan in their book "Problems of Democratic Transition and Consolidation: Southern Europe, South America, and Post-Communist Europe" focus on the transition of totalitarian regimes towards democracy. "A democratic transition is complete when sufficient agreement has been reached about political procedures to produce an elected government, when a government comes to power that is the direct result of a free and popular vote, when this government de facto has the authority to generate new policies, and when the executive, legislative and judicial power generated by the new democracy does not have to share power with other bodies de jure".¹⁷ A completed transaction means "pure" democracy. As one could notice these authors also concentrate more on way of organizing the government, not on the way of organizing the whole society.

As we got sight of, there are different opinions in academic environment of what must be included in the definition of democracy. And now we'll turn our attention to political environment and examine what do politicians comprehend in this notion.

Israel Prime-Minister Benjamin Netanyahu in one of his speeches mentioned that: "Israel is a Western liberal democracy and as such its public space is open and safe for all, men and women...there is no place in [Israel] for discrimination"¹⁸ Here we can notice a reference to human rights and equality – characteristics of the democratic society.

Former Mayor of London and now minister of Foreign Affairs in Great Britain Boris Johnson said that: "democratic self-government – parliamentary democracy – is what the modern British nation is founded on. The most precious thing this country has given the world is the idea of parliamentary democracy. Yesterday, I believe the British people have spoken up for democracy in Britain and

¹⁴ About the Journal of Democracy // Journal of democracy official website// <http://www.journalofdemocracy.org/about> (Accessed 16.09.2016)

¹⁵ Amartya Kumar Sen. Democracy as a Universal Value // Journal of Democracy, July 1999 // <http://www.journalofdemocracy.org/articles/tables-contents/July-1999>

¹⁶ Pourhiet A.-M. Le. Définir la démocratie // Rev. française de droit constitutionnel. – P., 2011. – N 87.

¹⁷ Linz J. J. and Stepan A. Problems of Democratic Transition and Consolidation: Southern Europe, South America, and Post-Communist Europe // JHU Press, 1996. – P.3

¹⁸ Netanyahu: Israel Is a Democracy and Won't Tolerate Discrimination //Haaretz, 25.12.2011 // <http://www.haaretz.com/israel-news/netanyahu-israel-is-a-democracy-and-won-t-tolerate-discrimination-1.403473> (Accessed 16.09.2016)

across Europe”.¹⁹ His vision is that democracy is an absolute blessing inasmuch as this speech was dedicated to the Brexit, for him one of the key points of democracy is people’s right to express their will.

The president of Russian Federation Vladimir Putin, answering during the interview to the question about democracy in Russia, said: “Democracy means the power of the people and the opportunity to influence the government. Russia has enough experience with a one-party system, we are not going back. We will continue to develop and improve our democracy”²⁰. And he also mentioned, that there are no two identical democracies, it differs in each country and “there is no universal model of democracy”. In this approach to defining democracy one can notice the ancient idea of “power of people” and if we pay attention to the rhetoric, it is interesting that he used the word “opportunity”, not “ability” speaking about people’s influence the government. Maybe that is one of the reasons, that for instance in Britain people really influence on politics while in Russia they just have “opportunity” and the establishment of democracy is still in process.

And I would like to end up with the opinion of Abraham Lincoln, who of course does not belong to the modern world and in his times democracy in its current vision was just forming but that’s why his words are more significant nowadays and help better understand such difficult concept as democracy. He stated, that “elections belong to the people. It’s their decision. If they decide to turn their back on the fire and burn their behinds, then they will just have to sit on their blisters”²¹. Again, this quotation stresses the most important part of democracy: rule of people. In this part all the above mentioned persons agreed.

Despite the existence of different approaches to the definition of democracy we can still emphasize the basic principles of democracy, which are shared both by scientists and politicians:

- people is acknowledged as a source of power; sovereignty of the people is expressed in the fact that people elects its representatives, and can occasionally replace them, has the right to participate in the development and adoption of laws using people's initiatives and referendums;
- authorities are elected (persons exercising supreme authority are elected for a specific, limited period of time); it enables the public to monitor the government;
- competitive multi-party system; democratic regime creates the appropriate legal conditions for the functioning of political parties;
- legal political opposition, which is able to firmly criticize the government without fear of being disbanded and suppressed;
- real freedom of speech, the ability to express their views on any issue as a protection of the society from the stagnation and decay
- the equal rights for citizens to participate in ruling the country (at least equality in the right to vote);
- the minority shall abide by the majority's decision, granting safeguards for the rights of the minority
- the principle of separation of powers into legislative, executive and judicial branches;
- priority of human rights over the rights of states;
- tendency to the creation of civil society and the rule of law, and the government itself contributes to the development of forms of public selector, realization of the rights and freedoms of members of the public, compliance with laws.

In today’s world system the United Nations Organisation (UN) plays an important role as an instrument of justice, peace and international cooperation, and is also based on “principle of the

¹⁹ Moore C. The European elite forgot that democracy is the one thing Britain holds most dear // The Telegraph, 24.06.2016 // <http://www.telegraph.co.uk/news/2016/06/24/the-european-elite-forgot-that-democracy-is-the-one-thing-britain/> (Accessed 16.09.2016)

²⁰ 2.Teil Des Grossen Bild-Interviews Mit Putin „Wir wollen keine Supermacht sein“//Bild, 12.01.2016 // <http://www.bild.de/politik/ausland/wladimir-putin/interview-mit-dem-russischen-praesidenten-44096422.bild.html> (Accessed 16.09.2016)

²¹ Cit.ex.Quotes on Elections. Forbes, 29.04.2014 // <http://forbesindia.com/article/thoughts/quotes-on-elections/37494/1> (Accessed 16.09.2016)

sovereign equality of all its Members”²², which is one of the main pillars of democracy. The opening words of the Charter are the following: “We the Peoples”. They reflect the fundamental principle of democracy, “that the will of the people is the source of legitimacy of sovereign states and therefore of the United Nations as a whole”.²³ One can say that the UN is an attempt to create a global democratic ruling. How the unfair way of forming the Security Council with 5 permanent members correlates with the above mentioned principle of equality of all the members of the UN - that’s a different matter. For us it is more interesting to have a look at how the idea and definition of democracy is presented in terms of this organization.

According to the information available on the official website, “democracy, and democratic governance in particular, means that people’s human rights and fundamental freedoms are respected, promoted and fulfilled, allowing them to live with dignity”.²⁴ The principle of democratic governance embodied in the documents and statements of the UN is further replicated in national legislation. Indeed, Art. 1 of French Constitution of 1958 indicates that France is a “democratic and social republic”. According to the German Basic Law 1949, Article 20, the country is “democratic and social federal state”. Art. 1 of the Spanish Constitution 1978 claims that Spain is a “social and democratic state”. The same about Italian Constitution 1947: Art. 1 says that Italy is a “democratic republic founded on labour”.²⁵ And in each country the sovereignty belongs to the people. That’s what is proclaimed in basic laws, in black and white. But how it works in real life?

Nowadays some research centers work up graphics, lists and rankings about the level of democracy, its quality among countries. Countries are divided in several groups depending of how high or low their level of developing democracy is. For example, according to the Global Democracy Ranking there are 5 stages of the quality of democracy in the world from very low to very high, and the number of those states which have 100-60 scores (high level) is 51.²⁶ Taking into account that overall in this research were presented 113 countries, it is a good rate.

And they used the following formula to rank the democracies: Quality of Democracy = (freedom & other characteristics of the political system) & (performance of the non-political dimensions). The latter includes: (1) gender (socio-economic and educational gender equality); (2) economy (economic system); (3) knowledge (knowledge-based information society, research and education); (4) health (health status and health system); (5) environment (environmental sustainability).²⁷ It is important to notice that political dimension is more significant during preparation process as it weights 50% of all indicators.

Another group of researchers, from the Economist Intelligence Unit, which also made such type of rating based their analysis “on five categories: electoral process and pluralism; civil liberties; the functioning of government; political participation; and political culture. Countries are placed within one of four types of regimes: full democracies; flawed democracies; hybrid regimes; and authoritarian regimes”.²⁸ They also calculated scores and estimated that 79 countries of 167 can be called democracies, and where only 26 are “full democracies”. Comparing to the afocited rating this one takes into consideration only political aspects. The first one (Global Democracy Rating) even claiming to pay more attention to political dimensions, is more specified on civil rights and

²² UN Charter, article 2, 1945 // <http://www.un.org/en/sections/un-charter/chapter-i/index.html> (Accessed 17.09.2016)

²³ Democracy and the United Nations //Global Issues // http://www.un.org/en/globalissues/democracy/democracy_and_un.shtml (Accessed 17.09.2016)

²⁴ Democracy and the United Nations //Global Issues // http://www.un.org/en/globalissues/democracy/democracy_and_un.shtml (Accessed 17.09.2016)

²⁵ All constitutions available online in English at .legislationline.org // <http://www.legislationline.org/documents/section/constitutions>

²⁶ Democracy Rating 2015.Scores // http://democracyranking.org/ranking/2015/data/Scores_of_the_Democracy_Ranking_2015_A4.pdf (Accessed 16.09.2016)

²⁷ Global Democracy Ranking // <http://democracyranking.org/wordpress/theoretical-basis/> (Accessed 16.09.2016)

²⁸ The Economist Intelligence Unit’s Index of Democracy 2010// http://graphics.eiu.com/PDF/Democracy_Index_2010_web.pdf (Accessed 26.09.2016)

freedoms. The Economist Intelligence Unit's Index also stresses the significance of civil liberties. But also states that "they [free and fair elections and civil liberties] are unlikely to be sufficient for a full and consolidated democracy if unaccompanied by transparent and at least minimally efficient government, sufficient political participation and a supportive democratic political culture. It is not easy to build a sturdy democracy. Even in long-established ones, if not nurtured and protected, democracy can corrode".²⁹ So as we could have noticed before, speaking about democracy first of all we think about political way of governing, keeping in mind universal human rights and freedoms. And if the democracy was once established it does not mean that the political system is not going to change. Here is hidden one of the main problems in defining democracy – it is changeable phenomenon. And if for example we define this notion in one way and after that it will change - would it mean that it is still a democracy, or we should think about another word to describe it. And where are the strict borders to differ "full democracy" from "low democracy" – they both are democracies, but definitely the political system and human rights in Moldova are far cry from the same in Norway. All these aspects bring more mess in an arduous process of adopting universal definition of democracy.

Summing it up I would like to cite a famous politician, former British prime-minister Winston Churchill who once said "There is no such thing as the "perfect form of government" on earth, but any other form of government produces even less desirable results than democracy. Until today, no other form of government has been invented that could regulate public affairs better than democracy".³⁰ And even if we do not have a universal definition of what is democracy we still have a universal understanding that democratic principles and pillars, such as: sovereignty of the people, government based upon consent of the governed, majority rule, minority rights, guarantee of basic human rights, free and fair elections, equality before the law, due process of law, constitutional limits on government, social, economic, and political pluralism, values of tolerance, pragmatism, cooperation, and compromise, - are essential parts of the right way of organizing people's life and impartial way of ruling a state.

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²⁹ The Economist Intelligence Unit's Index of Democracy 2010// http://graphics.eiu.com/PDF/Democracy_Index_2010_web.pdf (Accessed 26.09.2016)

³⁰ Cit.ex. Churchill on democracy // <http://www.democracy-building.info/definition-democracy.html> (Accessed 19.09.2016)

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*Humanities,
Environment,
Social Affairs*

The Effect of Fund Investor Network on CSR Performance: With the Background of Green Governance

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ABSTRACT

Fund investors play an important role in corporate governance; they can monitor managers' behavior and offer reasonable proposals about social responsible decisions. From the perspective of social network theory, using the data of A listed companies in China from 2009-2015, this article empirically test the influence of fund network's and peer pressure to CSR behaviors. The results indicate that fund investors have a higher network centrality will perform better in the governance of CSR. This paper argues the positive effect of fund network, enhances mechanism studies about institutional investor, and offers meaningful reference for policymakers in China

1. INTRODUCTION

China, as the second economy entity of the world, is growing up with fast pace of the development. At the same time, corporate social responsibility has been attracting attention from the public. Since Supernormal Institutional Investors Strategy was introduced in China, various kinds of institutional investors have faced more than ten-year development, who have accounted for about 40% in the A-share market, even 65% in some important industry sectors. However, under the background of the A-share institutional era, whether institutional investors as theory as the expected to play a positive role in corporate governance, is still attracting high attention of the academia and practice.

As one of the important participant of the capital market, institutional investors on the use of the capital concept are becoming mature. The whole society expects that institutional investors could have a much more positive impact on the corporate governance practice, whose return on the society should not only include economic investment revenue, but also include social contribution. According to the above mentioned, social responsible investment (SRI), as an investment mode based on the environment, society and economic principles, provide a good choice. SRI pays attention to the economic benefits, at the same time, SRI also gives attention on the social and environmental factors, which not only promotes capital market to focus on the social responsibility, but also promotes the company to fulfill the social responsibility actively. The specific way of investment includes social screening, shareholder advocacy and community investing.

Around the present studies, the results show that institutional investors have played an important role in improving corporate social responsibility, such as restraining and correcting managers' behavior, improving labor relations(Warning and Lewer, 2004); supporting for the production of organic food(Weber, 2005); actively encouraging the creation and innovation of green environmental protection technology, preventing regional environment pollution, and achieving corporate sustainable development(Chen et al., 2006). Based on the sample of Chinese firms, the results show that with the high level of corporate social responsibility, those listed companies could attract an increased number of investment from institutional investors(Mao et al., 2012). However, these researches does not concentrate on the change about the institutional investors' perception which probably becomes an important factor affecting CSR. This is the focused research problem of our article.

2. THEORY ANALYSIS AND HYPOTHESIS DEVELOPMENT

2.1. Governance Mechanism of Fund Investor

Institutional investors, especially the governance effect of the funds investors has always been the in the research area. Three governance hypotheses of effective supervision, conflict of interest and strategic collusion by Pound (1988) have been proved by many scholars. The hypothesis of effective hypothesis got the general recognition of the mainstream view, which is with the growing of the main body of the market, investors who uphold the “institutional shareholder activism” from market played a positive role in promoting the governance and corporate value. On the one hand, this is mainly due to the asset size and ownership of institutional investors are rising up year by year, high liquidity restrictions and stock price fluctuation from selling off, which all drives institutional investors to positive governance investment strategy, trying to influence corporate strategy and business decisions through a variety of ways to increase the corporate value. On the other hand, institutional investors also have more experience, information superiority and the specialized ability, able to put forward effective suggestions for the invested company as an independent governance participant which could make up the lack of internal supervision mechanism and check and balance for block holders. In the deeper level, the transition for vote from “vote by feet” to “vote by hands” also reflect the change on the governance thinking, which shows the period of “speculative transaction-value discovery-value creation”.

Carroll(1979) proposed that CSR includes“expectations for economic, legal, ethical and altruistic behaviour within a given period of time”, such as economic responsibility, legal responsibility, ethical responsibility and charity responsibility. The goal of traditional corporate governance is to "pursue the maximization of the interests of the corporate shareholders", which is a one-sided corporate governance mode. However, with the development of the economy, CSR has gradually become one part of social culture, and both investors and management have gradually shifted to focus on the CSR mode of multi-stakeholder governance. He & Zhu(2012) found that institutional investors pay great attention on the environmental performance of the heavy pollution enterprises and the lack of the corporate social responsibility, especially the lack of the influence on the investment value from the responsibility of corporate to stakeholders, such as consumers, suppliers etc.

2.2 Fund Investor and CSR

By conduct CSR behaviors, enterprises could satisfy internal and external stakeholders create a good market environment for the development of enterprises. This kind of responsibility implementation is closely related to the enterprise management and decision. As an important part of external supervisions, fund investors represent the interests of various social trust subjects. Therefore fund investors in the decision-making will pay more attention to corporate social responsibility information such as customers, suppliers and environment duties. From other side, It's difficult to transformation invest goal in short-term without stock price declining because fund investor has more concentrated invest than before. They had to take CSR into consideration and impel managers take more responsibility to make sure firm long-term value (Graves, 1994).Multi-dimensional CSR performance reflects the different interests of various stakeholders, and enterprises with good CSR have greater competitive advantages (Muller & Kolk, 2010).Fund investors also have more ability and motivation to get information about the company's social performance, and thus making effective investment strategy (Petersen and Vredenburg, 2009).

For the enterprises, fulfilling its social obligations provides a harmonious social environment for business development and gain a positive public recognition. Then the stable development of enterprises could provide more invest return for shareholders including fund investors. Therefore, fund investors will take the positive corporate governance activities to prompt CSR behaviors.

Based on Coffee(1991), fund and insurance investors tend to hold shares for a long time, so they have a higher incentive to supervise firms' social responsibility, and index funds pursue only short economic gains. We find the similar situation in China, mutual funds, social security fund and QFII are considered as positive CSR investors. Thus we propose hypothesis 1:

H1: Fund investors have more invest in firms which have better CSR performance.

Rowley (1997) has used social networks to predict multiple stakeholders' impact on the CSR. Etter(2013) and Antoni(2013) introduce social network perspective into CSR research. As they find, CSR can not only make the stakeholders have a good attitude and behavior, but also strengthen their relationship between stakeholders and the company.

First, Heinkel et al.(2001) proposes a green investor model, when green investors adhere CSR preference in the investment, the market will reach a kind of game equilibrium. Firms have low CSR will be pressure to improve their social responsibility in order to improve reputation reduce the cost of financing. Second, Signaling effect is an alternative reason that firms conduct CSR behaviors (Kim et al, 2012). Socially responsible firms are less likely to manage earnings and to become the subject of SEC investigations. Thus, some companies may mimic socially responsible firms in an attempt to signaling that they are transparent and reliable. Third, the peer effect in social network will improve firms' CSR, too. Because companies embedded in social networks are more likely have similarity on information acquisition, trust degree, action goals, and moral judgment. Thus we propose hypothesis 1 and hypothesis 2:

H2: The environmental pressures in social networks promote the company CSR.

H3: The centrality degree in social networks promotes the company CSR.

3. DATA AND METHODOLOGY

3.1 Data and Sample

The sample analyzed in this paper was composed of China A-Listed companies which financial report collected from CSMAR database and the mutual fund stock holding data is collected from WIND database in the period 2009-2015. (1) We removed index fund and QDII because they belong to sensitive investors and don't focus on CSR. (2) We exclude samples with ST or ST* and all financial industry. Then we winsorized the data at 1% level. (3) We use social network analysis software Pajek to calculate centrality degree.

3.2 Fund Network

Based on previous research (Pareek, 2010; Liu et al, 2016), we define a link between two fund investors when they have shares (>5%) in a same company at the same time ($w_{i,j,t} = 1$). Then we can calculate centrality degree for each fund investors in our sample period. This represents funds' ability to acquire potential information resources and social capital in network.

$$W_{f,t} = \begin{pmatrix} 0 & w_{ij,t} & w_{ij,t} \\ w_{ij,t} & 0 & w_{ij,t} \\ w_{ij,t} & w_{ij,t} & 0 \end{pmatrix}$$

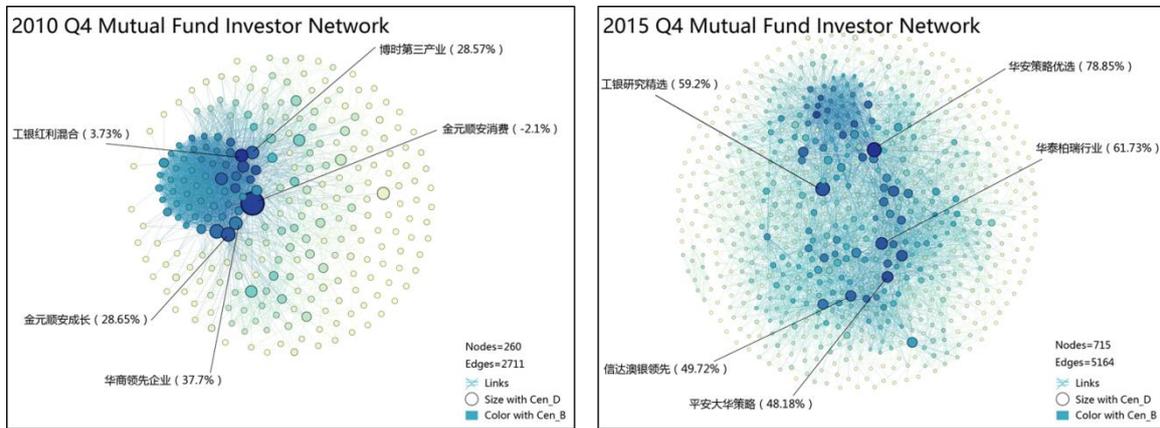


Figure1. Mutual Fund Investor Network

Figure1 shows the fund investor network in 2010 and 2015. We can observe a significant growth of China funds in recent years. The nodes and links increase as network structure become more complex. Furthermore, we find that center funds in this network also achieved better investment income. These changes reflect that fund investor with high center degree can obtain more information, and gain an advantage in trade and governance behaviors.

3.3 Variables and Models

We used the most commonly used measure of CSR in China, RKS-Rating for our analysis. RKS provides the CSR scores of China listed company from three aspects including macrocosm, content and technique. The RKS evaluation system adheres to ISO26000 and more details are available at website (www.rksrating.com). Another index we used is CSR report which collected from CSAMR database.

The independent variables we focus are PPressure and CenX. PPressure is the mean number of RKS score of companies which have direct link (at least have one same fund investor) with one specific company. CenX is mean number of fund investors' centrality degree who invests in the specific company. Another control variables include financial leverage (LEV), firm size (SIZE), operation cash flow (OCF), and institutional investors' shareholding ratio (INST). We also controlled factors in corporation governance such as board independence (IND), ownership type (SOE), CEO duality (DUAL), board size (BOARD). Last, we control industry and year effects by construct dummies. We perform the following regression to test our hypotheses:

$$CSR_t = \alpha_0 + \alpha_1 PPressure_{t-1} + \alpha_2 CenX_{t-1} + \alpha_3 Controls_{t-1} + \varepsilon$$

4. EMPIRICAL RESULTS

4.1 Descriptive Statistics

Table1 reports the mean, the standard deviation, and the min and max of variables. The Std. of China companies CSR is greater than the mean, which means there are still imperfections in CSR of China companies. We also observe that the mean CSR pressure from peer firm in network is 3.475 and 0.629. Three type centrality degrees show a good distribution pattern. The percentage of independent directors is 37.3%, the institutional investor share is, on average, 8.4% and the ownership concentration represents 36.8%. The correlation matrix has been calculated to analyze for multicollinearity. The findings, not reported for the sake of brevity, show that all the correlation coefficients are low.

Table1. Summary Statistics

Variable	Obs	Mean	Std.	Min	Max
CSR_RKS	6348	0.472	1.231	0	4.477
CSR_CSMAR	6348	0.094	0.239	0	1
P_RKS	1862	3.475	0.613	0.476	4.480
P_CSMAR	1862	0.629	0.125	0.063	0.909
CEN_B	3174	0.002	0.007	0	0.138
CEN_C	3174	0.233	0.071	0	0.434
CEN_D	3174	0.018	0.019	<0.001	0.249
LEV	5540	0.447	0.223	0.041	1.016
SIZE	5540	22.408	1.442	19.064	25.774
INST	5113	0.084	0.098	0.001	0.558
OCF	5506	0.058	0.086	-0.231	0.279
GROWTH	5168	0.247	0.555	-0.592	4.073
AGE	5506	2.173	0.727	0.693	3.258
SOE	5539	0.548	0.498	0	1
TOP1	5538	0.368	0.164	0.021	0.894
DUAL	5501	0.241	0.428	0	1
BOARD	5530	2.181	0.208	1.386	2.891
IND	5530	0.373	0.058	0.091	0.8

4.2 PSM Test Results

Based on Shi & Wang (2011), we determine the matching variables affecting fund investors' investment decisions by use iterative regression. The logistic model regress results (Pseudo R² = 0.235) showing in table2 left side indicate our model is robust. Table2 right side is the results of balance test, the standard bias between treated group and control group is less than 10% for each variables. These results satisfy the balance hypothesis; it can be considered that the matching effect is acceptable (Smith & Todd, 2005). ATT (Average Treatment effect on the Treated) test is the final step of PSM process and the results showing in the right below in table2. We find there is significant difference is CSR between treated group and control group and treated group has a higher CSR (e.g. Diff = 0.912, t = 31.78). This means our fund investors are indeed more likely to invest company take more social responsibility.

Table2. PSM Test Results

	Logistic Regression		Balance Test				
	Coefficient	t	Treated	Control	S.B(%)	t	p> t
ROA	6.155***	7.43	0.695	0.065	7.3	2.57	0.01
LEV	-1.521***	-10.77	0.435	0.439	-2.1	-0.76	0.445
EPS	0.729***	9.53	0.594	0.549	9.6	3.21	0.001
TOP1	-2.111***	-13.32	0.363	0.363	-0.4	-0.13	0.893
TOBINQ	0.403***	32.08	3.375	3.401	-1.2	-0.35	0.728
ASSETS	-0.262***	-4.92	0.283	0.288	-1.2	-0.45	0.651
CURRENT	0.260**	2.28	0.585	0.577	3.8	1.33	0.183
MARGIN	-1.701***	-6.79	0.118	0.117	0.7	0.24	0.808
SIZE	1.138***	40.05	22.583	22.602	-1.5	-0.49	0.623

BOARD	-0.529***	-3.85	2.174	2.176	-0.6	-0.2	0.839
IND	-0.174*	-0.37	0.375	0.375	1.3	0.45	0.649
dual	0.258***	4.55	0.251	0.246	1.1	0.39	0.694
_cons	25.596***	-38.96	ATT	Treated	Control	Diff	t
N	14519		RKS	0.928	0.016	0.912	31.78
Pseudo R2	0.235		CSMAR	0.184	0.003	0.181	32.61

t statistics in parentheses *p< 0.1, **p< 0.05, ***p< 0.01

4.3 Regress Results

Table3 presents regression results to test H2 and H3. The reported t-values are based on standard errors that are corrected for heteroscedasticity and clustered at the firm level. Among the results (column1 and column5) reported in table3, we find CSR pressure from peer firms is strongly positively (p<0.01) related to their CSR performance in next year. This is consistent with our primary hypotheses that fund investors bring the network pressure to the firms they invest in order to promote their CSR.

In particular, we consider the relationship between network degree and CSR in regression model (column2-4 and column6-8). The results show centrality degree is positively related to CSR at different significant level. As we discuss before, firms could acquire more information and mimic other companies' behaviors through social network. Managers will imitate neighbor companies which have same fund investors to make their CSR decisions. To some extent, the results support hypothesis 2 and hypothesis 3.

Table3. Regress Results

	Model 2				Model 3				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
P_RKS	0.2183*** (6.20)	0.2232*** (6.51)	0.2104*** (6.05)	0.2180*** (6.21)	P_CSM	0.2826*** (7.39)	0.2830*** (7.52)	0.2656*** (7.01)	0.2759*** (7.21)
CEN_B		4.8864 (0.46)			CEN_B		0.7527 (0.38)		
CEN_C			2.2239*** (2.73)		CEN_C			0.5136*** (3.23)	
CEN_D				6.0115 (1.60)	CEN_D				1.2991* (1.76)
LEV	-1.0593* (-2.50)	-1.0548** (-2.54)	-1.0167** (-2.42)	-1.0023** (-2.41)	LEV	-0.1613 (-1.91)	-0.1617* (-1.94)	-0.1518* (-1.81)	-0.1494* (-1.79)
SIZE	0.6132*** (9.71)	0.6048*** (10.10)	0.5846*** (9.35)	0.5777*** (9.68)	SIZE	0.1044*** (8.31)	0.1034*** (8.57)	0.0981*** (7.87)	0.0971*** (8.06)
OCF	0.3802 (0.54)	0.3120 (0.45)	0.2531 (0.36)	0.1300 (0.18)	OCF	0.1088 (0.82)	0.1011 (0.77)	0.0838 (0.64)	0.0584 (0.44)
INST	-0.0024 (-0.34)	-0.0018 (-0.27)	-0.0019 (-0.29)	-0.0015 (-0.22)	INST	-0.0003 (-0.23)	-0.0003 (-0.24)	-0.0003 (-0.25)	-0.0002 (-0.17)
GROWTH	-0.1242 (-1.36)	-0.1282 (-1.43)	-0.1219 (-1.37)	-0.1428 (-1.64)	GROWTH	-0.0159 (-0.87)	-0.0163 (-0.90)	-0.0148 (-0.83)	-0.0195 (-1.12)
AGE	0.2040 (1.78)	0.1920* (1.69)	0.2026* (1.78)	0.1950* (1.72)	AGE	0.0234 (1.05)	0.0218 (0.98)	0.0243 (1.09)	0.0225 (1.01)
SOE	0.0858 (0.55)	0.0776 (0.50)	0.0622 (0.41)	0.0729 (0.48)	SOE	0.0233 (0.79)	0.0225 (0.76)	0.0191 (0.65)	0.0215 (0.74)
TOP1	0.2748 (0.67)	0.2891 (0.70)	0.3394 (0.84)	0.3720 (0.90)	TOP1	0.0062 (0.07)	0.0075 (0.09)	0.0202 (0.24)	0.0265 (0.31)
DUAL	-0.0204	-0.0231	-0.0326	-0.0352	DUAL	0.0028	0.0015	-0.0008	-0.0014

	(-0.15)	(-0.17)	(-0.24)	(-0.26)		(0.10)	(0.05)	(-0.03)	(-0.05)
BOARD	0.3513	0.3179	0.3530	0.3332	BOARD	0.0179	0.0129	0.0210	0.0162
	(1.01)	(0.92)	(1.02)	(0.97)		(0.25)	(0.18)	(0.30)	(0.23)
IND	2.0445*	2.0107**	2.0465**	2.0588**	IND	0.4511*	0.4451**	0.4570**	0.4586**
	(2.06)	(2.07)	(2.07)	(2.11)		(2.27)	(2.26)	(2.30)	(2.33)
_CONS	-15.2484***	-14.9818***	-15.2052***	-14.6231***	_CONS	-2.4920***	-2.4532***	-2.4979***	-2.3691***
	(-10.92)	(-11.08)	(-10.86)	(-10.78)		(-8.91)	(-9.03)	(-8.87)	(-8.70)
adj. R2	0.272	0.270	0.275	0.275	adj. R2	0.225	0.224	0.231	0.229
N	1259	1267	1267	1267	N	1259	1267	1267	1267

t statistics in parentheses *p< 0.1, **p< 0.05, ***p< 0.01

We regress CSR on all corporate governance variables in model to test the impact of all the hypothesized variables. Our results with respect to the coefficients of hypothesised variables are consistent with main findings reported in column1 and column5. In regards to control variables, the results of our analysis to the control variables are consistent with the previous studies (Haniffa & Cooke 2005; Ghazali 2007).

5. CONCLUSION

This paper analyses the relationship between fund investors and CSR performance. This association is also examined with peer pressure and centrality degree in funds network. Our results report that fund investors impact positively on firm CSR performance as predicted. Nowadays, fund investors provide advices on CSR through corporate governance mechanisms. The direct engagement of institutional directors on firms, particularly on their governance, is unquestionable. In this line, fund investors activism might encourage firms in which they have invested to become more engaged with socially responsible and active investments.

Our investigation has relevant implications from an academic and political perspective, since it reports new evidence on how fund investors impact CSR performance, which is meaningful to examine in a background of green governance. Additionally, regulatory bodies should also suggest that firms aware of the importance of CSR behaviors. Policymakers, based on our evidence, should promote the presence of fund investors' directors on listed companies' boards since they support CSR reporting.

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Getting Wiser with The Food We Consume: The Key to Diminish Global Famine and Climate Change.

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1. INTRODUCTION

The Food and Agriculture Organization (FAO) conducted in 2011 a study that claimed that worldwide more than 1,300,000,000 tons of food are lost or wasted every year³¹. Ironically, in the same year United Nations reported that nearly 900 million people did not have enough food to meet their daily 2000 Cal for a balanced diet, therefore, people were in the stage of undernourishment. We live in a world where food is being overproduced and it is wasted in scandalous amounts. Yet food security represents an urgent challenge for heads of states because of the exponential growth of the population and the hassle that global warming and climate change impose into the production.

Although, the term “food security” originated first in 1974 at the World Food Conference, it has constantly been revised and updated with the incorporation of societal issues and human rights. The most recent and widely accepted definition states that “it is a condition in which all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life” (World Food Summit, 1996). However, this definition still seems disconnected from attributing responsibilities to the consumer. In other words, consumers are not yet accountable for their negligence and those that have already met their food requirements became responsible for assuring that the resources they are employing do not work against others trying to achieve the same goal.

So much is being done already to increase food production. Human in the history of humanity has never had such success in food production. Genetically modified crops, that leads to stronger and more resistant crops to the adversities of climate, enhanced nutritional values, longer life spans and others. And yet the question for some governments is how they can produce more food for everyone. In fact, the food being wasted represents the solution for tackling food insecurity. However, we have never been well educated on how to correctly handle the food we consume. And education on food waste reduction is the key to feed the almost 10 billion people in the world by 2050³².

This paper studies the implications of food waste at consumer’s level, explore the causes that lead to this conduct and the consequences to the economy, the environment and the society. Subsequently, explores solutions and describes alternatives that could better address food security and diminish global famine.

2. FOOD LOSS VS FOOD WASTE

2.1 Food Loss

It is directly associated with the reduction in the quality of the food. In other words, food that spoils before reaches the consumer. The causes are usually unintentional, and they are the result of technical limitation, bad refrigeration, deficiencies in infrastructure, packaging, handling and other procedural problems in the production and distribution stages.

2.2 Food Waste

³¹ Global Food Losses and Food Waste (2011). The results of the study suggest that roughly one-third of food produced for human consumption is lost or wasted globally, which amounts to about 1.3 billion tons per year.

³² United Nations: Department of Economic and Social Affairs states that the World population is projected to reach 9.7 billion by 2050.

Defined as a good quality food suitable for human consumption, but ends up wasted because of retailers or consumer's negligence. In other words, food that meets or exceeds safety standards for consumption is thrown away on a conscious decision due to product imperfections (colour, size or shape), rigid or misinterpreted label rules, inappropriate storage, and purchasing behaviour or improper cooking practices.

It is important to mention that "food loss" usually is more predominant in developing countries, perhaps because economic limitations and technology deficiencies, in the other hand, "food waste" have a tendency to be more established in developed countries, where food is aggressively marketed, and seen as merchandise or commodity rather than a basic need.

3 IMPACT OF FOOD WASTE

3.1 Economic Impact

In order to quantify the global economic impact is necessary to develop a proper measurement system, have access to unrestricted and un-manipulated data, and articulate a better understanding on how cultures and countries look at food waste differently, which means that waste for some cultures is not for others. For instance, evaluating food waste in North America, Neff et al. 2015, found that Americans and Canadians waste together close to \$231 billion on uneaten food. Yet, that cost only represents 29% of the full cost in the economy. Cost of labour, transportation of the goods to the markets, or food left unharvested are not even accounted.

The economic losses from food waste are colossal. The monetary value employed could be better invested in the environment or funding social programs. For instance, all the money lost in North America due to food waste could cover most of Canada's federal budget. At the individual level, food wastage in homes adds about \$700 to \$1500³³ a year to a household's grocery bill. At the retail level, the value of unnecessary food waste is estimated at \$165 billion annually, represents more than 20% of the \$750 billion wasted worldwide, which is 700% the investment in development Aid.

Food waste also impacts on the cost of food as a direct consequence. The current economic system based on the principle of supply and demand creates an unsustainable model. Waste food induces the demand for "needing" more food, therefore, more resources are used to grow and transport food, like water and energy, which become costlier since they are more utilized. In other words, the more we "need" to grow food in an increasing population-environment make the cost higher. Those costs translate to higher costs at the production and distribution level, which customers end up paying.

3.2 Ecological Impact

Whichever the terms we refer to, either "Food loss" or "food waste", both has required enormous amounts of energy, land, water, time, natural resources, human labour, chemicals, transportation, and others in order to be produced. All this process creates CO₂ emissions that contribute to the global warming which threaten the efforts for food security. In other words, food waste becomes a problem that requires more resources to be treated.

3.2.1 CO₂ footprint of global food wastage

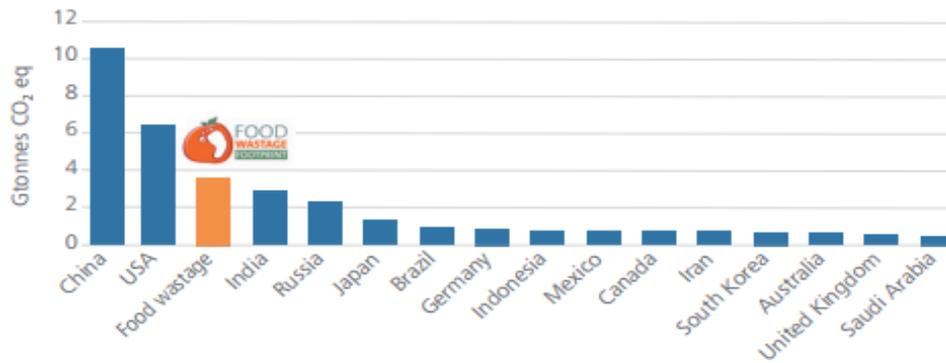
According to the FAO, food waste produces 3.3 gigatons of CO₂ and represents the third largest source of CO₂ emissions in the world³⁴. Furthermore, the food that is produced and subsequently discarded, occupies approximately 30% of the farming land in the world impacting also on the biodiversity due to the harvesting practices and deforestation. Figure 1 shows the CO₂ emissions of

³³The average family throws out \$130 to \$230 worth of food monthly. In United States, the monthly bill could reach up to \$300, similarly in Canadian Cities such as Vancouver, the monthly wasted household bill is approximately \$70. Weber, C. L., & Matthews, H. S. (2008)

³⁴ FAO compares the gas emissions originated by food waste to the overall gas emissions of the top 15 countries that most contributes to the global warming.

15 of the most CO₂ emitter countries in the world and adds food wastage like as if this were a country, so, it would occupy be the third largest CO₂ emitters after China and USA.

Figure 1. Total CO₂ emissions of top 15 of countries (year 2011) vs. Food wastage.

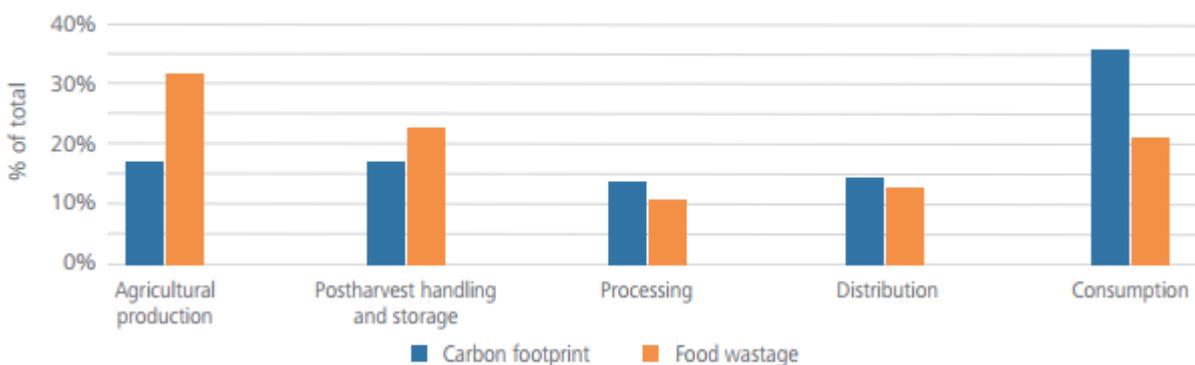


Source: *Food Wastage Footprint Full-cost Accounting (2014)*.

3.2.2 CO₂ emissions by product

The associated CO₂ emissions of food waste depend on fundamentally 3 main factors, first, the location where the food is being produced; second, the type of product and; third the stage in which the food is being discarded. The location where vegetable production is being produced impacts on the Carbon emissions generated. For instance, Europe is more carbon intensive than vegetable production in Industrialized and Southeast Asia, as Europe uses more carbon-intensive means of production, such as artificially heated greenhouses. Inversely, cereal production in Asia is more carbon intensive than cereal production in Europe due to the difference in the type of cereal grown: rice on average has higher impact factors than wheat. Rice is a CH₄ emitting crop because of the decomposition of organic matter in paddy fields (1 kg of CH₄ is the equivalent of 25 kg of CO₂).

Figure 2. The contribution of each phase of the food supply chain to carbon footprint and food wastage.

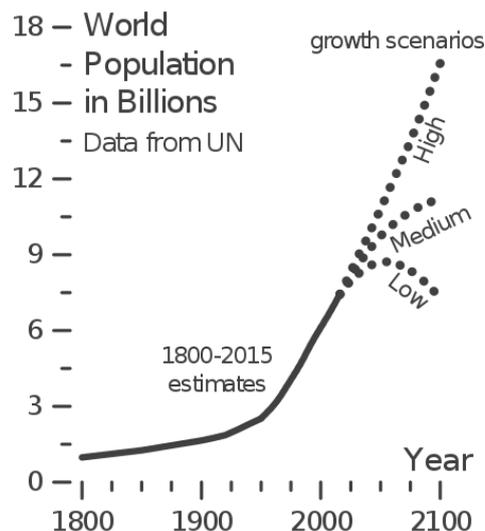


Source: *Food Wastage Footprint Full-cost Accounting (2014)*.

3.3 Ethical and Social Impact

In addition to the economic and environmental costs, food wastage represents a variety of social and ethical costs. The environmental costs of carbon emissions, which were described in section 3.2.1 also transform in social costs. For instance, agriculture activities lead to added costs in individual and societal health costs due to resource depletion and pollution. In other words, food wastage generates food security risks, loss of habitat and landscape that threaten the fauna, loss of livelihoods and possibilities of social conflicts, crime and violence due to resource depletion and lack of equitable access to those.

Figure 3. The current world population of 7.3 billion is expected to reach 8.5 billion by 2030, 9.7 billion in 2050 and 11.2 billion in 2100.



Source: United Nations. Department of Economic and Social Affairs.

Moreover, the actual production system of food is ethically questionable. Farmers and local producers enter into a market where their food is treated as a merchandise, so their effort and the value of their products are frequently dishonoured. Likewise, governments commit to deals that create barriers for locals to access land, and natural resources for their own production. Priority is given to the products that would benefit the country economically or the produce that will feed the animals for the meat industry.

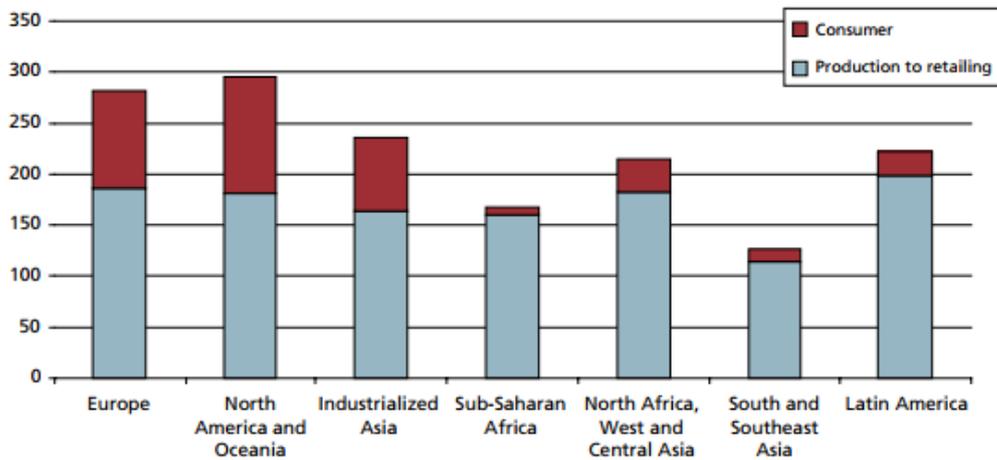
Currently, the global production of food could feed as much as 12 billion people, however, 40% of the world food production is wasted, creating a societal problem that leads to 1.3 billion tons of food being wasted where almost 900 million undernourished people.

4. ARE CONSUMERS TO BLAME FOR ALL THE FOOD IS WASTED?

According to Maus et. Al (1988), there are four changes in the household behaviours towards food consumption, that represent part of the explanation for food waste. The authors highlight first the “devaluation” of the food significance, which is seen as a product and not as need; second and third disinformation about “food identity” and “food origin”, in other words, the disconnection of cultural background of the food they access such as the ingredients and dishes history, loss of local food culture being globalization one of the main attributable reasons; and last “loss of social and emotional linkage to food”, where the authors explain that sitting in Family to eat together is not longer a tradition. Therefore, these four changes in the household behaviours have lead to an emotional disconnection to the food we consume and add the wrong perception that food is a product instead of something of vital need.

Unfortunately, in the global economy consumers are encouraged to purchase more food that they really need thanks to severe and vicious sells practices. This is exactly the behaviour must change if we do want to reduce the food that is being wasted. Whether or not changes in societal values are the causes of consumers disconnection to the value of the food they acquire, consumers are still responsible for their actions on food waste.

Figure 4. Per capita food losses and waste (Kg/year), at consumption and pre-consumption stages, in different regions of the world.



Source: Food Wastage Footprint Full-cost Accounting (2014)

Per capita Food losses and food waste at production and consumption levels are shown in figure 4. The graph displays seven different regions against the amount of food being wasted. Furthermore, the analysis of the graph can be interpreted by breaking down the data into developed countries (Europe, North America and industrialized Asia) and developing countries (Africa, South Asia and Latin America). It could be seen that the food wasted at production level is fundamentally the same no matter the region we are looking at; however, considerable differences are found when evaluating the food waste at the consumption level. First, the waste produced in developing countries at consumption level represents not more than 15% in the worst of the cases in comparison with the waste at the production level. Second, the total waste at the consumption level of the fourth developing regions (combined) is approximately similar to the same item in North America.

Per capita food losses in North America and Europe are approximately 300 kg/yr. each, conversely, in Southeast Asia, North sub-Saharan Africa, the production is nearly 170 Kg/year each. In North America are produced approximately 900 kg/yr. of food, similar numbers for Europe, in South Asia approximately 460 kg/yr. and 200 Kg/Year in Latin America. Regrettably, 95 to 115 kg /yr of the food produced in North America and Europe are lost at consumption level. In other regions, the losses only account for 6 to 11 kg /year, which represents without any doubt a different approach to the importance given to food by the consumers.

From this numbers, we could agree that all the food waste in North America could totally replace all the food loss at a production level of South and Southeast Asia. Similarly, adding the waste of food of Europe and Industrialized Asia would be enough to cover the losses at a production level of Latin-America.

5. CONCLUSIONS AND RECOMMENDATIONS

Certainly, consumers are the last piece in the equation on food waste, nonetheless, they are the ones that with proper education can contribute the most to the problem. Stopping and reducing consumer waste of food could advance food security, significantly improve nutrition and diminish the negative effects on the environment and impact on public health. Changes in food waste policies, business practices and individual incentives to reduce waste must be formed. We have to create campaigns that discourage the compulsory consumption behaviour of purchasing, provide education towards food freshness, expiration or due date labeling standards; create incentives for restaurants to provide smaller portions, implementing a waste management payment system (or in other words “fines” for waste food) according to the weight of household waste produced, better regulate sells at retailer’s level, as well as, the weekly, monthly promotional and loyalty programs, etc. Those are some of the examples that can be implemented to tackle the problem that keeps almost 900 million undernourished people.

The possible solutions to reduce food waste can be grouped in 2 categories, immediate solutions, that although are not sustainable, are needed in the short term and sustainable solutions that in other words will not create other problems.

Table 1. Group of solutions for food waste

5.1 Immediate Solutions

- Secondary resellers. (Sell after expiration dates).
- Home Composting.
- In-vessel Composting.
- Community Composting.
- Water resources management facilities.
- Centralized anaerobic digestion.
- Animal feed.
- Tax donation incentives.
- Apply fines.

5.2 Sustainable Solutions

- Food waste reduction initiatives.
- Consumers to buy and prepare food with a plan.
- Food recycling.
- Better labelling, better Understanding.
- Smaller plates, smaller portions.
- Consumption of imperfect produce (wrong shape, colour, size, etc).
- “Freshness”, non-fresh does not mean toxic.
- Understanding retail marketing campaigns.

Finally, solutions for solving the problem of food waste resides on changing consumers ‘patterns of behaviour through proper education. The paper focused on solutions that pass by changes in food waste policies, business practices and individual incentives to reduce waste. It was stressed that the relevance of looking into the dynamics of demand and supply to tackle food waste and that the solutions for this do not necessarily overlap with solutions to famine in developing countries. Added research would be relevant to improve the distribution of food to more deprived areas. In areas with food shortage, famine eradication crucially depends on the design of institutional changes leveraged by technological development.

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Research of Game Strategy on the Online Public Opinion in the Mode of Individual Help for Online Donation

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1.INTRODUCTION

In the era of "Internet +", the public participation rate of charity activities has been greatly improved by the online donation, as a new way of charitable donations, online donation has been more and more accepted among the public. However, the anonymous and private problem of the new model can not guarantee the authenticity of the donation information,we take Tianjin bombings event as an example, Sina Microblogging platform users called "my heart belong to Bayern Munich always" utilized the negative impact of the incident, falsely claimed that his father was killed in the Tianjin bombings to deceive the reward;" know the goddess "Tong Yao fraud on the platform with the Kochi users' representative group and the "Rolle incident" broke out on the WeChat platform at the end of 2016, eventually , individual help was evolved into marketing tools,consumed donators' trust and love, such events triggered online public opinion pushing network donation to the cusp.

Standardized individual help is to seek fundraising by virtue of charitable organizations. In reality, most of the individual users prefer to seek help in the WeChat friends circle and other social platform through the acquaintance of mutual forwarding and other donations, this way of transforming rescue information formed a "information aggregation", promoted to online public opinion(FANG Fu-jian 2011)developing. However,individual help fundraising was easy to be malicious abuse of the request without a rigorous review and supervision, and published fictitious information by virtual of public good faith, once the event exposed, the public interest would be damaged as well as the tendency of public opinion would be difficult to control(Shibo 2010), resultly,it can not only intensified the online public opinion's fermentation, but also reduced the credibility of the network public welfare. Therefore, the government should provide guidance on the information,as well as take positive measures to deal with the outbreak of online public opinion, under the rational control of cyberspace and the appropriate punishment for the subject, to compensate for public interest,and to make the negative online public opinion be reasonable soluted.

2. LITERATURE REVIEW

Online public opinion refers to netizens with different views on the social issues expressing and disseminating a strong influence on the collection of emotional, public opinion and behavior's tendencies through the Internet media(Zeng Runxi 2009). The evolution of the online public opinion is the result of the interaction of the participants, participants can choose the appropriate behavior strategy, take the initiative to promote the online public opinion to the expected direction(Bin Ning, Yank Shubiao & Hu Feng 2017). At present, research scholars for the evolution of online public opinion are mostly from the perspective of the incident itself, government's behavior and public opinion. The overseas research on the evolution of online public opinion mainly focuses on explaining the evolution process of public opinion through the particle interaction model, such as Sznajd model and its modified model(Sznajd J N K 2000), limited liability model(Weisbuch G 2004). In addition, such twitter, microblog and other social platforms as an important media for the spread of online public opinion due to less information, widely disseminated and other prominent features become the focus of research(WANG Shu-xian 2016). While domestic scholars focus on the evolution of online public opinion and influence factors. Sun Yixiao (2016)considered that some of the opinion leaders have significant effects but lack a sense of self-discipline which based on the matrix model analysis. Wang Xu et al(2017) took "Wei Zexi event" as an example, combined with social network analysis and quantitative methods to explore the process of online public opinion's diffusion. Qi Kai et al(2017) took evolutionary theory of the

game into the analysis of the online public opinion transmission of the netizen groups, and found that the punishment mechanism and the initial state of the netizen played an important role in the guidance and tendency of public opinion. Zhang Lifan et al(2017) constructed the utility function game matrix with fairness factors to analyze the selection of network media-government, netizen-opinion leaders in the subjective game process, to obtain the perfect subgame equilibrium path conditions. This paper takes the "Rohr event" as an example, and creatively introduces the dynamic evolutionary game method to analyze the evolution process of the network public opinion in the model of individual help for online donations, and puts forward the guidance and recommendations for multi-participant subject's strategies selection in the different stages of public opinion, and thus effectively inhibit the negative impact of online public opinion.

3.ANALYSIS OF THE GAME EQUILIBRIUM OF PUBLIC OPINION EVOLUTION IN THE MODE OF INDIVIDUAL HELP FOR ONLINE DONATION

3.1 Research on the Formation of Online Public Opinion in the Mode of Individual Help for Online Donation

Collections of participants' strategy:

The selection set of the recipients' strategy is {publish the real information, publish the fictitious information}; the selection set of business' strategy is {cooperate, no cooperate}; the selection set of netizens' strategy is {donor, no donor}. Donations here are rewarded, forwarded or directed. Table 1 shows the recipients-business-netizens' income risk matrix.

Table 1. Recipients-Business-Netizens Income Risk Matrix

Strategy combination	recipients	business	netizens
(publish the real information, cooperate, donor)	$U1+\alpha1-u1-a1-a2$	$W1+\theta1-w1$	$R1+\sigma1-r1+R2+R2+W2$
(publish the real information, cooperate, no donor)	$U1-u1-a1-b1$	$W1-w1$	0
(publish the real information, no cooperate, donor)	$U1+\beta1-u1-a2$	-c2	$R1+\sigma1-r1+R2$
(publish the real information, no cooperate, no donor)	$U1-u1-b1$	0	0
(publish the fictitious information, cooperate, donor)	$U1+\alpha1-u1-a1-a2-b3$	$W1-w1-c1$	$R1-r1-r2-w2$
(publish the fictitious information, cooperate, no donor)	$U1-u1-a1$	$W1-w1-c1$	$\sigma2-w2$
(publish the fictitious information, no cooperate, donor)	$U1+\beta1-u1-a2-b2$	0	$R1-r1-r2$
(publish the fictitious information, no cooperate, no donor)	$U1-u1$	$\theta3$	$\sigma2+W2$

Table 2 shows the related risk parameters involved in the income risk matrix.

Table 2. Parameter Definition

symbol	Symbol Description
U1	Recipients can obtain normal income through the social platform for help.
$\alpha1$	Recipients can obtain additional benefits from netizens with business assistance .
$\beta1$	Recipients can't obtain additional benefits from netizens without business assistance .
u1	Recipients need to pay the cost through the online social platform for help.
a1	Recipients need to pay the cost for enterprises' funding.
a2	Recipients need to pay the cost for getting the netizen's trust and donations.
b1	Recipients need to take risks of difficult raising funds and delaying illness when they published the real information without netizen's trust and donation .
b2	Recipients need to take risks of the pressure from donors' condemn and denounce when they published the fictitious information .
b3	Recipients need to take risks of accepting more serious penalties for cooperating with companies with publishing the fictitious information.
W1	Enterprises can receive brand revenue through participating in public welfare.
W2	Enterprises can bring positive and stable benefits with promoting the development of online public welfare to the community .
$\theta1$	Enterprises can receive additional benefits from netizen's donation by assisting in the issuance of recipients who published real information.
$\theta2$	Enterprise can protect the positive image for colliding with the recipients who published the fictitious information .
w1	Enterprises and recipients' cooperation need to pay the cost of network fundraising activities.
c1	Enterprises can be condemned by the public and bring in other negative impact because of colliding with recipients who published the fictitious information .
w2	Enterprises hinder the development of Internet public welfare, and are questioned by the public as well as

	bring in other negative impact because of colliding with recipients who published the fictitious information .
c2	Enterprise has lost the opportunity to establish a brand image because it has not assisted the person who published the real information at the same time obtained the donation from the netizens.
R1	Netizens receive social benefits from recipients who published the real information .
σ_1	Netizens receive the additional benefits from donating recipients who published the real information..
σ_2	Netizens receive the additional benefits from not donating recipients who published the fictitious information.
r1	Netizens need to pay the cost through the social platform for donor.
r2	Netizens could lose money and have a sense of psychological loss and other discontent due to donate recipients who published the fictitious information.
R2	Netizens promote the orderly and positive development of Internet public welfare due to donate recipients who published the real information.

Assuming that the proportion of recipients choose to release the proportion of real information is x , then select the ratio of releasing the fictitious information $(1-x)$; the proportion of enterprises choosing to cooperate with the recipients is y , and the proportion of non-cooperation is chosen as $(1-y)$; the proportion of netizens choose to donate is z , choose not to donate the ratio of $(1-z)$; The recipients choose the benefits of different strategies available as:

$$A_{11} = yz(U_1 + \alpha_1 - u_1 - a_1 - a_2) + y(1-z)(U_1 - a_1 - u_1 - b_1) + (1-y)z(U_1 + \beta_1 - u_1 - a_2) + (1-y)(1-z)(U_1 - u_1 - b_1)$$

$$A_{12} = yz(U_1 + \alpha_1 - u_1 - a_1 - a_2 - b_3) + y(1-z)(U_1 - a_1 - u_1) + (1-y)z(U_1 + \beta_1 - u_1 - a_2 - b_2) + (1-y)(1-z)(U_1 - u_1)$$

$$\bar{A}_1 = xA_{11} + (1-x)A_{12}$$

So the recipients choose to publish the real information strategy with the dynamic replication equation can be referred as follows:

$$F(x) = \frac{dx}{dt} = x(1-x)(A_{11} - \bar{A}_1) = x(1-x)(-b_1 + zb_1 + zb_2 - yzb_2 + yzb_3) \quad (1)$$

Make $F(x)=0$, so the balance of the three-way game can be obtained $x=1, 0, y = \frac{b_1}{b_3-b_2} \frac{1}{z} - \frac{b_1+b_2}{b_3-b_2}$,

when $y = \frac{b_1}{b_3-b_2} \frac{1}{z} - \frac{b_1+b_2}{b_3-b_2}$, at this time $F(x) \equiv 0$; regardless of what value of x , tripartite interests can get

the maximum, all points are dynamic equilibrium points; when $y > \frac{b_1}{b_3-b_2} \frac{1}{z} - \frac{b_1+b_2}{b_3-b_2}$, $\left. \frac{\partial F(x)}{\partial x} \right|_{x=1} < 0, \left. \frac{\partial F(x)}{\partial x} \right|_{x=0} > 0$ at this time $x=1$ is the equilibrium point, then the recipients will choose to publish the real

information; when $y < \frac{b_1}{b_3-b_2} \frac{1}{z} - \frac{b_1+b_2}{b_3-b_2}$, because $\left. \frac{\partial F(x)}{\partial x} \right|_{x=0} < 0, \left. \frac{\partial F(x)}{\partial x} \right|_{x=1} > 0$, at that time, $x=0$ is the equilibrium point, thus the recipients will choose to publish fictitious information.

Similarly, enterprises choose the benefits of different strategies available as:

$$B_{11} = xz(W_1 + \theta_1 - w_1) + x(1-z)(W_1 - w_1) + (1-x)z(W_1 - w_1 - c_1) + (1-x)(1-z)(W_1 - w_1 - c_1)$$

$$B_{12} = xz(-c_2) + (1-x)z\theta_2$$

$$\bar{B}_1 = yB_{11} + (1-y)B_{12}$$

the dynamic replication equation can be referred as follows:

$$F(y) = \frac{dy}{dt} = y(1-y)(B_{11} - \bar{B}_1) = y(1-y)(xz\theta_1 + W_1 - w_1 - c_1 + xc_1 + xzc_2 - \theta_2 + x\theta_2) \quad (2)$$

Make $F(y)=0$ So the balance of the tripartite game can be obtained $y=1, 0, z = \frac{-W_1 + w_1 + c_1 + \theta_2}{\theta_1 + c_2} \frac{1}{x} - \frac{c_1 + \theta_2}{\theta_1 + c_2}$,

when $z = \frac{-W_1 + w_1 + c_1 + \theta_2}{\theta_1 + c_2} \frac{1}{x} - \frac{c_1 + \theta_2}{\theta_1 + c_2}$, at this time $F(y) \equiv 0$, regardless of what value of y , tripartite interests

can get the maximum, all points are dynamic equilibrium points; when $z > \frac{-W_1 + w_1 + c_1 + \theta_2}{\theta_1 + c_2} \frac{1}{x} - \frac{c_1 + \theta_2}{\theta_1 + c_2}$,

because $\left. \frac{\partial F(y)}{\partial y} \right|_{y=1} < 0, \left. \frac{\partial F(y)}{\partial y} \right|_{y=0} > 0$, at this time $y=1$ is the equilibrium point, then enterprises will choose to

cooperate with the recipients; when $z < \frac{-W_1 + w_1 + c_1 + \theta_2}{\theta_1 + c_2} \frac{1}{x} - \frac{c_1 + \theta_2}{\theta_1 + c_2}$, because $\left. \frac{\partial F(y)}{\partial y} \right|_{y=0} < 0, \left. \frac{\partial F(y)}{\partial y} \right|_{y=1} > 0$ at this time $y=0$ is the equilibrium point, then enterprises will refuse to cooperate with the recipients; Thus

netizens choose the benefits of different strategies available as:

$$C_{11} = xy(R_1 + \sigma_1 - r_1 + R_2 + W_2) + x(1-y)(R_1 + \sigma_1 - r_1 + R_2) + (1-x)y(R_1 - r_1 - r_2 - w_2) + (1-x)(1-y)(R_1 - r_1 - r_2)$$

$$C_{12} = (1-x)y(\sigma_2 - w_2) + (1-x)(1-y)(\sigma_2 + W_2)$$

$$\bar{C}_1 = zC_{11} + (1-z)C_{12}$$

Netizens choose to donate with the dynamic replication equation can be referred as follows:

$$F(z) = \frac{dz}{dt} = z(1-z)(C_{11} - C_{12}) = z(1-z)(x\sigma_1 + R_1 - r_1 - r_2 + xR_2 + x\sigma_2 - \sigma_2 + xr_2 + yW_2 + xW_2 - W_2) \quad (3)$$

Make $F(z) = 0$, so the balance of the tripartite game can be obtained

$$z = 1, 0, x = -\frac{W_2}{W_2 + \sigma_1 + R_2 + r_2 + \sigma_2} y + \frac{W_2 + r_1 - R_1 + r_2 + \sigma_2}{W_2 + \sigma_1 + R_2 + r_2 + \sigma_2}, \text{ when } x = -\frac{W_2}{W_2 + \sigma_1 + R_2 + r_2 + \sigma_2} y + \frac{W_2 + r_1 - R_1 + r_2 + \sigma_2}{W_2 + \sigma_1 + R_2 + r_2 + \sigma_2}, F(z) \equiv 0,$$

at this time regardless of what value of z , tripartite interests can get the maximum, all points are

dynamic equilibrium points; when $x > -\frac{W_2}{W_2 + \sigma_1 + R_2 + r_2 + \sigma_2} y + \frac{W_2 + r_1 - R_1 + r_2 + \sigma_2}{W_2 + \sigma_1 + R_2 + r_2 + \sigma_2}$, because $\left. \frac{\partial F(z)}{\partial z} \right|_{z=1} < 0, \left. \frac{\partial F(z)}{\partial z} \right|_{z=0} > 0$

at this time $z = 1$ is the equilibrium point, then netizens will choose to donate; when

$x < -\frac{W_2}{W_2 + \sigma_1 + R_2 + r_2 + \sigma_2} y + \frac{W_2 + r_1 - R_1 + r_2 + \sigma_2}{W_2 + \sigma_1 + R_2 + r_2 + \sigma_2}$, because $\left. \frac{\partial F(z)}{\partial z} \right|_{z=1} > 0, \left. \frac{\partial F(z)}{\partial z} \right|_{z=0} < 0$ at this time $z = 0$ is the equilibrium

point, then netizens will choose not to donate.

Based on the replicated dynamic equation method, the equilibrium point analysis can obtain the equilibrium point of the local steady state of the online public opinion in the formation phase. Therefore, the local stability of each equilibrium point can be analyzed by using the Jacobian matrix to find the steady state of the online public opinion stability point. The Jacobian matrix is:

$$J = \begin{pmatrix} (1-2x)(-b_1 + zb_1 + zb_2 - yzb_2 + yzb_3) & (x-x^2)(-zb_2 + zb_3) & (x-x^2)(b_1 + b_2 - yb_2 + yb_3) \\ (y-y^2)(z\theta_1 + c_1 + zc_2 + \theta_2) & (1-2y)(xz\theta_1 + W_1 - w_1 - c_1 + xc_1 + xzc_2 - \theta_2 + x\theta_2) & (y-y^2)(x\theta_1 + xc_2) \\ (z-z^2)(\sigma_1 + R_2 + \sigma_2 + r_2 + W_2) & (z-z^2)W_2 & (1-2z)(x\sigma_1 + R_1 - r_1 - r_2 + xR_2 + x\sigma_2 - \sigma_2 + xr_2 + yW_2 + xW_2 - W_2) \end{pmatrix}$$

$$A = -b_1 + zb_1 + zb_2 - yzb_2 + yzb_3, B = xz\theta_1 + W_1 - w_1 - c_1 + xc_1 + xzc_2 - \theta_2 + x\theta_2,$$

Make $C = x\sigma_1 + R_1 - r_1 - r_2 + xR_2 + x\sigma_2 - \sigma_2 + xr_2 + yW_2 + xW_2 - W_2$

$$TrJ = (1-2x)A + (1-2y)B + (1-2z)C$$

$$\det J = (1-2x)(1-2y)(1-2z)ABC + xyz(1-x)(1-y)(1-z)[(-zb_2 + zb_3)(x\theta_1 + xc_2)(\sigma_1 + R_2 + \sigma_2 + r_2 + W_2) + (b_1 + b_2 - yb_2 + yb_3)(z\theta_1 + c_1 + zc_2 + \theta_2)W_2] - xy(1-x)(1-y)(1-2z)C(-zb_2 + zb_3)(z\theta_1 + c_1 + zc_2 + \theta_2) - yz(1-y)(1-z)(1-2x)A(x\theta_1 + xc_2)W_2 - xz(1-x)(1-z)(1-2y)B(b_1 + b_2 - yb_2 + yb_3)(\sigma_1 + R_2 + \sigma_2 + r_2 + W_2) \quad (4)$$

According to the results of the equilibrium analysis, we can see that when the enterprises choose the cooperative strategy as $y = 1$, plus $W_1 - w_1 + \theta_1 > 0$, similarly when the user chooses the donation strategy as $z = 1$, plus $R_1 + \sigma_1 - r_1 + R_2 + W_2 > 0$, which can be immediately and substituted into the formula (4). then we can find the equilibrium point is $(1,1,1), (1,0,1), (1,0,0), (0,0,0)$, and $\det J < 0$, the result indicate that the determinant is the saddle point and is locally stable state, thus the choice of the above strategy can not make public opinion to achieve the evolution of stable state, when participants' strategy affected by the outside world, they would tend to reverse the direction to make the overall stability of the fluctuations, and thus not enough to make the formation of public opinion continue to advance; when the equilibrium point is $(0,1,0), (0,0,1), (1,1,0)$ and $\det J > 0, TrJ$ uncertainty, so the point is still saddle point, only in the local stable state, the above strategy is not evolutionary stability strategy; when the equilibrium point is $(0,1,1)$ meet the conditions that $\det J > 0, TrJ < 0$ then tripartite interests at this time to achieve a balanced and stable state, thus the equilibrium point for the evolution Stability point is $(0,1,1)$, indicating that the recipients choose to publish fictitious information, companies choose cooperate and Netizens choose to believe and forward the strategy as the evolution of stability strategy.

3.2. Research on the Development of Online Public Opinion in the Mode of Individual Help for Online Donation

Collections of participants' strategy:

The selection set of the netizens' strategy is {believe, question}; when the netizens question the authenticity of help information from recipients will accelerate the spread of public opinion, otherwise, public opinion will be blocked. Table 3 shows the income risk matrix between netizens and netizens.

Table 3.Netizens-Netizens Income Risk Matrix

Strategy combination		netizens	
		believe	question
netizens	believe	U-a,U-a	$R+\beta_1 R-r -(M+\beta_1 M-m) ,r+\beta_2 R-r -(m+\beta_2 M-m) $
	question	$r+\beta_2 R-r -(m+\beta_2 M-m) ,R+\beta_1 R-r -(M+\beta_1 M-m) $	W-b,W-b

Table 4 shows the related risk parameters involved in the income risk matrix.

Table 4.Parameter Definition

symbol	Symbol Description
U	netizens A and netizens B obtained the psychological identity and other benefits for believing that the authenticity of the information from recipients
a	netizens are responsible for the risk of being deceived by the help of recipients
b	netizens need to pay the cost of public information dissemination for questioning.
W	netizens A and netizens B obtained the psychological satisfaction and other benefits for questioning the authenticity of help information from recipients.
R	When one of the netizens choose to believe the other choose to question, the believe one receive the inherent benefit.
r	When one of the netizens choose to believe the other one choose to question, the question one receive the inherent benefit.
M	When one of the netizens choose to believe the other one choose to question, the believe one take the risk.
m	When one of the netizens choose to believe the other one choose to question, the question one take the risk.
β_1	The additional revenue and cost factor of the trust party available when the two parties did not reach the agreement.
β_2	The additional revenue and cost factor of the question party available when the two parties did not reach the agreement.

Assuming that the proportion of netizens choose to believe is x , then select the ratio of questioning $(1-x)$;Therefore, the netizens choose the benefits of different strategies available as:

$$A_{11} = (U - a)x + [R + \beta_1|R - r| - (M + \beta_1|M - m)](1 - x)$$

$$A_{12} = [r + \beta_2|R - r| - (m + \beta_2|M - m)]x + (W - b)(1 - x)$$

$$\bar{A}_1 = xA_{11} + (1 - x)A_{12}$$

The netizens choose to believe with the dynamic replication equation can be referred as follows:

$$F(x) = \frac{dx}{dt} = x(1-x)\{[U - a - (r + \beta_2|R - r|) + (m + \beta_2|M - m)]x + (1-x)[-(W - b) + (R + \beta_1|R - r|) - (M + \beta_1|M - m)]\} \quad (5)$$

Make $F(x) = 0$ $A = U - a - (r + \beta_2|R - r|) + (m + \beta_2|M - m)$ $B = -(W - b) + (R + \beta_1|R - r|) - (M + \beta_1|M - m)$ We can get the

equilibrium point of the three-way game as follows: $x = 1, 0, x^* = \frac{-B}{A - B}$ when $A > 0, B > 0$, if $A > B$, then

$x^* < 0$, else if $A < B$, then $x^* > 1$, x is not the equilibrium point; at the same time $\frac{\partial F(x)}{\partial x}|_{x=1} < 0, \frac{\partial F(x)}{\partial x}|_{x=0} > 0$, $x = 1$

is the only equilibrium point; when $A > 0, B < 0$, if $A > |B|$, then $0 < x^* < 1$, at the same time

$\frac{\partial F(x)}{\partial x}|_{x=1} < 0, \frac{\partial F(x)}{\partial x}|_{x=0} < 0$, $x = 1, 0, x^*$ are th equilibrium points; if $A < |B|$, then $x^* < 0$, thus x^* is not the

equilibrium point, at the same time $\frac{\partial F(x)}{\partial x}|_{x=1} < 0, \frac{\partial F(x)}{\partial x}|_{x=0} < 0$, so there are two equilibrium points, respectively

$x = 1, 0$; when $A < 0, B > 0$, then $0 < x^* < 1$ and $\frac{\partial F(x)}{\partial x}|_{x=1} > 0, \frac{\partial F(x)}{\partial x}|_{x=0} > 0$, x^* is the only equilibrium

point; when $A < 0, B < 0$, because $x^* > 1, or, x^* < 0$, thus x^* is not the equilibrium point; at the same time

$\frac{\partial F(x)}{\partial x}|_{x=1} > 0, \frac{\partial F(x)}{\partial x}|_{x=0} < 0$, thus $x = 0$ is the only equilibrium point.

3.3. Research on the Control of Online Public Opinion in the Mode of Individual Help for Online Donation

Collections of participants' strategy:

The selection set of the government's strategy is {intervene, do not intervene}; The selection set of the parties'(including recipients and enterprises) strategy is {explain, do not explain}; The selection set of the netizens' strategy is {pursue, do not pursue}. Thus Table 5 shows the income risk matrix of

the government-parties-netizens.

Table 5. Government-Parties-Netizens' Income Risk Matrix

Strategy combination	government	Parties	Netizens
(intervene, explain, pursue)	q1-a	-b	M1-c+U
(intervene, explain, do not pursue)	q1-a+q2	θ1-b	U+M2
(intervene, do not explain, pursue)	q1-a-r1	-β1-β2	-w-m2-c+M1
(intervene, do not explain, do not pursue)	q1-a+q2-r1	θ2	-w+M2
(do not intervene, explain, pursue)	-r2	-b	-u1-m1-c+M1
(do not intervene, explain, do not pursue)	0	θ1-b	-u1+M2
(do not intervene, do not explain, pursue)	-r2	-β1	-u1-c-m1-m2-w+M1
(do not intervene, do not explain, do not pursue)	0	θ2	-u1-w+M2

Table 6 shows the related risk parameters involved in the income risk matrix.

Table 6. Parameter Definition

symbol	Symbol Description
U	In the intervention of government, there would be a stable income to the community when the parties choose to take the initiative to explain.
q1	Government can enhance the credibility from public due to intervention.
q2	Government can obtain the additional benefits due to public not pursuing in the intervention of government.
a	Government's intervention need to pay the cost.
r1	Governments are subject to public pressure in the negative response from the parties when they take the intervention.
r2	Government's non-intervention cause the public to account for the decline in its credibility
u1	Government's non-intervention hinder the development of Internet charity, damage the public's vital interests.
b	Explanation costs of the parties.
θ1	Parties receive additional benefits from public understandings by explaining .
β1	Parties are damaged their own image from responding negatively as well as accepted social condemnation and public opinion.
β2	In the intervention of the government, parties would accept more serious impact, moral and even legal punishment without explaining.
w	Parties bring the serious loss to the public without explaining.
θ2	Parties obtain the additional benefits from public understanding without explaining.
c	Public's need to pay the cost with pursuing .
M1	Public can obtain the inherent gains with pursuing.
M2	Public can obtain the inherent gains without pursuing .
m1	Public receive the psychological gap due to government's non-intervention.
m2	Public receive the psychological gap due to parties' non-explanation.

Assuming that the proportion of government chooses to active intervene is x, the ratio of non-intervention is (1-x); the ratio of the parties to choose to explain is y, then the ratio is not explained (1-y); the ratio of public choice is Z, the ratio is not (1-z);

The government chooses the benefits of different strategies available as:

$$A_{11} = yz(q_1 - a) + y(1-z)(q_1 - a + q_2) + (1-y)z(q_1 - a - r_1) + (1-y)(1-z)(q_1 - a + q_2 - r_1)$$

$$A_{12} = yz(-r_2) + (1-y)z(-r_2) = -zr_2$$

$$\bar{A}_1 = xA_{11} + (1-x)A_{12}$$

The government chooses to intervene with the dynamic replication equation can be referred as follows:

$$F(x) = \frac{dx}{dt} = x(A_{11} - \bar{A}_1) = x(1-x)(yq_1 - ya + yq_2 + q_1 - a + q_2 - r_1 - zq_1 + za + zr_1 + zr_2) \quad (6)$$

Make $F(x)=0$, so that the balance of the tripartite game is $z = \frac{-r_1 + q_1 - a + q_2}{q_1 - a - r_1 - r_2} + \frac{q_1 - a + q_2}{q_1 - a - r_1 - r_2} y, x=1,0$, by virtue of the last method, which means the government will choose to take the initiative intervention or not to intervene.

Similarly, the benefits of the different strategies are chosen by the parties as follows:

$$B_{11} = xz(-b) + x(1-z)(\theta_1 - b) + (1-x)z(-b) + (1-x)(1-z)(\theta_1 - b)$$

$$B_{12} = xz(-\beta_1 - \beta_2) + x(1-z)\theta_2 + (1-x)z(-\beta_1) + (1-x)(1-z)\theta_2$$

$$\bar{B}_1 = yB_{11} + (1-y)B_{12}$$

Then the replication dynamic equation of the parties interpreting :

$$F(y) = \frac{dy}{dt} = y(B_{11} - \bar{B}_1) = y(1-y)(\theta_1 - b - z\theta_1 + xz\beta_2 + z\beta_1 - \theta_2 + z\theta_2) \quad (7)$$

Make $F(y)=0$ so that the balance point of the three-way game is $x = \frac{\theta_2 - \theta_1 + b}{\beta_2} \frac{1}{z} + \frac{\theta_1 - \theta_2 - \beta_1}{\beta_2}$, $y=1,0$,

by virtue of the last method, which means Parties will be choose to explain and confess the event or not to explain the incident.

Another, the benefits of the different strategies are chosen by the netizens as follows:

$$C_{11} = xy(M_1 - c + U) + x(1-y)(M_1 - c - w - m_2) + (1-x)y(-u_1 - c - m_1 + M_1) + (1-x)(1-y)(-u_1 - c - m_1 - m_2 - w + M_1)$$

$$C_{12} = xy(U + M_2) + x(1-y)(-w + M_2) + (1-x)y(-u_1 + M_2) + (1-x)(1-y)(-u_1 - w + M_2)$$

$$\bar{C}_1 = zC_{11} + (1-z)C_{12}$$

Then netizens choose to pursue with the dynamic replication equation can be referred as follows:

$$F(z) = \frac{dz}{dt} = z(C_{11} - \bar{C}_1) = z(1-z)(-m_1 - c + M_1 + xm_1 - m_2 + ym_2 - M_2) \quad (8)$$

Make $F(z)=0$ so the balance of the tripartite game can be obtained $z=1,0, y = \frac{m_1 + c + m_2 + M_2 - M_1}{m_2} - x \frac{m_1}{m_2}$

,by virtue of the last method, which means netizens will choose to pursue relevant responsible party or not to pursue.

Government-parties-netizens' tripartite dynamic game corresponding to Jacobian matrix in the control phase of public opinion :

$$J = \begin{pmatrix} (1-2x)(yq_1 - ya + yq_2 + q_1 - a + q_2 - r_1 - zq_1 + za + zr_1 + zr_2) & (x-x^2)(q_1 - a + q_2) & (x-x^2)(-q_1 + a + r_1 + r_2) \\ (y-y^2)z\beta_2 & (1-2y)(\theta_1 - b - z\theta_1 + xz\beta_2 + z\beta_1 - \theta_2 + z\theta_2) & (y-y^2)(-\theta_1 + \theta_2 + x\beta_2 + \beta_1) \\ (z-z^2)m_1 & (z-z^2)m_2 & (1-2z)(xm_1 + M_1 - M_2 - m_1 - c - m_2 + ym_2) \end{pmatrix}$$

$$A = yq_1 - ya + yq_2 + q_1 - a + q_2 - r_1 - zq_1 + za + zr_1 + zr_2 \quad B = \theta_1 - b - z\theta_1 + xz\beta_2 + z\beta_1 - \theta_2 + z\theta_2$$

$$\text{Make } C = xm_1 + M_1 - M_2 - m_1 - c - m_2 + ym_2$$

The determinant $\det J$ and the trace $\text{Tr}J$ of the Jacobian matrix are :

$$\text{Tr}J = (1-2x)A + (1-2y)B + (1-2z)C$$

$$\det J = (1-2x)(1-2y)(1-2z)ABC + xyz(1-x)(1-y)(1-z)[(q_1 - a + q_2)(-\theta_1 + x\beta_2 + \beta_1 + \theta_2)m_1 \quad (9)$$

$$+ (-q_1 + a + r_1 + r_2)m_2z\beta_2] - xy(1-x)(1-y)(1-2z)C(q_1 - a + q_2)\beta_2 - yz(1-y)(1-z)$$

$$(1-2x)A(-\theta_1 + x\beta_2 + \beta_1 + \theta_2)m_2 - xz(1-x)(1-z)(1-2y)B(-q_1 + a + r_1 + r_2)m_1$$

According to the balance point analysis results, when the parties choose to explain the strategy $y=1$, regardless of whether the netizens choose to pursue, because $q_1 + q_2 - a > 0$; regardless of whether the government intervention, when the netizens choose to pursue the strategy $z=1$, and if $\beta_1 - b + \beta_2 < 0$, $M_1 - M_2 - c > 0$ then the netizens choose not to pursue the strategy $z=0$, we can immediately and substitute $\theta_1 - b - \theta_2 > 0$, $M_1 - M_2 - c < 0$ into the formula(9), at the same time we can find that when the equilibrium point is $(0,0,0), (0,1,0), (1,0,0), (1,0,1)$, because $\det J < 0$, the determinant is the saddle point and is in the local steady state, which means that the strategy is not enough to make the formation stage of public opinion continue to advance; when the equilibrium point is $(0,0,1), (0,1,1), (1,1,1)$, because $\det J > 0, \text{Tr}J$ uncertainty. Then the equilibrium point is still in the local stability state of the saddle point. When the equilibrium point is $(1,1,0)$ satisfied $\det J > 0, \text{Tr}J < 0$, the three parties' interests are equalized and the steady state is satisfied, then the equilibrium point $(1,1,0)$ is the evolution stabilization point. Indicating that the government chooses to take the initiative to intervene, parties take the explanation and netizens choose not to pursue the strategy for the evolution of stability strategy.

4. CONCLUSION AND PROSPECT

Based on the perspective of individual help on online fundraising model, taking the Rohr event as an example, the dynamic game model is used to analyze the different behavior strategies of participants in the evolution process of online public opinion under the influence of the event. The research shows that the multi-party participants joint in promoting the development of public opinion, "high interaction, low cost" characteristics of the social network platform and the "lack of

supervision, the audit is not strict" drawbacks provide convenience and channels for the recipients releasing the fititious information , In the enterprise's cooperation, this kind of help information with the purpose of marketing will be forwarded and spread in netizens, promote the rapid formation of online public opinion, the exposure of the inside, the questioning and interaction between netizens promote the online public opinion to the next stage of evolution, this time the government and the relevant responsible party will take interpretation to control public relations fluctuations and negative effects, so as to meet the public interest and to restore public confidence in online public welfare. Therefore, this paper argues that, as an important channel for help, the relevant platform should establish a reasonable risk control mechanism, the personal helpers conduct a rigorous review of information on individual help ,to strengthen the authenticity of information, integrity of the screening, and real-time tracking the use of funds. From the source to prevent the occurrence of such incidents. At the same time, the government and charitable organizations should pay attention to individual help and other online public welfare activities in real time, implement social supervision, once the project found fraud, should immediately stop fundraising behavior to achieve donation earmarked and maximize the benefits. For netizens, they should also be rational for providing help, learn to identify the authenticity of help information, pay attention to the implementation of donations to ensure that their kindness to use maximum. In addition, the next step of the article will build the simulation analysis model by digging the case data to explore the evolution process of the online public opinion which affects the different strategies of the subject's behavior in the individual seeking network fundraising mode, so as to provide more targeted and guidance for the construction of the healthy online public ecological .

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The recovery approach to the silent outbreak of Mental Illness in People of African descent.

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ABSTRACT

The rate of suicide and mental illness is on the increases in people from Culturally and Linguistically Diverse communities (CaLD). Is it imperative to discuss the rationale behind the lack of engagement with mental health services from people from CaLD backgrounds. This paper claims to offer an alternative to the current practice that is holistic in nature and addresses the spiritual needs of people from Africa. The evidence used in this article was from studies conducted on cultural beliefs surrounding mental illness and lack of understanding of mental illness by migrants coming from developed countries. Current evidence suggests that there is need for future research to address mental health and its variants as understood by people from the developing countries. As societies from developing countries transition from traditional ways to modern lifestyles, the issues many women and families are facing is the cultural struggle between women's traditional role and their modern traditional role.

INTRODUCTION

The author works in a Mental Health community team for adults aged from 18 to 65 years old. The teams cater for about 800 clients and the majority of them are Caucasians from various backgrounds. Of the 50 members only 2 are African. These comprise of a social worker and a Registered Mental Health nurse, who happens to be the author. The target audience for the Recovery education resource is members of staff including management. Although Africa is a continent, most clinicians and lay people tend to view this diverse population as a homogenous society. However, most of the cultures and subcultures share some similarities. The author wanted to explore the meaning of recovery from her own Zimbabwean subculture and from a mental health perspective. Having had the lived experience of immigrating from a developing county to United Kingdom then Australia, the author still feels there is not enough known in mental health practice about immigrating coupled with mental illness and recovery from the eyes of the immigrant. Evidence of the importance of lived experience of mental health challenges is discussed by (Happell et al., 2015) and the author wishes to dispel misconceptions with regards to the culture of people from African countries who access services.

The author thought it would be a good opportunity to discuss cultural competency and educate her workmates about her culture and how she has embraced the recovery model without compromising on her beliefs. Race, culture and ethnicity can be sensitive issues to talk about so she wanted colleagues to feel free to ask her questions they otherwise would not be comfortable asking ethnic minorities mental health consumers. The author opted for an oral presentation in a casual format

There has been literature and journals written about ethnic minorities but it does not cover the core beliefs they hold about mental health in African countries and their religion. She thought she could create a dialogue within her colleague about her beliefs and how this impacts on medication concordance and recovery. In Western Australia the number of ethnic minorities accessing services is still small but it's on the increase and by empowering clinicians with the knowledge about religion and culture they might find it easier to raise the subjects with mental health consumers. They will be more likely to support consumers on their recovery journey if they understand what illness, cause and recovery mean to them.

(Drummond, Mizan, Brocx, & Wright, 2011) discusses the stigma linked to certain illness within the African cultures, suspicions about the Western medications and how this can hinder immigrants

from engaging with mental health services. The author grew in a society that viewed mental challenges as only experienced by people of low socio-economic status and was caused by witchcraft. It's through studying mental health nursing that she shifted her way of thinking but from speaking from fellow countrymen such beliefs are still highly held. That being said, to be cured of such mental challenges one has to go Church and have church elders pray for them and these beliefs are still followed in many African immigrant households in Australia. Religion and spirituality are of paramount importance in our culture.

Most believe when one has gone through mental challenges and they get better God has intervened. This is a challenge to clinicians who might otherwise be unaware of such practices as once God has intervened there is no need to engage in services that are shunned by the community or take western medications. This could lead to consumers not engaging or being avoidant of clinicians and lying about taking medications. This however could be likened to understanding recovery in the context of 'recovering from' that (De Vecchi, Kenny, & Kidd, 2015) explains as a biomedical classification of treating illnesses or getting rid of symptoms.

(Carlisle, 2015) realised from her research that clinicians were viewed as not interested in assisting consumers meet their spiritual needs or within their professional scope of practice. (Harris et al., 2015) states that despite the role of spirituality and religion some clinicians are not comfortable discussing the above with clients in fear that it would strengthen religious delusions in consumers. While there is some truth to this (Milner & Khawaja, 2010) advocates for clinicians to have a strong understanding of African Refugee's background, dilemmas and psychosocial stressors. Most of the African immigrants' experience acculturation stressors and these include disintegration of social and cultural norms and loss of social support from extended families. (Ho et al., 2016) concluded that spiritual experiences may be seen as signs and symptoms of mental challenges and this kept consumers from discussing religion with clinicians thereby neglecting a potential positive coping mechanism. (Harris et al., 2010) discovered that amongst mental health consumers, the more religious ones describe having a better quality of life, positive outcomes and better adaptive coping skills. The author wanted to equip her team members with coping resources they could use when engaging with some African consumers who subscribe to the same values and beliefs. The above highlight why the author chose to speak about culture, religion and spirituality and how understanding some of these confusing aspects can help them in dealing with consumers from different backgrounds as them. With the management present during the presentation the author hoped they would talk to stakeholders about liaising with African community groups about offering support to some African immigrants who are deemed as needing support integrating into the Australian culture whilst staying true to theirs

THE NEED FOR MENTAL HEALTH CULTURAL COMPETENCY

Having come from a country that believes that mental illness is caused by witchcraft the author has had to do practice a lot self-awareness. (Jack, 2008) describes self-awareness as the ability to understand our own emotions, strengths and weaknesses and the impact of our their behaviours in adverse scenarios. The author imagines how some discussions about religion might be anxiety provoking for clinicians who do not share the same sentiments about religion or have their own prejudices. The author is a non-practicing religious person and when she goes through rough patches in her life she calls upon God for help and believes that God answers her prayers. The author believes her faith aids her recovery journey as described by (Harris et al., 2015) This is a very difficult concept to understand for some clinicians who are not religious. Elouo et al (2009) explains how some communities around the world attribute the cause of mental illness to misfortune, supernatural causes and witchcraft. This belief contributes to the stigma of mental health in ethnic minorities. Depression is viewed as a manifestation of possession of evil spirits that has entered their body and is controlling them. An understanding of these beliefs will help health departments plan and implement how they are how to deliver care in a culturally sensitive manner.

I have gone through some trying times and could have been depressed at some point but in my culture there is no word for depression in my language so it was difficult to get help from people from the same background. (Benson, Haris, & Saaid, 2010) address what the author is trying to explain that most African languages do not have words for what clinicians use to describe mental health symptoms. They go on to explain how these symptoms may be described as 'high blood pressure or BP'. This is easily understood across many African countries as very stressful situations, trying times and a crisis. Different mental health illnesses are not endorsed and are often interpreted in idiom of distress. The expression of emotion may be viewed as shameful hence mood disturbance is not verbalized. Lawati et al, (2002) concluded that western cultures have a tendency to 'psychologise' distress which is in contrast to non-western culture where distress is 'somatised.'

I imagined myself when I first immigrated and the stress it brought having to adapt to another culture whilst staying true to myself. That can be very hard for an ethnic minority who has a mental illness. The stigma attached to being admitted in a mental health hospital is twice-fold compared to that Westerners. The community may shun you and you become the subject of talk. The religious belief that when unwell God intervenes and heals you is still my source of strength. The thought of the community knowing that one is accessing mental health services is daunting.

My experience of working in Mental Health Services taught me that there is place for medications and recovery is a journey not being cured. The consumer will need to feel supported in meeting their spiritual needs despite what the clinicians believe in. There is still a gap in practice about meeting the spiritual needs of consumers especially when they are psychotic. Clinicians will have to be careful in assessing whether their religions are not part of their symptomology and entwined in their delusions. Some of the religious beliefs held in Africa or other parts of the worlds are symptoms of mental health conditions. Family assessment and involvement might be useful in explaining cultural beliefs and traditions. Clinicians will have to be non-judgmental as most people from the author's culture would not openly discuss their religious beliefs and traditions if they are sometimes classified as symptoms of mental illness. For example, 'some might believe that God speaks to them and they have conversations with God but this could be an auditory hallucination or delusion in Mental health.

THE ROLE OF MENTAL HEALTH SERVICES IN ADVOCATION FOR BETTER UPTAKE OF RECOVERY PRINCIPLES

This part of the paper, the author uses an acronym (SPICES) Spiritual, Physical, Intellectual, Cultural, Emotional and Social in order to cover all aspects of a being and be holistic. Each aspect of the acronym is explored with regards to how mental health services can advocate for recovery uptake in African immigrants who are also mental health consumers.

Spiritual

As discussed above spirituality plays a huge part in the lives of many African immigrants and is a deep source of strength, courage, wisdom when they are faced with difficult situations. (Mahmood, Moore, Savic, & Chur-Hansen, 2016) highlights that in the Sudanese culture people do not go to see a special person for emotional distress, grief and as these are seen as part of life so there is resistance within the community towards medicalisation of emotional distress. The clinician's role could be supporting consumers in doing what works for them and this could be organizing with family to talk to church elders who are sometimes involved in praying for the consumer. With the consent of the consumer and their family the service could establish partnerships with church elders from the same ethnic background to visit clients and pray with them. The nurses could support the consumer by letting the consumer teach clinicians about their faith and significant support systems. (Slade, 2011) explains how nurses can break boundaries and how this can help the relationship between nurse and consumer by something as simple as having clinicians talk about their own spiritual beliefs and show a level of humility.

Physical

The role of the nurse is to assist the consumer in weighing their options about health behaviours such as medications management and help them project foreseeable outcomes of different choices as advised by (Carlisle, 2015). The consumer from an ethnic minority background might decide to stop taking their medications because they believe God had healed them. The clinicians could support the consumer in making that decision and enable them to take positive risks. Psycho-education would be paramount in situations like this as the consumer would have to be well educated on their mental health condition, the benefits of taking their medications and the likely result of not including support systems for when they feel they are deteriorating. Family could be educated on the mental health condition and symptoms to watch out for. The clinician would enable the consumer make informed decisions that affect their recovery journey.

Intellectually

Most consumers still believe clinicians are experts at mental health illnesses instead of their lived experiences as discovered by (Topor et al., 2006) that consumers had greater confidence in what clinicians said as opposed to lay people. Most immigrants from Africa come from cultures that do not recognize mental health symptoms and do not have word for them. Consumers look up to clinicians for knowledge of different mental health challenges they might have experienced so nurses could play the role of an educator. By educating the consumer about mental health illnesses, symptoms, triggers, medication, and services available. This will not only empower the consumer but equip them to become knowledgeable partners in care.

Cultural

Culture is a way of life and helps people make sense of surroundings, behavior and values. (Hammond 1978) advocated for clinicians to learn about consumer's belief systems in order to show respect and also acknowledge that the consumer is the expert in their own culture. It shows that the clinician is not dealing with the consumer from their own ethnocentric beliefs. This calls for clinicians to be creative in their approach such as using interventions that may exist outside their service/team and these could come from the consumer as suggested by (Keeling & McQuarrie, 2014). An example that comes to mind could be in some cultures witch-doctors/ give sick people water mixed Epsom salts and herbs to spray in their rooms to get rid of evil spirits. Such activities could be aimed at meeting specific needs of a consumer only understood by the consumer

Emotional

The emotional aspects of a being could be regarded as how they view themselves and their worth. Most immigrants already struggle with issues of racism and see themselves as inferior to their white counterparts possibly due to colonization. Giving them a purpose could aid in their journey to recovery. (Trossman, 2011) speaks highly of a service that offers 3 month contracts to consumers and those who do well are given jobs in hospitals. She speaks of how mental health nurses can support those who are capable of working access work in not so stressful environments. Nurses could champion this cause and make referrals to such organisations and be there as consumers' transition from not working to having to get up and go to work. One of the roles of the mental health nurses in recovery is supporting consumers set goals and assist them in breaking down the tasks so they are manageable and (van Langen, Beentjes, van Gaal, Nijhuis-van der Sanden, & Goossens, 2016) discovered consumers appreciated having someone help them break down goals to manageable tasks such as the goal of having paid employment

Social

(Khawaja, McCarthy, Braddock, & Dunne, 2013) concluded that many clinicians do not have an understanding of migration and how it affects mental health of refugees. Africa culture tends to be family orientated including having extended family. Immigration has meant that some of these family circles are broken and some consumers might find themselves isolated. In some subcultures some groups might have community elders who may assist the consumer in socio cultural issues. With consent from consumers, clinicians could support them meet their social needs by reaching

out to the elders who may also act as appointed persons as stated by (Gibson, 2015) as he summarised the new Mental Health Act 2014 which identifies that the next of kin might not necessarily be the chosen appointed person to be involved in the consumer's care. Relationships, family members and social support systems all have a part to play to play in supporting people on their recovery journey as insisted by (Tilley & Cowan, 2011) when discussing the common agreed essentials to promoting recovery. The nurses have a role to advocate for the extension of such services for their consumers.

CONCLUSION

This paper has found there is limited knowledge of the role of spirituality and religion in mental health especially in people from cultural and linguistically diverse populations.

The literature search on mental health in migrant communities yields a small result. There is need to conduct more research on mental illness in culturally and linguistically diverse populations. Refugees and asylum seekers are particularly more vulnerable to mental health but there is lack of specialized mental health care in Australia. This paper does not address the psychosocial factors that could be contributing to the increased rate of mental illness. Access to culturally tailored mental health service should be part of the mental health agenda in Australia. Further research is imperative to ascertain preventative measures that can be taken to promote mental health in culturally and linguistically diverse populations.

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The new development of qualitative research approach in language teaching and learning

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ABSTRACT

From a language teaching and learning perspective, great developments have taken place in the field of qualitative research since the beginning of the millennium, which is not only a period of valuable consolidation but also with signs of new avenues opening up. According to John W. Creswell, the qualitative research has been mainly classified into five approaches. In the area of language teaching and learning area, the qualitative research methods used have a remarkable growth. And this article adopts three of them (narrative studies, ethnography and case study) to illustrate how to do a practical research in the qualitative research method with a typical corresponding sample study chosen from the TESOL Quarterly because of its applied linguistics and educational background context, as a result of which may give some inspirations for the development of qualitative research in the applied linguistics in the future.

1. QUALITATIVE RESEARCH

When it comes to qualitative research, Holliday (2007:1) notes that it is traditional to begin by distinguishing qualitative research from quantitative research. And for Frederick Erickson, qualitative inquiry seeks to discover and to describe narratively what particular people do in their everyday lives and what their actions mean to them. It identifies meaning-relevant kinds of things in the world—kinds of people, kinds of actions, kinds of beliefs and interests—focusing on differences in forms of things that make a difference for meaning.

‘Qualitative research’, claimed Lazaraton (2003a) in a review of evaluative criteria, ‘has come of age in applied linguistics’. In the thirteen years since her own groundbreaking assessment enough has changed to warrant this claim. Qualitative research has opened dimensions of insight into the processes of language teaching and learning that were not even discernible on the horizon twenty years ago, and developments in the new millennium promise even richer understandings in the future. And in the field of applied linguistics, the section of language learning and teaching, is using increasingly sophisticated methodological approaches to address a growing number of urgent real-world problems. Many researchers have done a lot of research in this field, they have carefully talked about the trends and the publication of qualitative articles in some learning and teaching journals.

2. SAMPLE COLLECTION

Language teaching and learning journals appear to be far more open to the publication of qualitative data-based research than they were in the early 1990s. (Phil Benson 2009) after a decade in which reliance on qualitative methods were questioned, Magman (2005) argued, “our discipline now embraces a variety of qualitative methods as accepted or even preferred, methods of inquiry.” Published surveys of journal articles lend some support to this view, like Language Learning, Studies in Second Language Acquisition and TESOL Quarterly.

For this study, I’ve chosen TESOL Quarterly as a research sample. TESOL Quarterly is a quarterly peer-reviewed academic journal published on behalf of TESOL International Association. It covers English language teaching and learning and standard English as a second dialect, including articles on the psychology and sociology of language learning and teaching, professional preparation, curriculum development, and testing and evaluation. According to the Journal Citation Reports, the journal has a 2013 impact factor of 1.000, ranking it 41st out of 169 journals in the

category "Linguistics" and 64th out of 219 journals in the category "Education & Educational Research". Considering the research question of this article, *TESOL Quarterly* is a very good example that combines the language teaching and learning, linguistics and the research methodology.

In recent years, qualitative research has experienced great development across the worldwide. Qualitative research has been widely used in applied linguistics and it has won fruitful research results. As Lazaraton (2003a) claimed in a review 'Qualitative research has come of age in applied linguistics.' And Benson et al also think (2009) that Language teaching and learning journals also appears to be far more open to the publication of qualitative data-based studies than they were in the early 1990s. Published surveys of journal articles lend some support to the view. Surveying the contents of *Language Learning*, *MLJ*, *Studies in Second Language Acquisition*, and *TESOL Quarterly* from 1991 to 1997, Lazaraton (2002) found that 10% of the data-based articles used qualitative approaches. Extending the survey up to 2001, Lazaraton (2005) found that this figure had risen to 14%, with the proportion of qualitative articles reaching 40% in TQ. If you still have doubts about this statistics, Richards (2009) also put *TESOL Quarterly* into the "more than 10% qualitative research" journals' camping. These results explicitly explain the reason why I will choose *TESOL Quarterly* as the research sample for this paper, because it is always a great player in the stage of qualitative studies in the language teaching and learning area, even we could call it a 'hero' of qualitative research in the applied linguistics.

3. THEORETICAL BASIS

According to the book written by John W. Creswell and published in 2013 named *QUALITATIVE INQUIRY & RESEARCH DESIGN: Choosing Among Five Approaches*: He introduced five different qualitative study approaches, which is the theoretical base of this paper. And they are as follows: narrative research; phenomenological research; grounded theory research; ethnography research; case studies.

Narrative research has many forms, uses a variety of analytic practices, and is rooted in different social and humanities disciplines. A phenomenological study describes the common meaning for several individuals of their lived experiences of a concept or a phenomenon. The grounded theory is a qualitative research design in which the inquirer generates a general explanation (a theory) of a process, an action, or an interaction shaped by the views of a large number of participants. An ethnography focuses on an entire culture-sharing group in which the researcher describes and interprets the shared and learned patterns of values, behaviors, beliefs, and language of a culture-sharing group. Case study is a type of design in qualitative research that may be an object of study, as well as a product of the inquiry. Case study research is a qualitative approach in which the investigator explores a real life, contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information (e.g., observations, interviews, audiovisual material, and documents and reports), and reports a case description and case themes. Table 1 shows the contrast characteristics of these five qualitative approaches:

Table 1. Contrasting Characteristics of Five Qualitative Approaches

Characteristics	Narrative Research	Phenomenology	Grounded Theory	Ethnography	Case Study
Focus	Exploring the life of an individual	Understanding the essence of the experience	Developing a theory grounded in data from the field	Describing and interpreting a culture-sharing group	Developing an in-depth description and analysis of a case or multiple cases
Type of Problem Best Suited for Design	Needing to tell stories of individual experiences	Needing to describe the essence of a lived phenomenon	Grounding a theory in the views of participants	Describing and interpreting the shared patterns of culture of a group	Providing an in-depth understanding of a case or cases
Discipline Background	Drawing from the humanities including anthropology, literature, history, psychology, and sociology	Drawing from philosophy, psychology, and education	Drawing from sociology	Drawing from anthropology and sociology	Drawing from psychology, law, political science, and medicine
Unit of Analysis	Studying one or more individuals	Studying several individuals who have shared the experience	Studying a process, an action, or an interaction involving many individuals	Studying a group that shares the same culture	Studying an event, a program, an activity, or more than one individual

Characteristics	Narrative Research	Phenomenology	Grounded Theory	Ethnography	Case Study
Data Collection Forms	Using primarily interviews and documents	Using primarily interviews with individuals, although documents, observations, and art may also be considered	Using primarily interviews with 20-60 individuals	Using primarily observations and interviews, but perhaps collecting other sources during extended time in field	Using multiple sources, such as interviews, observations, documents, and artifacts
Data Analysis Strategies	Analyzing data for stories, "restorying" stories, and developing themes, often using a chronology	Analyzing data for significant statements, meaning units, textual and structural description, and description of the "essence"	Analyzing data through open coding, axial coding, and selective coding	Analyzing data through description of the culture-sharing group and themes about the group	Analyzing data through description of the case and themes of the case as well as cross-case themes
Written Report	Developing a narrative about the stories of an individual's life	Describing the "essence" of the experience	Generating a theory illustrated in a figure	Describing how a culture-sharing group works	Developing a detailed analysis of one or more cases

After careful reading through the articles of *TESOL Quarterly* in the recent years, I have found that the five qualitative research methods don't have an equal role to play in this journal. What's more, I am not alone to think in this way. Other researchers also hold the same opinion as I do. However, while phenomenology and grounded theory feature in qualitative approaches generally, they do not loom large in research in language teaching and introspective methods are as likely to be quantitative as qualitative (Richard 2009) the percentage of phenomenological study and the grounded theory research is very low in the published articles. Considering the definitions of these five approaches, these two approaches are quite difficult to put into practice.

So in this article, I have chosen the narrative studies, the ethnography research and also the case study as research focus. For each qualitative research approach, I have chosen a sample article to

illustrate how this kind of approach is used in the practical study in the section of language teaching and learning section.

4. THREE SAMPLE STUDIES

4.1 A Narrative Study

A.Suresh Canagarajah (2012) is a good example of a typical narrative study in language learning and teaching in TESOL Quarterly. The title of this article is *Teacher Development in a Global Profession: An Autoethnography*, which has clearly pointed out that the research methodology this article chooses. This article was published in TESOL Quarterly in 2012. According to Creswell's classification of the types of qualitative study, this article belongs to narrative study. In this article, the author represents the ways in which he negotiated the differing teaching practices and professional cultures of the periphery and the center in an effort to develop a strategic professional identity. Through his journey of professionalization, he talks about his own experiences like some vivid and lived stories of being an English teacher in Sri Lanka from 1984 to 2012, when he has become a professor in Pennsylvania State University. And narrative also plays a very important role in the procedures of analyzing the stories told.

In order to conduct a narrative study, the author has followed the procedures below:

Determine if the research problem or question best fits narrative research. Narrative research is best for capturing the detailed stories or life experiences of a single individual or the lives of a small number of individuals. In this ethnographic self-reconstruction, the author represents the ways in which he negotiated the differing teaching practices and professional cultures of the periphery and the center in an effort to develop a strategic professional identity. Based on the author's experience, he developed a perspective on more egalitarian and dialogical relationships between global teaching communities in TESOL and advocate for professional identities of English teaching.

Select one or more individuals who have stories or life experiences to tell, and spend considerable time with them gathering their stories through multiple types of information. Considering the author's professional experiences are very complex, the author chose himself as the research participants. He wrote his stories in journals and diaries. And for this article, the journals and diaries become a very important part of data analysis.

Consider how the collection of the data and their recording can take different shapes. In this article, writing is not only the means of disseminating one's knowledge and experiences. And the author admitted that "there is an emphasis on the creative sources of writing, especially narrative, for generating, recording, and analyzing data. Many forms of written artifacts go into the construction of my narrative: books and articles I read, institutional reports and correspondence about my professional performance." And these different data collection, which as the author hoped "generate additional comparisons and interpretations from alternate perspectives."

Collect information about the context of these stories. Narrative researchers situate individual stories within participants' personal experiences (their jobs, their homes), their culture (racial or ethnic), and their historical contexts (time and place). The author said in the conclusion of this article: "Perhaps it is the boundary-crossing work of transient, migrant, and refugee teachers like me that has led to the dominant paradigms being reconstructed in our profession." At the beginning, the author worked as an English teacher in Sri Lanka in 1984. Recognizing his limitations in the professional development, he went to America to further his studies of an educational doctor. Then he went back to his homeland. Unfortunately, due to the civil war at that time, he had to run away from his motherland as a refugee. And he came back to the USA, he works as a professor and teaches in the departments of English and Applied Linguistics at Penn State. So this research article includes all the elements aforementioned.

Analyze the participants' stories. The researcher may take an active role and "restory" the stories into a framework that makes sense. Restorying is the process of reorganizing the stories into some general type of framework. This framework may consist of gathering stories, analyzing them for key elements of the story (e.g. time, place, plot, and scene), and then rewriting the stories to place them within a chronological sequence.

Collaborate with participants by actively involving them in the research. The form of research is conducted and represented from the point view of the self. So the participant is definitely involved in this research.

Given these procedures and the characteristics of narrative research, narrative research is a challenging approach to use. The researcher needs to collect extensive information about the participant, and needs to have a clear understanding of the context of the individual's life. It takes a keen eye to identify in the source material that gathers the particular stories to capture the individual's experiences. Multiple issues arise in the collecting, analyzing, and telling of individual stories. Apparently, in this autoethnography research, the methodology is quite different from the traditional positivist research traditions that perceive anything based on the self as subjective and distorting valid knowledge claims, autoethnography values the self as a rich repository of experiences and perspectives. And in order to make the analysis explicit, the author also adopts an analytical autoethnography. And finally we can conclude that one can articulate one's own experiences, rather than letting others represent them. This is especially important for members of marginalized communities who lack the resources and publishing outlets to articulate their knowledge and interests. Their knowledge is often presented by outsiders according to outsiders' perspectives. Take this article for example, autoethnography is a valuable form of knowledge construction in the language teaching and learning field.

4.2. An Ethnographic Study

For the ethnography study, I have chosen an article named *Addressing racialized multicultural discourses in an EAP textbook: working toward a critical pedagogies approach*. The article was published in TESOL Quarterly in March, 2016 and it is a typical example of how ethnography research method is used in applied linguistics area. The author first presents the chapter's passages and then describes how the discourses were initially taken up by the participants. A conversation between the instructor and the author in which the instructor shared a racializing experience is then featured providing the context for her subsequent approach in which she revisited the reading with students. The author examines the classroom interactions with two questions in mind: "How did the instructor's critical pedagogies approach work to mediate the racialized representations in the chapter? Did this approach facilitate more meaningful dialogical engagements enabling the students to develop their academic literacies?"

In order to conduct an ethnography study, the author has followed the procedures bellow:

Ethnography focus on developing a complex, complete description of the culture of a group, a culture-sharing group. If a researcher wants to do an ethnography research, he or she should first determine if ethnography is the most appropriate design to use to study the research problem and identify and locate a culture-sharing group to study. For this article, the racialized multicultural discourses emerge in the TESOL classroom via textbook representations of immigrant success stories and perceived racial and cultural differences among students. Although liberal multicultural discourses may be well intentioned, these discourses warrant closer examination for the ways in which they can essentialize cultural identities and enact power dynamics of who is defining and who is being defined. Drawing on an ethnographic English for academic purposes (EAP) classroom case study, and with the aim of bridging the gap between critical theories and actual classroom practices, this article explores the approaches an instructor implemented with students in addressing such discourses in an EAP textbook chapter. The researcher looks for patterns of social organization (social networks) and ideational systems (worldview, ideas) (Wolcott, 2008a). This research was

conducted in an EAP classroom, in an intensive English program at a Canadian public university. This means that the culture-sharing group has been intact and interacting for long enough to develop discernible working patterns. The ethnographic research involved observing the instructor's classes for 11 months (covering the four terms) and included audio- and video-recording her classes, interviews with her and the students, numerous research discussion meetings with the instructor (totaling 18 during the study), classroom observation field notes, and curriculum material analysis. The data presented here are drawn from two classroom lessons during this summer term class and from one of the meetings with the instructor. In addition, theory plays an important role in focusing the researcher's attention when conducting an ethnography. Using the theory and looking for patterns of a culture-sharing group involves engaging in extensive fieldwork, collecting data primarily through interviews, observations, symbols, artifacts, and many diverse sources of data. For example, ethnographers start with a theory—a broad explanation as to what they hope to find—drawn from cognitive science to understand ideas and beliefs, or from materialist theories. When it comes to the theory issues, the author talked about the liberal and critical multiculturalism, and also the critical pedagogies approach in language learning and teaching.

In an analysis of this data, the researcher relies on the participants' views as an insider emic perspective and reports them in verbatim quotes, and then synthesizes the data filtering it through the researchers' etic scientific perspective to develop an overall cultural interpretation. Inasmuch as social actors take up discourses differently partly based on their inscribed personal experiences, or their "historical bodies", the analysis of the instructor's teaching approaches toward the reading during the two class lessons takes into account her own inscribed experiences—both pedagogical and personal—that she shared in the research meeting featured below, which was part of the overall analysis. And in analyzing the classroom interactions, and the author's role as a researcher engaged in mediated collaborative actions that influenced ensuing teaching approaches, the author has employed a discourse analysis approach which holds that "the relationship of text to text, language to language, is not a direct relationship but is always mediated by the actions of social actors". The author's reading of the chapter's cultural representations and the participants' ensuing classroom discourses should also be seen as stemming in part from his lived experiences frequently encountering racialized discourses. This analysis results in an understanding of how the culture-sharing group works, the essence of how it functions, the group's way of life. The analytical aim of this article is to examine these approaches in the ways in which they engaged with the racialized discourses and the resulting pathways of the participants' meaning-making in their particular discursive actions.

4.3. A Case Study

For the case study approach, I have chosen an article named *Imagined Community Falling Apart: A Case Study on the Transformation of Professional Identities of Novice ESOL Teachers in China*. The article was published in TESOL Quarterly in 2012 and it is a typical example of case study applied in the area of language teaching and learning. This qualitative case study described a case study on the transformation of professional identities of novice ESOL teachers in China.

In order to conduct an ethnography study, the author has followed the procedures bellow: Case study research begins with the identification of a specific *case*. The *intent* of conducting the case study is also important. As many novice teachers experience a reality shock during the transition from teacher education programs to the first years of teaching considering the unpredictable and dynamic nature of authentic educational contexts, and these conditions have a great influence on teachers' behavior and beliefs, the researcher tries to find out how this relationship is constructed and the possibilities for the future during the transition.

A hallmark of a good qualitative case study is that it presents an in-depth understanding and description of the case. The themes or issues might be organized into a *chronology* by the researcher, analyzed *across cases* for similarities and differences among the cases, or presented as a

theoretical model. This article reports a 3-year longitudinal case study of the transformation of the professional identities of four Chinese teachers during the first years of teaching in K-12 schools in China. The case study began with a detailed description of the differences between the imagined identity and practiced identity, and then the author explained that the social cognition representation theory is used as a conceptual framework. After all this information proposed, the author raised the two research questions: the first question is “What were the novice teacher’s imagined identities like at the start of their teaching?” And the second question is “How did their imagined identities transform into practiced identities in the first years of teaching?” Then it comes to the participants chosen for this research. Four female participants - Ingrid, Carol, Fiona, and Aurora (pseudonyms), all 22 years of age when they became teachers - were supervised as fourth-year students in the teaching practicum of a BA program for ESOL teacher education at a normal university in Beijing.

The selection of how to approach the *data analysis* in a case study will differ. In this article, data were collected through the multiple sources of information, such as nonstructured interviews, observations and observation notes, participants’ journals and observation sessions and its record materials. Then the author administered three rounds of data analysis. Firstly, the author reads and rereads all the data and entered a code. Secondly, existing codes’ relationships were more rigorously studied and been classified into tentative categories and subcategories. Thirdly, the data analysis led to the reorganization of the tentative categorization by which the final conceptual framework was constructed.

Case studies often end with conclusions formed by the researcher about the overall meaning derived from the case(s). When it comes to the results and discussion, the author outlines how the four participants’ imagined identities transformed into practiced identities in the novice stage. The author gives a very careful and detailed presentation about the discussion notes between the author and participants and give an analysis after each sample.

Finally, for the implications and conclusions, the findings suggest that novice teacher’s cue-based or exemplar-based imagined identities may transform into rule-based or schema-based practiced identities as mediated by the influences of the institutional contexts of school and dynamic educational contexts and the institutional pressures seem to cause the imagined identities collapse or even be negatively replaced, but a teacher’s perseverance and agency in keeping to his or her imagined identity may ultimately determine the positive evolution of that identity.

In this case study, the author follows Lincoln and Guba’s (1985) case study structure—the problem, the context, the issues, and the “lessons learned”. It also adds its own personal perspective by presenting information about the extent of our data collection and data analysis. The author identified the case for the study. This “case” was a bounded system, bounded by time (three-year of data collection) and four novice teachers that come from the same normal university of Beijing but teaching in different places during this research. One of the challenges inherent in qualitative case study development is that the researcher must identify the case. The case selected may be broad in scope or narrow in scope. The case study researcher must decide which bounded system to study, recognizing that several might be possible candidates for this selection and realizing that either the case itself or an issue, which a case or cases are selected to illustrate, is worthy of study. The researcher must consider whether to study a single case or multiple cases.

Selecting the case requires that the researcher establish a rationale for his or her purposeful sampling strategy for selecting the case and for gathering information about the case. Having enough information to present an in-depth picture of the case limits the value of some case studies. Deciding the “boundaries” of a case—how it might be constrained in terms of time, events, and processes—may be challenging. Some case studies may not have clean beginning and ending points, and the researcher will need to set boundaries that adequately surround the case.

5. CONCLUSION

A useful perspective to begin the process of differentiating among the five approaches is to assess the central purpose or focus of each approach. As shown in the figure, the focus of a narrative is on the life of an individual, and the focus of a phenomenology is on a concept or phenomenon and the “essence” of the lived experiences of persons about that phenomenon. In grounded theory, the aim is to develop a theory, whereas in ethnography, it is to describe a culture-sharing group. In a case study, a specific case is examined, often with the intent of examining an issue with the case illustrating the complexity of the issue. Turning to the five studies, the foci of the approaches become more evident.

As Richards concluded, great developments have taken place since the beginning of the new millennium: the broader field of qualitative research has been characterized by a less confrontational orientation, with attention shifting to practical issues and away from more theoretical debates. This is a welcome development in this field. From the samples above, it is reassuring to see a pragmatic approach gaining ground, as a result of which, it will be a great improvement of the development of researching methods in the applied linguistics area.

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