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Editorial

Journal of Social and Development Sciences (JSDS) is a scholarly journal deals with the disciplines of social and development sciences. JSDS publishes research work that meaningfully contributes towards theoretical bases of contemporary developments in society, business and related disciplines. The work submitted for publication consideration in JSDS should address empirical and theoretical contributions in the subjects related to scope of the journal in particular and allied theories and practices in general. Scope of JSDS includes: sociology, psychology, anthropology, economics, political science, international relations, linguistics, history, public relations, hospitality & tourism and project management. Author(s) should declare that work submitted to the journal is original, not under consideration for publication by another journal, and that all listed authors approve its submission to JSDS. It is JSDS policy to welcome submissions for consideration, which are original, and not under consideration for publication by another journal at the same time. Author (s) can submit: Research Paper, Conceptual Paper, Case Studies and Book Review. The current issue of JSDS consists of papers of scholars from South Africa, Lesotho, Australia, Vietnam, Tanzania and Indonesia. Understanding political will and public corruption, climate change: economic growth and development, The Library of Rudolf Steiner, demand of urban consumers for safe pork, access to communication channels and use of family planning among women and export of small medium enterprises are some of the major practices and concepts examined in these studies. Journal received research submission related to all aspects of major themes and tracks. All the submitted papers were first assessed, by the editorial team for relevance and originality of the work and blindly peer-reviewed by the external reviewers depending on the subject matter of the paper. After the rigorous peer-review process, the submitted papers were selected based on originality, significance, and clarity of the purpose. Current issue will therefore be a unique offer, where scholars will be able to appreciate the latest results in their field of expertise, and to acquire additional knowledge in other relevant fields.

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PAPERS

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Understanding Political Will and Public Corruption in South Africa

[1]Harris Maduku, [2]Andrew Osehi, Enaifoghe
[1]Department of Economics, University of Zululand, KwaDlagenzwa, South Africa
[2]Department of Public Administration, University of Zululand, KwaDlagenzwa, South Africa
madhukuharris@gmail.com,hdhuku@gmail.com,andyransey@gmail.com

Abstract: The objective of this paper is to extensively analyse if there is adequate political will to eradicate corruption in South Africa using existing literature. There has been a huge increase in the level of attention paid to corruption, measures to curb it as well as its socio-economic consequences. In South Africa, corruption has been at the focal point of development an obstruction and impediment of genuine improvement in the general public service delivery. South Africa's public procurement system has been filled with corrupt practices, making the country to be one of the most degenerate on the continent of Africa. In the event that Africa is to be spared from this disease, the endemic presence of corrupt practices must be managed appropriately by the executive of the state. This paper addressed the concept of political will and normalized corruption in South Africa and proposed a route forward for the coveted change. We feel that corruption should be classified in the same category as crimes like treason, murder and rape and heavy sentences have to accompany corruption as a crime. A qualitative method was adopted in this study.

Keywords: *Corruption; Economic development; political will; institutionalized and normalized corruption*

1. Introduction

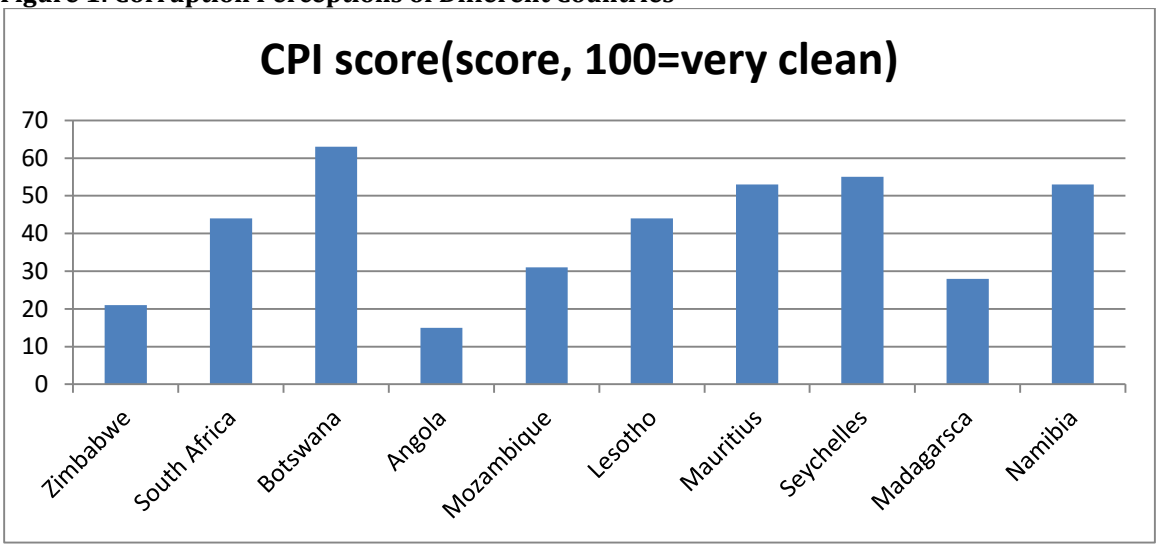
Corruption is considered as an adversary of economic development as a result of its different indecencies yet it has turned out to be so far reaching in South Africa. Corruption comes in two structures, the first is the alleged 'big-time' corruption – This is when public authorities twist the guidelines to channel support to relatives, companions and sidekicks, or acknowledge bribes; also when private specialists reward public official to give them undue favorable circumstances or undue rights (Guillermo, 1996). The second type of corruption is the 'Quiet corruption (OECD, 2014), this type of corruption happens when public workers intentionally disregard their obligations to give public administrations or products. The objective of this paper is to analyze the extent of political will and assess the level of success in combatting corruption in South Africa. Political will has been found as the missing link in most corrupt countries globally the jacket which South Africa fits well. The country is ranked one of the highest corrupt countries in Africa according to Transparency International (TI) 2015 report. Rabin, (2011) defines political will as the intention or desires specifically the firm intention or commitment on the part of government leadership to implement a policy that is practical to tame down corruption. World over countries have unanimously agreed that corruption has huge socio-economic costs that impact directly on poverty and inequality. This then took independent countries and blocks like the African Union (AU) and United Nations (UN) to develop charters with their member countries signing indicating their commitments to work with these bodies to end the pandemic. Corruption has been defined as the inappropriate use or abuse of power to privately benefit from circumstances that were meant to benefit the majority of the society.

Corruption is found both in private and public sector and can come in the form of maladministration of state or company resources for personal gain, misappropriation of resources and even misuse of funds (Merriam-Webster, 2006; Pearsall and Hanks, 2006). Although it is an agreed fact that corruption has brought serious socio-economic consequences to many economies, most countries are still moving very slow in combatting corruption. Statistics released by Transparency International (TI) and Afrobarometer, (2015) institutions responsible for computing the Corruption Perception Index (CPI) shows that no country is free from corruption but the extent differs from one country to another. Transparency International calculates perceived corruption levels of public sectors of 180 countries globally using different datasets. The perception index is interpreted as 0 if the country is highly corrupt and 100 if the country is totally free from corruption which is never a verisimilitude globally. As other countries are slacking in their efforts to tackle corruption there are success stories of countries that have worked tirelessly and countries that are serious with dealing with corruption can take notes. Botswana on the African continent shepherds all the countries as

the least corrupt country with a CPI of 63 and ranked 34th on the list of the countries that have the least corruption.

Corruption is highly talked about in public by government leaders, society agrees that corruption has serious consequences for development but it remains one of the under-researched areas. This paper contributes to the body of knowledge by assessing the extent of political will in South Africa and if it has been enough to be able to help cure cancer. Also the paper will look at the judicial system in South Africa, analyzing its independent level and its contribution to minimizing corruption in the republic. Hong Kong, China and Singapore have been leading the Asian continent as the least corrupt countries and our observation is that they have the same systems and institutions that most countries have but their difference is the willingness of political leaders to set the right tone which most countries are still lacking (HSRC, 2015). Below is a graphical interpretation of selected SADC countries showing the corruption perceptions of different countries and South Africa is found lagging in terms of efforts to curb corruption compared to countries like Botswana, Namibia, Mauritius and Seychelles.

Figure 1: Corruption Perceptions of Different Countries



Source: Transparency International (2010)

2. Literature Review

Conceptualization and the Clarification of Corruption: As disturbing as it is, corruption exists in almost all over the world today, in both developed and developing countries although more rampant in developing countries. In numerous countries the new systems of democracy, corruption progresses to become normal, adequate and part of the fabric of life. Corruption can be standardized, according to democracy theorist of Latin America, Guillermo O'Donnell depicts how in a few nations in that district, corruption is segregated episodes, yet "long-standing and stable", changeless and inescapable highlights of these nations' frameworks (Guillermo, 1996). Be that as it may, any public authorities not following the formal standards set up by nation's constitutions, laws and statutes – ends up institutionalized. This implies the standard that the allocation of public fund, arrangements to public foundations and approach making are to a great extent done on the client list, support and degenerate means. These degenerate "standards" are to a great extent acknowledged as the ways things are carried out. South Africa is in genuine peril of following a similar example where corruption becomes systematized or institutionalized. Degenerate practices traverse a wide range, running from trivial corruption whereby influences are required before typical bureaucratic systems are proficient, to huge scale corruption whereby extensive aggregates of cash are paid in kind for particular treatment or access. Corruption happens in the political, financial and managerial circles. Apparently, corruption become worse in nations where foundations, for example, the legislature and the judiciary are powerless or weak, where administer of law and adherence to formal tenets are not thoroughly watched, where political support is a standard practice, where the autonomy and polished methodology of people in

general participation has been dissolved and where common society does not have the way to convey public strain to hold up under or bring public pressure to bear.

When corruption becomes entrenched, its negative impacts increase. It prompts pessimism, since individuals start to view it as the standard or norm of the society. It undermines social qualities since individuals think that it's less demanding and more lucrative to take part in corrupt practices than to look for genuine business. It disintegrates administrative authenticity since it hampers the successful conveyance of public products and ventures. It limits financial development since it decreases the measure of open assets, demoralizes private speculation and investment, sparing and blocks the proficient utilization of government income and improvement help reserves (Policy Forum, 1997). Corruption comes in two structures, the first is the alleged 'big-time' corruption – This is when public authorities twist the guidelines to channel support to relatives, companions and sidekicks, or acknowledge bribes; also when private specialists reward public official to give them undue favorable circumstances or undue rights (Guillermo, 1996). The second type of corruption is the 'Quiet corruption (OECD, 2014), this type of corruption happens when public workers intentionally disregard their obligations to give public administrations or products. The quiet corruption may not include the exchange of cash, but rather includes suppliers of public administrations, for example, Gumede, (2017) stated that if a public servant, such as teachers or nurses not turning up for work when they should. 'Big-time' corruption is taking place without consequences invariably encourages 'quiet' corruption. Furthermore, the different researcher has seen the term corruption in different ways. Its conceptualization has pulled in recent past contending with various perspectives and methodologies. It is subsequently observed as an overall phenomenal which has for some time been with each various society across the world. It has been recognized as the worst thing about most political and financial issues in social orders (Lawal and Tobi, 2001). At the end of the day - corruption is a deliberate bad habit in an individual, society or a country which reflects bias, nepotism, tribalism, sectionalism, undue advancement, accumulating of riches, mishandling of public office, influence, position and determination of undue picks up and benefits.

Corruption additionally incorporates remuneration, sneaking, extortion, unlawful installments, tax evasion, medicate trafficking, adulteration of reports and records, window dressing, false presentation, avoidance, underpayment, duplicity, fraud, camouflage, helping and abetting of any sort to the hindrance of someone else, network, society or country (Ojaide, 2000). In such regards, it is clear that corruption exists eventually everywhere in the world and it turns into the standard especially if the odds of being gotten and extremely rebuffed are low and in the event that it is a by and large acknowledged or endured method of conduct (Gbenga, 2007). Corruption in Africa is an advancement and social issue which turns into a hindrance to change and a genuine requirement on economic development and destitution decrease. Corruption in African nations has turned out to be endemic in that capacity it is discovered nearly in all parts of life. Where an endemic corruption is suggested to be a breakdown of the administer of law, and in many cases lost state authenticity. It distorts the typical utilization of associations, systems and correspondence and prompts expanded personalization of power. Accordingly, individuals come to depend on associations and support rather than formal political, social and monetary principles and ill-conceived utilization of state assets winds up worthy. Where degenerate practices have turned out to be dug in, expansive scale corruption by which government authorities hoard huge fortunes coincides with unimportant debasement by which official authorities at relatively every level demand payment to perform undertakings or give administrations which they ought to do as an aspect of their responsibilities. A normal African comes to see corruption and the wasteful aspects and twists it makes, as an inescapable feature of life. Such corrupted circumstances could make developing rates of monetary and authoritative action become casual, in this manner additionally enlarging the gap between the administration and the general population and therefore limit development.

Facts about Corruption in South Africa: Transparency International is responsible for coming up with an index that measures the extent and rankings of countries according to a depth of corruption. They use the state of public procurement of a country to compute an index. Perceptions of corruption in South Africa have deepened over the past two decades. Transparency International collects data on corruption and fraud from different sources for its annual survey and computes the Corruption Perceptions Index (CPI). The CPI looks specifically at the perceptions that experts and business community have on public sector corruption or maladministration. The scoring of the index ranges from 0 if a country is highly corrupt and 100 if a country is not corrupt at all. According to transparency international (2016), it is disturbing to note that South Africa

dropped 34 places on the list of easy corrupt countries in the world. Government corruption is regarded to be rampant. On the other hand, Chiumia and Van Wyk, (2015) posit that South Africa has so far lost R700 billion rand since 1994 to corruption.

Interestingly 17 places of the decline happened between 2009 and 2016. So far the country is ranked number 72 out of 175 countries that are ranked by Transparency international and there are no indications in as far as government actions that show that corruption might decrease in a short period of time. This is an indication that since the dawn for democracy in South Africa, corruption started to go out of hand and the majority of the cases are in municipalities, government ministers and head of governments in some cases. The research contacted by the Human Science Research Council (HSRC) in 2016 indicates that the amount of South Africans who believe that corruption should be made a national priority rose from 14% to 26% in a space period of seven years (2007 to 2013). In as much as the citizens of South Africa believe that the country has necessary institutions that are needed to strongly fight corruption, 66% of South Africans still believe that the government is not doing enough to fight corruption. The figure is against the average 56% for the entire African continent about governments not doing something to fight corruption (HSRC 2016). Ironically against the background of everything, only 15% of South Africans acknowledge that they have paid bribes to officials a statistic very low to African standards which are above 40%. However, in as much as very few people have acknowledged paying bribes, they are still aware that politicians and public officials misuse public funds. Citizens are abreast to all the corruption scandals that are done by those in power but they have not seen any of the known corrupt people being convicted of corruption and spend years in prison. There is no record that has been set by the South African government so far which citizens can use as a benchmark to judge the willingness of the government to fight corruption tooth and nail.

The Legal Framework and Corruption in South Africa: It is a fact that all corners of the country have agreed upon to say that corruption is rampant in South Africa but the question of how will it end is what most people do not really know. In this part of the paper we will try to analyze the extent to which the judicial arm of the government has been helping to ease the pandemic. Corruption paralyzing South Africa will only be properly dealt with when institutions in all spheres of government in particular criminal justice institutions work together, freely and without interference and without favor or prejudice. Most of the scholars who wrote about corruption across the globe have come to the conclusion that there has to be the political will to allow the judiciary to be independent so that it can deal with corruption. The South African judiciary compared to other developing countries is considered one of the most resourceful and efficient judiciary systems especially in Africa. However, the system is failing to help to combat corruption in the country since there are no high profile cases that have been used to set the tone. There is still very high confidence in the judiciary but there have been some allegations that the judiciary is corrupt and it has failed to prosecute people who have been engaging in corrupt activities especially politicians. Analyzing the criminal justice indicator for South Africa, we look at the one that measures the criminal investigation and correctional systems checking if they are effective, impartial and free from corruption.

The indicator does not look good for South Africa as it is below average. On this indicator, South Africa is below Botswana and Ghana who rank above. Scoring below average on the criminal justice indicator means that the South African Judiciary is marred by the ineffective correctional system and the arm takes too long to process cases in the system. Over all, the South African judicial system has all it takes to set the right tone and thrush corruption in the republic. Unlike other countries that witness judicial systems that are not independent but rely on the willfulness of politicians to fight corruption. The South African system should prosecute high profile politicians, business people and other respected people in the society who are engaging in corrupt activities so that communities know that no one is immune to justice. People need to be sent to jail or people who engage in high profile corrupt deals should be given sentences like those who have committed murder or rape if corruption is to be dealt with from the angle of the judicial system.

3. Methodology

This study used extensive literature analysis method which allows researchers to gather, study and thereby make sense of available documents. These may be available either in the public or private domain (Payne & Payne, 2004; Mogalakwe, 2006). The used method allows researchers to determine the relevance of the

documents that they consult on the basis of their significance to the study. Furthermore, extensive literature analysis leaves it to the researcher to choose the criteria for selecting documents allowing the researcher to choose documents that help reflect on issues the researcher is seeking evidence on (Dey, 2005, p.105).

4. Corruption, Development and Underdevelopment of Africa

Corruption has been a reason for concern since it occupies officially constrained assets and funds, undermines monetary advance, and hinders changes required for improvement since the post-colonial Africa. Without question, corruption has saturated the African culture and any individual who can state that corruption in Africa has not yet turned out to be disturbing is either a trick, a hooligan or else does not live in the continent of Africa (Achebe, 1988). The circumstance has gone so terrible to the degree that whichever way one perceives the term corruption, it includes infringement of public obligation or deviation from high good gauges in full expectation of individual monetary gains. It is associated with moral and exploitative acts (Ayo, 1995). Apparently, corruption is mostly felt in the political and social circles, and in addition the financial circles as well. Despite the fact that the immediate expenses of corruption might be high as far as lost income or assets occupied from their proposed utilize, the aberrant expenses as far as the monetary twists; wasteful aspects and waste coming about because of degenerate practices are more dangerous over the long haul and in this manner make it harder to address. Lawal and Tobi (2001) imply that development would be higher and all the more equally disseminated without corruption. Likewise, if the 'benefits' from degenerate practices are re-invested into the economy, the negative impacts of corruption might be somewhat relieved. The United Nations appraise in 1991 alone, more than $200billion in the capital was pulled out of Africa by the past head of states leaders (George Ayttey, 2002).

This wealth was acquired as a result of corruption additionally frames some portion of the capital flight and on a yearly premise, surpasses what comes into Africa as foreign aid (Ayttey, 2002). It is argued along these lines that "the intact ethnic of the ruling class in Africa is self-magnification and self-perpetuation in control. To accomplish those goals, they assume control and subvert each key establishment of government to serve their requirements and not that of the general population. The Aid benefit, Judiciary, Military, Media and Banking Indeed, even different commissions with grandiose standards that should be non-fanatic and nonpartisan are additionally assumed control and debased" (Ayttey, 2002). Generally, the impacts of corruption in Africa for the most part can be examined from three fundamental viewpoints - The economic or financial, sociocultural and the political perspective. On the political viewpoint, corruption has the limit of inducing political insecurity, the breakdown of lawfulness, brain drain, wastefulness and inefficiency of the public service or benefits. Looking at corruption from the economic viewpoint, it is no uncertainty an enemy to financial and economic improvement in the global scene, while it gives the continent of Africa a poor picture in the global scene and it gives the continent poor picture in relational and business connections (Ojaide, 2000). Furthermore, it is imperative to note that a country that supports corruption is habitually besieged with a considerable measure of financial and social indecencies. Monetary and social infrastructural offices are vandalized to make space for pointless substitution or transformation to individual use. Exchange and business can't flourish, because investors will be unwilling to put much investment or business in that part of the world, the general coming about impacts of every one of these acts of neglect will be increment in the rate of expansion, joblessness and decrease in output, foreign reserves and weakening in the way of life of the general population (Ojaide, 2000).

Corruption from the socio-social setting, it is separated from inducing poverty has the limit of changing the social estimations of a decent and dynamic culture significantly to nothing else than the insane quest for riches affluence, influence and society acknowledgement. Individuals never again value the temperance of confidence, lead and practices. Corruption without a doubt has eaten profoundly into the fabric and texture of the Africans and the African culture and it proceeds with the general population for all time, from generation to generation. Africa displays a normal case whose advancement and the coveted change have been undermined and hindered by the hazard of degenerate practices of corruption. In South Africa, state capture is another form of corruption which has become a discourse in the ANC political administration of President Jacob Zuma. It is when state establishments, assemblies and notwithstanding overseeing parties are claimed by a political group, and few organizations or businessmen. The political gathering, group or small elite or organizations fundamentally channel national public assets for their own self-improvement. They control

approaches, laws and tenets further bolstering their own good fortune, specifically for their private gain, in an unlawful way. They are especially pervasive in nations experiencing significant change, regardless of whether imperialism, dictatorship or in South Africa's case from politically-sanctioned racial segregation of apartheid (Joel and Daniel, 2001). In such nations the tenets of the amusement are evolving, challenged, new, vague or not yet settled; and the administering of law has not been generally grasped.

Frequently, nations on the move are actualizing new monetary changes which create "showcase contortions" (Joel and Daniel, 2001), regardless of whether laws favoring one group, for example, black financial strengthening; or state-claimed organizations privatized efficiently to all around associated government officials and business pioneers. Selected business owners, government officials and organizations especially pitch their items to the express, the state furnishes them solely with business financing or the state only secures the exchanging or mining licenses of favored organizations, legislators and businesspeople; or lift all-inclusive open guidelines, for example, ecological assurances for them. In transitional social orders political, financial and social power is often amassed in the hands of a few individuals – which influences the state to capture conceivable. Development in human culture is certifiably not an uneven procedure yet rather a multi-sided issue. People see development as the increment in the expertise and capacity; they see it as greatest flexibility, the capacity to make duty et cetera (Schumpeter, 1934). Sees development to mean capital gathering and monetary development as well as the condition in which individuals in a nation have satisfactory sustenance and work and the wage disparity among them is enormously lessened. It is the way toward achieving essential and practical changes in the general public. It includes development, grasps such parts of the personal satisfaction as social equity, correspondence of chance for all nationals, impartial circulation of income and the democratization of the advancement procedure (Lawal and Tobi, 2001).

Rodney (1972) sees past the individual or individuals' view of improvement and imagined development whether financial, political or social to infer both increments in yield and changes in the specialized and institutional course of action by which it is created. At the end of the day and all the more critically, development is a multi-dimensional idea and regardless of the different originations, it is essentially about the procedure of changes which lies around the circles of societal life -development. From the above depictions, it is obvious to us that there is a linkage between corruption and improvement. At the end of the day, there is an immediate response of the instrument of corruption on improvement. When development is imagined to incorporate the limit of a legislature or framework to oversee assets effectively to enhance the prosperity of the nationals and afterwards corruption can be therefore viewed as one of the primary deterrents to great administration and improvement of any society. In Africa thusly, the framework does not have the ability to deal with its assets adequately and productively to enhance the personal satisfaction of the African individuals since corruption has moved toward becoming altogether a noteworthy risk to great administration and expected advancement.

Institutionalized Corruption in South Africa: Transparency International's Corruption Perceptions Index (Transparency International, 2010), on the rise of corruption in South Africa indicated through the index that, South Africa is positioned 54 out of 178 nations recorded. South Africa is regarded the most degenerate and corrupt nation in Africa by respondents in the Global Corruption Barometer on Africa, which is directed by Transparency International in collaboration with Afrobarometer (Transparency International and Afrobarometer, 2015). The overview secured 43 143 respondents crosswise over 28 nations in Sub-Saharan Africa, who were giving some information about their encounters and impression of corruption in their nations. Furthermore, another study by Price water house Coopers found that South African organizations encounter more extortion and pay off than their partners somewhere else on the planet (Price water house Coopers, 2014). There are higher episodes of each financial or economic crime classification, with the exception of mortgage fraud misrepresentation and property encroachment. It states that corruption and graft were the quickest developing monetary wrongdoing class in South Africa since 2011. The previous Congress of South African Trade Unions general secretary ZwelinzimaVavi as of late expressed that South Africa was in risk of turning into a "predator state" where another level of pioneers trusted the ball was in their court to "feed". "There is a request in a ruthless state, He further put, and 'I'm not saying that is what is going on – but rather in a standard savage state, there is a request in the encouraging trough'. He therefore advised that the first family must feed first, and then the Cabinet must come, and its family, and then the provincial leadership and council" (ZwelinzimaVavi. 2010). ZwelinzimaVavi (2010), made references and

suggested that South Africa take notes from Tanzania where President Magufuli has been taking long and strong strides against corruption. The Tanzanian president does not only talk about corruption but he also acts making efforts to make a person see corruption as something that is bad for everything economically and socially. The boldest step he took was to equate corruption with treason meaning to say that anyone found guilty with corruption is just like the one who has been found guilty of treason and the sentences for treason are very high.

Discussion about political will in South Africa: Political will is best defined as the intention or desire specifically the firm intention or commitment on the part of government leadership to implement a policy especially the one that is unpopular in their circles (Rabin 2011). This wills fullness has been criticized by many as one piece of the puzzle that is lacking on many issues in South Africa to make many socio-economic factors to work. The politicians have been leading the roaster when it comes to corruption. The people who break the news and make headlines on national television and are politicians or people who are connected to politicians and this have made it difficult for corruption to be minimized in the republic (Newham, 2014). Actually, sending wolves to go and head your sheep is what it is like currently to expect politicians in South Africa to cure the country of corruption. The worst era of all the times was the period when Jacob Zuma was still the president of the republic as he was also implicated in heft corrupt practices. The famous State capture case that President Zuma was implicated in made every serious person lose hope in his capacity to name, shame and act to stop corruption. South African municipalities that are led by the ruling party's politicians have been cited as the most corrupt municipalities in the Republic hence cannot be trusted to spearhead the corruption eradication process. It is these practices that lacked under the administration of President Zuma in the case of South Africa and it is still to be seen under the new leadership of President Ramaphosa.

This paper suggests that the commission of enquiry be set up and it should be allowed to work independently. It will be a litmus test to see if the recommendations of the enquiry will be implemented. Empirically political will has been found as the key holder to many problems that affect societies especially corruption, poverty and inequality. The problem with the will fullness of most politicians in Africa and beyond is the fear of loneliness if they make certain decisions. For example, if someone was working for a politician to assume power, the chances are that the top politicians will not have much power to get the offender prosecuted since the person has been his workhorse before assuming power. In the case of South Africa, the people who have been so corrupt under president Zuma's administration are the people who were regarded as his right wingmen and whatever they will do, they knew no one has the power to make them pay if the president was on their side. Politicians should show by example and start by controlling the ones that in their cabinets to set the right tone to the public. Also politicians must declare their assets so that any accumulations that are done when they are in office can be questioned and that needs the government leader to set those practices (Newham, 2014). Political will can be benchmarked on what President Magufuli of Tanzania has been doing. He talks against corruption every time he speaks in public and he has asked politicians in the government he leads to declare assets and live decent lives.

Suggested ways out of the Pervasive Culture of Corruption in South Africa: The encouragement of a more honest and more decent leadership at all levels must be brought into the political-administrative system. The dynamic support of new and competent leaders, with better esteem and value system, as opposed to great struggle certifications may help build up a societal change in values. The private sector is not forgotten, the corruption in business is frequently not considered important by business pioneers, all-inclusive or locally. For example, arrangement and practices, where costs are settled between organizations to the hindrance of poor shoppers, are once in a while observed by organizations to include corruption. The worldwide financial depression was basically caused by degenerate and insatiable representatives or business owners. However, a considerable lot of these business leaders and organizations currently proceed with the post-worldwide budgetary crisis as though they were not capable. In 2016, South Africa's Competition Commission arraigned 16 banks for rigging foreign trade exchanges and more of such practices are needed if corruption is to be minimized in South Africa. This demonstrates how dealers at these banks, including ABSA, Investec and Standard, occupied with exercises to control the forex advertise toward the end of April 2016. It rose that a significant number of those prosecuted were not new to such illicit exchanges (Moyagabo, 2017). The rejection of corruption in South Africa will promote constitutional values. For this situation South Africans should effectively develop an esteem framework that prizes trustworthiness and

debilitates deceitfulness. Vitally, public and political leaders must be measured against such an esteem framework. Common society should assume a part in disgracing those leaders who exhibit degenerate qualities and empowering the individuals who act with uprightness. In the long haul, the best remedy to corruption is to encourage the estimations of the South African Constitution crosswise over society. Initially, the Constitution must be generally acknowledged as the incomparable administration structure for all laws, qualities and societies.

There must be will to cultivate perfection situated in the political framework. Legitimacy based arrangements to employment in the general population benefit and in legislative issues will make considerable progress to decrease the support arrangement of occupations for buddies, which cultivates corruption in the republic. It is imperative to professionalize South Africa's public administration. Execution understandings crosswise over government must be authorized. More straightforward strategies for arrangements ought to be presented, including settling on results of choices openly accessible. The individuals who are politically designated must have vital capabilities and aptitudes. The administration must have the political will to enhance the institutional ability to battle the acts of corruption in the republic. This we accept would mean fortifying the debasement of corruption battling limit of existing establishments managing corruption. This would incorporate enhancing coordination and reconciliation of against corruption work crosswise over the government. In 2004, the National Anti-Corruption Hotline was set up. Be that as it may, the Public Service Commission (Public Service Commission, 2010) announced in October 2010, that the legislature has "no information" of what has happened to no less than 66% of cases answered to the National Anti-Corruption Hotline. One vital law to battle corruption was the institution of the Prevention and Combating of Corruption Activities Act of 2004. The death of the Act reinforced the administrative base for battling corruption. Besides, there seems, by all accounts, to be minimal political will to implement the Act.

5. Conclusion and Recommendations

To conclude, we consider the fact that corruption in Africa is costing the continent so much and confining its required financial and economic development, and especially in South Africa. In order to enhance African notoriety and guarantee a situation helpful for quick financial, economic and political change, South Africa must set up mechanisms to search internally at handling the issues that are assailing corruption for quite a while. The objective of this paper was to analyze the extent of political will and assess the level of success in combatting corruption in South Africa. Our findings make us conclude that the legal framework on its own without the support of political will shall not overcome this cancer. South Africa is a signatory to institutions like the African Union and the United Nations on agreements to help eradicate corruption but we feel that more still needs to be done and the government has to be more radical if a corrupt free South Africa is to see the light of the day. We suggest that the government establish corruption courts in all the districts across the country. More high profile figures in the business and political arena that are linked or suspected to corruption have to be investigated for the majority of the country to trust that the government is able and is willing to take down corruption. Politicians that have been implicated in corruption scandals are still allowed to continue and finish their terms and this continues to cast more doubt on the political will of the political leaders to tackle corruption.

We also feel that outsourcing as a procurement policy has been playing a huge role in exacerbating public sector corruption especially in municipalities. A lot of heavyweight politicians have been implicated into this but not much has been done to heavily punish these people to set the record straight. Corruption in the form of pay-offs in return for inflated government tenders familiarly known as tender preneurship is a serious pandemic in South African government procurement. The situation has been made worse with a policy called Black Economic Empowerment (BEE) which was meant to correct the historical imbalances that happened during the apartheid era. This policy has fueled and opened gaps for grand corruption and has mostly enriched black elites or those who are directly connected with the ruling party (ANC). This means that the awarding of tenders in the public procurement has not been based on merit but on a partisan basis. These tenders have been hugely used to reward the ANC heavyweights and its supporters not helping the general populace of the country. As a substitute policy, we recommend that the government department have their own internal departments that specifically deal with jobs as opposed to the current outsourcing procurement policy which is opening and loosening floodgates of corruption.

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Climate Change: Towards Compensating Africa for Economic Growth and Development by Industrialized Countries

Monaheng Mahlatsi
National University of Lesotho, Lesotho
mahlatsimojo7230@gmail.com

Abstract: On one hand, anthropogenic climate change is real and affecting the world economy in general and Africa in particular. On the other hand, the policy of climate change adaptation as the solution to the problem of climate change is seriously unsuccessful in Africa. Even though climate change is affecting the whole world, Africa is the most vulnerable continent that is economically affected. This is due to a variety of interconnected consequences of climate change such as droughts, floods, desertification, diseases and poor agricultural system including other unknown factors. This article focuses on challenges facing the implementation of climate change adaptation policy in Africa. The implementation of the policy of mitigation of greenhouse gas emissions will not be discussed. The aim of the article is to investigate the underlying implications of climate change adaptation policy that hamper smooth growth and development of the African economy. To achieve this aim, the theoretical research method will be utilized. This article concludes that Africa cannot afford to adapt to climate change because of its extreme poverty and will remain economically poor and suffer the consequences of climate change if industrialized countries are reluctant to compensate it. Therefore, the article argues that industrialized countries have a moral duty to compensate Africa for the harm they have caused through industrialization. The compensation will boost the African economy that is necessary for climate change adaptation.

Keywords: *Climate change, adaptation, African compensation, African economic growth, industrialized countries.*

1. Introduction

The anthropogenic (man-made) climate change is real. It is affecting the world in general and Africa in particular. There are observable consequences of climate change such as droughts, floods, desertification, diseases and poor agricultural systems to mention a few. These consequences force the African economy to decline. The declining African economy calls for immediate action to be taken. Failure to take immediate, necessary and accurate measure to address this problem will lead to the destruction of the present and future African well-being. Climate change adaptation policy has been recommended and accepted by most rich countries as a solution to the problem of climate change. However, the implementation of the policy requires strong financial power and this implies that Africa cannot afford but only rich countries can. Now, the salient question is; if Africa was a participant in finding the solution to the problem of climate change, would it prefer adaptation to climate change as the best solution yet it is economically weak? The inability of Africa to implement the policy may give room to the feeling that the policy was imposed and it was foreseen that Africa will not afford to implement the change hence it will be forced to continue to economically depend on rich countries. In the light of the foregoing, the policy of climate change adaptation is seriously unsuccessful in Africa. Climate change continues to negatively affect the African economy. In the same manner, the African economy continues to deteriorate to the level of extreme poverty.

Understanding Global Warming and Climate Change: An assessment report of the Intergovernmental Panel on Climate Change (IPCC) 2007 provides observed changes in climate system together with effects of those changes. According to the report, there is scientific evidence about increases in global average air and ocean temperatures, rising global average sea level and global melting of snow. This scientific evidence is proof that climate change is globally happening with devastating effects. The report further concludes that the cause of climate change is the continuous global emissions of Greenhouse Gases (GHGs) such as Carbon dioxide (CO_2), Methane (CH_4) and Nitrous Oxide (N_2O) into the atmosphere. As compared to other Greenhouse gas emissions, Carbon dioxide emission is the top on the list since it increased by 80% between 1970 and 2004 due to human activity. Anthropogenic climate change in this context refers to the long-term variation of the climate system that is significantly influenced by human activity through Greenhouse gas emissions (Pojman, 2008: 572-573, Van De Veer et al., 2003: 620-621). A distinction between concepts of

global warming and climate change should be made since both concepts are sometimes used interchangeably yet they are two different phenomena. Thus, global warming refers to the increasing global average surface temperature while climate change is variations in global climate which is caused by increasing global average surface temperature (Pojman, 2008: 576). This implies the cause-effect relationship between global warming and climate change. In other words, global warming is the cause of climate change hence global warming and climate change are interrelated and interconnected. Therefore, it is due to their relationship that they are confused and used interchangeably. Having made the distinction between global warming and climate change, the discussion will extend to consequences and implications of climate change for Africa.

2. Consequences and implications of climate change for Africa

Africa will suffer the consequences of climate change even though it is not the main contributor to global warming (Brunner et al., 2005: 173). It is certain that Africa is more vulnerable to impacts of climate change than other regions globally. Amazingly, climate change has a threatening potential of destroying the future wellbeing of Africans, ecosystems as well as the socio-economic development of the entire continent (Van Wyk, 2010: 3). There are important projections concerning climate change in Africa and they should not be ignored by the international community and industrialized societies. It is projected that, areas over the Sahara region and semi-arid areas of Southern Africa will experience a temperature increase of 1.6°C by 2050s while equatorial areas will be 1.4°C (Hulme et al., 2009: 33). Moreover, it is also projected that the sea-level rise at the African coastline will be about 25 cm by 2050 (ibid). At this juncture it must be emphasized that Africa, more especially the Sub-Saharan, has no power to prevent climate change hence it is only left with responding to it (Brunner et al, 2005: 176). This implies climate change adaptation. It does not imply mitigation because Africa is not one of the industrialized continents hence it has nothing to mitigate as far as mitigation of carbon dioxide emissions is concerned.

Countries in this region are not even ready to prevent climate change because they are busy struggling with consequences not causes of climate change, which they are unable to address. Therefore, this leaves them in more jeopardy and extreme poverty (ibid). The driving force behind more vulnerability to climate change in Africa is extreme poverty. For example, livelihoods in Africa depend hugely on natural resources, more especially in rural areas since they rely on agriculture, forestry and fisheries. Furthermore, climate change brings about extreme weather conditions that are difficult for African governments to predict while weather is very significant in agriculture (Smith, 2006: 8). Again, most people in Africa live in areas that are exposed to droughts and desertification (Brunner et al., 2005: 176). What makes matters even worse is that, the average per capita income in Africa appears to be the lowest as compared to other countries of the world. Therefore, this limits Africa to rebuild livelihoods after the hazardous impacts because of poor financial resources and this is exactly what makes poverty reduction and Millennium Development Goals futile in Africa (Smith, 2006: 9). Major lethal climate change consequences that face Africa are as follows: droughts, floods desertification health agriculture and food insecurity.

Droughts: High-temperature increase results in increased evaporation hence the likelihood of drought. (Smith, 2006: 21). Clearly, the increase in evaporation coupled with temperature increase affects water availability. For this reason, climate change has a strong influence on the flow of water in rivers, water availability and the quality of water. Therefore, most regions in Africa that have low rainfall suffer water stress hence drought. According to the IPCC Synthesis report, (2007) it is estimated that, between 75 and 250 millions of people in Africa will be exposed to severe water stress by 2020 due to the influence of climate change. To be more specific, it is projected that, due to lower precipitation in Lesotho where water is a crucial and most abundant resource, there is a likelihood of reduced availability of fresh water due to climate change (Mwangi in Van Wyk, 2010: 45). It is without a doubt that, water stress will affect access to fresh drinking water, agriculture and sanitation in Africa. These will directly affect food production and human health that will result in hunger, diseases and ultimately deaths.

Floods: Armah (2005: 204-205) argues that coastal areas in Africa are vulnerable to floods due to sea-level rise and it is projected that, these areas will be severely flooded as the sea level rises up to a meter in the next decades. Areas that are likely to be affected most by floods in Africa are mainly coastal areas of West Africa and physical changes that would threaten coastal habitats and ecosystems are expected. Changes include

coastal erosion, damage of infrastructure, and sea water intrusion into the fresh water system, sewage system breakdown and loss of ecosystems.

Desertification: Climate change has affected and will continue to affect Africa with desertification and its implications. Scientific research on the issue of desertification and its implications in Africa has been done and it has been found that desertification is real and continuing. The general observation is that, Sub-Saharan desertification, as it continues, leads to moisture and rainfall reduction in the northern Sahel while it increases moisture and precipitation in the southern part of it (Balling Jr, 2005: 43). Moreover, research has also revealed that, the increase in temperature in most African regions causes the increase in evaporation hence reduction in the levels of soil moisture. In this regard, it is projected that the soil moisture level in most sub-Saharan regions will decrease by less than 1cm while the northern Sahel will experience a reduction of up to 3cm. Again, a bigger portion of the Western half of Southern Africa soil moisture will decline up to 1 to 2cm. Eastern Southern Africa will see few centimeters increase in soil moisture (ibid, 47). It is clear that, regions that will experience increased soil moisture and precipitation will experience floods while those with reduced soil moisture and precipitation will see droughts and desertification that will negatively affect access to clean fresh drinking water, agriculture, sanitation and human health in Africa.

Health: Climate change has a direct impact on human health imposed by rising temperature and shortage or too much water. The consequences of climate change for Africa in particular are very serious and threatening. For example, it is expected that, with changing rainfall patterns, a population of disease-carrying mosquitoes will multiply and result in increased malaria. This will be accompanied by the increase of water, food and vector-borne diseases such as cholera due to water contamination caused by increased floods and unhygienic practices when there is no water. Changing precipitation patterns will also reduce agricultural production and food distribution throughout the continent. It is projected that between 75 and 250 million people on the continent will be exposed to water stress by 2020. Consequently, malnutrition and hunger will increase due to reduced food production and distribution. This will negatively affect both physical and intellectual progress in children, adult productivity, increased diseases hence deaths. (Smith, 2006: 24)

Agriculture and food insecurity: A large number of the population of Africa relies on rain-fed agriculture and it is clear that any change of precipitation pattern will affect agriculture. For example, about 70 percent of the African population relies on agriculture and 40 percent of agricultural production is exported. Climate change will affect food supply by changing precipitation patterns and such changes will result in devastating consequences such as increased floods and droughts. It is projected that in some countries where yield depends on rainfall, agricultural production and access to food will be reduced by up to 50% by 2020. Climate change will also affect food supply through farming systems. It will affect farming systems by altering planting dates, methods, crop suitability shift and increased temperature may result in livestock deaths (Smith, 2006: 22). This will also reduce agricultural production and lead to the food shortage in Africa. Another major threat coupled with food shortage will be the rising of food prices. Thus, "…food prices would rise globally with increases of global average temperature of a few degrees or more because of a slowing in the expansion of global food supply relative to population growth" (ibid). While climate change is affecting the African economy and wellbeing through droughts, floods, desertification, health, agriculture and food insecurity, an amicable solution is not yet made to address the problem of climate change in Africa. Instead, the problem of climate change is overwhelmed by unending debate. Now, the discussion will move to the climate science debate.

Climate science debate: Climate science debate emerged in 2007 when the IPCC released its Fourth Assessment Report indicating that climate change is real as a result of the observed rising global average temperatures starting from the mid-20th century. It further states that the observed increase in global average temperatures is without doubt due to the anthropogenic Greenhouse gas emissions as agreed by scientists. Consequently, the IPCC and Al Gore were awarded a Noble Peace Prize for their scientific work on climate science in October 2007. Al Gore had released a documentary in 2006 titled: "An Inconvenient Truth" which argued that the anthropogenic climate change is real and if immediate steps are not taken for reducing Greenhouse gas emissions, devastating climate changes would cause havoc in human societies hence the fall in industrial development. In response to the findings of Al Gore and the IPCC, a number of scientists grouped together and established a group known as Nongovernmental International Panel on Climate Change (NIPCC)

in order to make a report that would challenge the scientific findings behind the anthropogenic climate change. Floods will not only affect the coastal habitats and their species, but will also damage livelihoods that depend on them (Smith, 2006: 23).

For example, livelihoods of people in the coastal area of Ghana depend on coastal habitats and their species such as the production of certain fish (Armah, 2005: 204). Clearly, floods will result in hunger, diseases, extreme poverty and deaths in flooded areas in Africa. Their report titled: "Nature, Not Human Activity, Rules the Climate" was published on the 2nd March 2008 by Heartland Institute (HI). Eventually, both sides of the climate science debate agree that Greenhouse gases such as Carbon dioxide (CO_2) and Methane (CH_4) as well as global average temperatures have notably increased as from early 20th century. Despite their agreement, the prevailing climate science debate is based on the question of whether climate change is a natural or man-made phenomenon. Even though the IPCC claim that there is a "scientific consensus" over the reality of Anthropogenic Climate Change (ACC), this is disputed by climate change denialists. Climate change denialists argue that climate change has happened is happening and it will continue to happen even in the future. For example, they emphatically argue that human emissions of Carbon dioxide and warming trends occurred a long time ago even before industrialization. Moran, (2010: 24) argues that temperatures in the Roman warming about 250 BC were 2°C to 6°C warmer than today and there is scientific proof that cooling had happened in the past five years which proofs the future inevitable cooling.

In the same manner Ball (2014) argues that the deception that human activity causes global warming or climate change was deliberately designed to be global through United Nations agencies such as the IPCC. According to Moran, (2010: 30) the purpose of deception is to make people in the whole world think that the world is approaching a devastating stage of warming which humans can actually stop yet there is no convincing evidence. Moreover, he argues that the sole purpose for using climate change science and IPCC as political instruments is simply that the West wants to continue to have full control over Africa. To achieve their objective, they have hijacked climate science and established a new shift to environmentalism. Surprisingly, climate science scientists have even made a "consensus" that climate change is man-made. This behavior is highly questionable since science is always hypothetical but their science has found the so-called "truth" that climate change is anthropogenic. In the light of the above, climate science debate has implications for Africa that need to be taken seriously. The discussion will now extend to implications of climate change debate for Africa.

3. Implications of the climate science debate for Africa

The current dominance of the Western epistemological model for understanding global warming and climate change is imposed upon Africa without giving its leaders a chance to share their worldview with Western leaders. Climate change consensus which has been influenced by the Western worldview may be considered as a form of Neo-colonial thinking and manifestation of philosophical racism that undermines African sovereignty. In the African context, African sovereignty is understood as a right and power of Africa to govern itself without interference by other external powers while Neo-colonialism refers to "the de facto renegotiation of the colonial status" (Eze, 1998: 248). In Other words, Neo-colonialism represents Colonialism in the contemporary world whereby, a State which used to be a colonial territory is independent in theory alone. That is to say, its socio-economic policies and systems are still controlled by the external colonial power and this control is irreversible. Philosophical racism refers to the characterization of Africans as sub-humans due to complete lack of reason since according to the Western worldview; to be human is to possess reason (Ramose, 1999: 12). Combined together, Neo-colonial thinking and philosophical racism affect African sovereignty and well-being.

This is done through the deprivation of African political and economic development hence a direct violation of a right to life. Therefore, the imposed man-made climate change thesis is just an excuse on the part of the Western industrialized world to stop Africa from industrializing or developing and by implication, preventing Africa from effectively overcoming the problem of poverty. Climate science debate has political and economic implications that are interconnected for the African continent. The political implication is that, if Africans through the influence of their political leaders and media accept the argument that climate change is a natural phenomenon, they reject Neo-colonialism and its effects. On the contrary, if they accept the argument that

climate change is man-made, the implication is that they accept and give room to Neo-colonialism that is characterized by evils such as; dictatorship by the West, dependency on the West, internal and external conflicts, corruption, poverty and poverty-related diseases as well as starvation that will lead to gradual disappearance of the African States.

Furthermore, the economic implication of the conception that climate change is man-made is that there should be absolute cuts of Carbon dioxide emissions. The aim of this idea is simply that climate change extremists should acquire an absolute reform of world economies in the name of environmentalism. This implies the collapse of industrialization in the non-Western world and this is a good tool of keeping the non-Western world underdeveloped yet there is a demanding responsibility for intelligent political leaders to develop their world. The initiative for the regulation and legislation of Carbon dioxide will have a negative economic impact on Africa. Once this idea is implemented, food prices and other commodities will increase and the non-Western world will not afford expensive necessities such as food, clean water, and electricity as well as good health services. Therefore, the regulation and legislation of Carbon dioxide emissions will result in an unnecessary disruption of economies and wellbeing of people in the non-Western world. Now, climate science debate raises three basic doubts. The first is that science is normally based on hypothetical facts not consensus, but seemingly, climate change science is based on consensus. This science is highly questionable since it has found the so-called "truth" that climate change is anthropogenic. Now, questions arise: why did the findings become a consensus? Was it not for the purpose of silencing the critics in order to have the position of climate science prevailing as the "only truth?" How credible are the findings since science is always hypothetical in seeking the truth?

If climate science has uncovered the "truth", how did it arrive at that truth? Above all, why that finding is universalized and imposed? What are climate scientists hiding? Is it not for the reason of ruling out the possibility of inter-cultural dialogue about the problem of climate change? Secondly, why does climate science focus only on anthropogenic global warming not natural causes or both? Thirdly, climate change has happened, is happening and it will continue to happen even in the future. Thus, warming trends occurred even before industrialization as well as human emissions of Carbon dioxide and there is scientific proof that cooling had happened in the past few years which proofs the future inevitable cooling. Now, the question is: if warming trends occurred even before industrialization, how true is the so-called "scientific consensus"? In the light of the above doubts one may argue that climate change consensus has a hidden agenda behind climate science and environmentalism against developing nations. These doubts do not only uncover the hidden agenda about climate change consensus but also reveal serious political implications that are not for the benefit of the African continent. For example, climate change consensus urges Africans to resist industrialization because of a threat that human activity through industrialization cause climate change. Now, it logically follows that if African leaders accept this argument, they will be choosing poverty on the part of Africa – a choice which is indirectly imposed by devising a threat. Consequently, this choice will force African leaders to always seek economic aid from the West thereby prolonging African dependency in the form of Neo-colonialism which will continue to undermine the African sovereignty. At this juncture, the discussion will move to the issue of compensating Africa for economic growth and development.

Towards Compensating Africa for Economic Growth and Development: There is a huge amount of Greenhouse gases emitted by industrialized societies. The issue of stabilizing the amount of greenhouse gases in the atmosphere has become a global political concern. As a result, industrialized societies have a moral obligation to lead the initiative of reducing carbon dioxide emissions since they are the ones responsible. A significant initiative in an attempt to address the problem of climate change was realized by the establishment of the IPCC in 1988. One of its objectives was to assess and formulate possible and necessary responses as well as strategies that can be utilized to stop climate change that is caused by human activity (Jager et al., 1996: 15 -20). The United Nations Framework Convention on Climate Change (UNFCCC) was signed at the Earth Summit in June 1992.Most State parties to the convention agreed to prevent destructive human interference with the system of the natural climate by reducing the emissions of carbon dioxide into the atmosphere (Read, 1994: 226 -227). Under the auspices of the UNFCCC, the Kyoto Protocol was ratified by most developed countries. The protocol committed developed countries to take action for reducing Greenhouse gas emissions. However, the protocol was not binding on the part of developing countries. The expected period for the reduction of emissions was estimated to start from the year 2008 to 2012 (Smith,

2006: 82) but all in vain. The UNFCCC and Kyoto Protocol acknowledge the scientific consensus that climate change is caused by human activity by developed countries through industrialization. As a result, they both call for the reduction of Greenhouse gas emissions but silent about the harm that has been caused by industrialized countries on the African continent.

4. Conclusion and Recommendations

The Anthropogenic climate change is real and affecting the African economy. Industrialized countries are major contributors of the anthropogenic climate change through industrialization. Africa is not able to adapt to climate change due to poverty and the politicization of climate change. Consequently, these hamper smooth African economic growth and development. To accept that climate change is anthropogenic does not only imply the acceptance of Neo-colonization but also to hold industrialized countries morally responsible for anthropogenic climate change and its consequences. Therefore, it is recommended that climate science should be depoliticized. More importantly, Africa has a moral duty to strongly eradicate poverty through industrialization using renewable energy while industrialized countries have a moral duty to compensate Africa for the economic harm they have caused on Africa through industrialization. In this regard, their call for the reduction of Greenhouse gas emissions into the atmosphere is incomplete if they ignore the harm caused. In the same manner, the call to reduce Greenhouse gas emissions should also imply the call to restore the harm caused. The restoration of the harm caused should be done by way of compensating Africa since it is the most affected part of the world. The initiative will then boost the African economy and as a result, Africa will be able to adapt to climate change.

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The Library of Rudolf Steiner: The Books in English

John Paull
School of Technology, Environments and Design, University of Tasmania, Hobart, Australia
j.paull@utas.edu.au, john.paull@mail.com

Abstract: The New Age philosopher, Rudolf Steiner (1861-1925), was the most prolific and arguably the most influential philosopher of his era. He assembled a substantial library, of approximately 9,000 items, which has been preserved intact since his death. Most of Rudolf Steiner's books are in German, his native language however there are books in other languages, including English, French, Italian, Swedish, Sanskrit and Latin. His library hosts more books in English than in any other foreign language. Steiner esteemed English as "a universal world language". The present paper identifies 327 books in English in Rudolf Steiner's personal library. Fifty percent of the English-language books identified are categorized as Theosophy (n=164). Rudolf Steiner was the General Secretary of the German branch of the Theosophy Society from 1902, and he hived off his own Anthroposophy Society in 1912. The present study reveals that Steiner maintained his interest in theosophy throughout his life as he stayed up to date with the proliferating portfolio of Theosophy publications. The publication dates of Steiner's Theosophy collection range from 1877 to 1923. The leading exponents of Theosophy in his day are well represented in Steiner's collection, including Annie Besant (n=61), Charles Lead beater (n=13), William Westcott (n=13) and Helena Blavatsky (n=10). Of the other 50% of the Anglo-books identified, 20% are in the category of Religion (n=67), 10% are Social Science (n=33), 6% are Philosophy (n=21), 4% are Science (n=13), and 3% each are Anthroposophy (n=11), History (n=9) and Arts (n=9). The publication dates of Steiner's Anglo-books span the period 1659 to 1925. This demonstrates that Steiner was acquiring Anglo-books right to the end of his life. Steiner's library throws light on the development of the thoughts of this remarkable individual and the present paper reveals Steiner's engagement throughout his life with the world of Anglo-publishing and thought.

Keywords: *Anthroposophy, Theosophy, Society, Dornach, Switzerland, personal library.*

1. Introduction

Rudolf Steiner (1861-1925) was a New Age philosopher, mystic and polymath who has left an enduring legacy of alternative practices in a variety of domains. The most notable and visible elements of that legacy are biodynamic farming (and thence organic agriculture), Waldorf education (there are over one thousand schools worldwide), organic architecture (the most remarkable example is the present Goetheanum building at Dornach, Switzerland), and the Anthroposophy Society (the entity charged with promulgating Steiner's 'spiritual science' and philosophy and headquartered at Dornach). By all accounts, Steiner was a voracious reader all of his life. As a young man, Steiner edited the scientific works of Goethe, Germany's most esteemed philosopher (Wachsmuth, 1989). In the course of his life, Steiner accumulated a substantial library which, during the latter years of his life, was housed in his home, Haus Hansi, in Dornach, Switzerland, where he lived from 1914 onwards (Paull, 2018a). More than nine decades after his death, that library remains intact in Dornach and is rehoused in the Rudolf Steiner Archive (Figure 1).

Rudolf Steiner always spoke to his English-speaking audiences in German. He requested, as he did at Oxford, "forgiveness that I cannot speak to you in the language of this country. Any disadvantage this involves will be made good, I trust, in the translation to follow" (Steiner, 1922, p.7). When the Italian/Australian artist Ernesto Genoni first met Steiner (in 1920) he received a warm welcome but they did not find a common language: "Unfortunately he was speaking in German which I did not know, but by his long handshake and smiling expression of his face I could feel his sincere welcome" (E. Genoni, c.1970, p.7). Genoni relates that in 1924: "on this second visit [to Dornach, Switzerland] I could speak to DR Steiner in the French language. On the first visit I was unaware that DR Steiner could speak [French]" (E. Genoni, c.1970, p.8). Nevertheless, Rudolf Steiner's personal library reveals a trove of books in English that he acquired over a lifetime, despite not publicly speaking the language.

The library of Rudolf Steiner has survived due to the 'lucky' confluence of several factors including: (a) Steiner was revered in his lifetime; (b) during Steiner's lifetime there were already processes in place to

preserve material aspects of his life, including, for example, recording the texts of his lectures in shorthand, and retaining his 'blackboard' drawings from his lectures by having him draw on black card; (c) Steiner established the headquarters of the Anthroposophy Society at Dornach, and at the time of his death there was already substantial built infrastructure and governance in place, as well as a coterie of devotees and acolytes in situ; (d) Dornach is just inside the boundary of Switzerland, certainly within earshot of the shelling of war, but the neutrality of Switzerland was respected by the belligerents during both World Wars, and the country did not suffer the destruction that engulfed its neighbors; and (e) Steiner's library was housed at Dornach (for the final decade of his life) and his widow, Marie Steiner, as the keeper of the books, was keen to preserve and progress the legacy of her husband. The net result is that Steiner's library of about 9,000 items has been safely preserved at Dornach.

Steiner's language was German. He used that language to variously enchant, enthrall, mesmerize and bewilder audiences. He travelled and lectured throughout continental Europe. He always lectured in German. He made ten visits to Britain (Villeneuve, 2004), and there, as elsewhere, his lectures were in German. He did not visit any other English-speaking countries; the furthest west he travelled was Tintagel, on the west coast of Wales (Paull, 2012). The challenge of translating his lectures into English was solved by recourse to the remarkable linguist George Kaufmann (later in life known as George Adams) (1894-1963). To an Anglo audience, Steiner would deliver his lecture in three brackets of twenty minutes each. Following each bracket of German, George Kaufmann would deliver a rendition of comparable length, in English.

Figure 1: The personal library of Rudolf Steiner is re-housed at the Rudolf Steiner Archive, Dornach, Switzerland

A contemporary account reporting on Steiner speaking at Oxford, relates that: "When he spoke it was clear that he possessed the qualities of expositor and preacher to a matchless degree. Also, being an artist to his fingertips, it was obvious why he spoke in his own tongue, of which he has an absolute mastery … a large part of an English audience is unable to understand German … Ordinarily, it would be something of a strain on an audience to listen to three addresses and three translations covering a period of two and a half hours, but … DR Steiner ... soon holds his listeners under the spell of his power… DR Steiner does not shrink from that

thoroughgoing formality which gives to his address … absolute clarity … Words, phrases, and formulae … and rhythmical cascades of eloquence … sometimes reach the rapidity and force of a torrent" (Hare, 1922, p.219-221). English was important to Rudolf Steiner. When the first Waldorf School was established in Stuttgart, Germany, in 1919, Steiner was insistent that students learn two foreign languages, one of which was to be English.

He stated that: "English is taught because it is a universal world language, and will become so more and more" (Steiner, 1924c, p.139). Steiner was keen that his messages were delivered to Anglo-audiences. Even in the final year of his public life, when he was suffering from serious ill health, Steiner made the journey to the International Summer School of the Anthroposophical Society held over twelve days in August of 1924 at Torquay, a beach-side town on the south coast of England, where he delivered lectures morning, afternoon, and evening (Paull, 2018b). Others of Steiner's entourage from Dornach, including DR Elisabeth Vreede and DR Guenther Wachsmuth lectured in English at Torquay (Lindenberg, 2017), but for Steiner it was always German. Rudolf Steiner was a bibliophile. Albert Steffen remembered: "Up to the last day of his life, his interest was for the entire world. In his studio, which he had not left for half a year, he had collected an entire library" (1925, quoted in Lindenberg, 2017, p.757). To the very end, Steiner maintained a keen interest in knowledge and ideas and in books as a vehicle for conveying them. In the final months of his life Steiner was bed-bound, yet his appetite for books remained voracious. Gunther Wachsmuth relates his personal testimony that: "from his sick bed, Rudolf Steiner continued as always to do an enormous amount of reading, keeping himself abreast continuously of new publications in science, art, history and all other fields of work.

Since he could no longer visit the bookshops and the dealers in antiquarian rarities, I was given the difficult job of regularly selecting and buying books which might be of interest to him … Every few days … I visited the bookshops in Basle, and often in other towns, looking for books which might be what he would care to read. And then, whenever I came to his bedside with a great pile of books … he thoughtfully took one book after another, looked at the title and the name of the author, turned a few pages, and made his choice. The books that he wished to keep and read he stacked on the right side of the bed, and the others in the left … How he managed to study the huge pile of books lying on the right side of the bed, in the midst of all his other work, and in spite of his illness, was a mystery, but chance remarks on the next occasion when I brought him books showed that in the meanwhile he had made himself thoroughly acquainted with the contents of their predecessors" (1958, p.167). Steiner wrote, on 5 March 1925, that: "My condition is improving only gradually. And it is imperative that I shall soon be capable of working" (quoted by Wachsmuth, 1989, p.583). On 23 March 1925, he wrote "Everything is progressing terribly slowly with me. I am really quite desperate about the slowness" (in von Arnim & von Arnim, 1988, p.263). Rudolf Steiner died on 30 March 1925 (Collison, 1925).

Personal libraries are typically dispersed after the owner's demise. For example, the personal libraries of the authors Lewis Carroll and Richard Adams were sent to auction (Flood, 2017, Stern, 1981). In one way or another, most personal libraries are disaggregated and dispersed. For example, in the present author's library are the Agriculture Course issued to Ileen Macpherson (Copy No. E.52, Steiner 1924a) and the German version of the same book, Land Wirtschaftlicher Kursus, issued to Baron DR von Veltheim-Ostrau (Copy No. 257, Steiner 1924b). Rather than being disaggregated, some personal libraries have been aggregated into larger collections, for example, Catherine the Great of Russia acquired the personal libraries of others and incorporated them into her own library (Miles, 2018). Other personal libraries have suffered the vagaries of history. Personal and public libraries throughout Europe were lost to incendiary bombing and fire during World War 2. In Russia, during the Siege of Leningrad (1941-1944), many treasured books were dispatched to the oven in a desperate bid to survive sub-zero winters (Peri, 2017). During the Cultural Revolution (1966-1976) in China, in a paroxysm of revolutionary ardor, Red Guards of Mao Zedong (1893-1976) destroyed many foreign and antiquarian books (Robinson, 1970). Rudolf Steiner's personal library has survived intact. The present paper identifies the English-language books of that library.

2. Methodology

Rudolf Steiner's personal library is preserved, shelved in a basement of the Rudolf Steiner Archive at Dornach Switzerland. The present account relies on the books of the library, a card file system of the books of the

library, and a print out of some of the books of the library. The library items are not shelved by language. For the present account, the English-language items have been selected out.

3. Results

The personal library of Rudolf Steiner is a library reportedly of about 9000 items according to the Rudolf Steiner Archive of Dornach. In the present study, 327 items are identified as English language publications. These items are presented in Appendix A. In that appendix, the Anglo items are referenced in APA style, in alphabetical order by author, and numbered. Where an author has several items in Appendix A, those items appear in chronological order. In each case, items in Appendix A bear the Rudolf Steiner Archive Number (RSA#) and a book category. In general, the category specified in Appendix A follows that of the Archive, with a handful of exceptions were the category specified in Appendix A is that which seems arguably more appropriate to the present author. It needs to be borne in mind, that single-category typologies suffer the defect and the contestability of the subjectivity of selecting the most appropriate category from what may be a competing list (for example, consider a hypothetical title, The History and Philosophy of Hindu Arts and Sciences, which could arguably be classified as History, Philosophy, Religion, Arts or Science). That is expected and understandable given that German was Rudolf Steiner's first language. He was a master of this language and none other. Steiner travelled widely and frequently within Europe (but not beyond), his public presentations were in German, and for non-German speaking audiences he relied on a translator. Section 3.1 identifies, in passing, some data and books of Rudolf Steiner's library of incidental or contextual interest to the present paper. Section 3.2 and Appendix A together constitute the substantive content of the present paper, and they describe and list the 327 Anglo-books identified in Rudolf Steiner's library.

The Non-Anglo Books

Books in Other Languages (neither German nor English): Besides the books in German (the bulk of the library) and English (Appendix A), there are other books in their original languages in Steiner's personal library. For example, there are books in Italian (e.g. Caniglia, 1922; Colombo, 1921; R. Genoni, 1924), in Dutch (e.g. Vissering, 1920), in Swedish (Hellberg, 1922), in French (e.g. Cheftele, 1920; Maday, 1913; Piaget, 1915) and in Latin (e.g. Fludd, 1687).

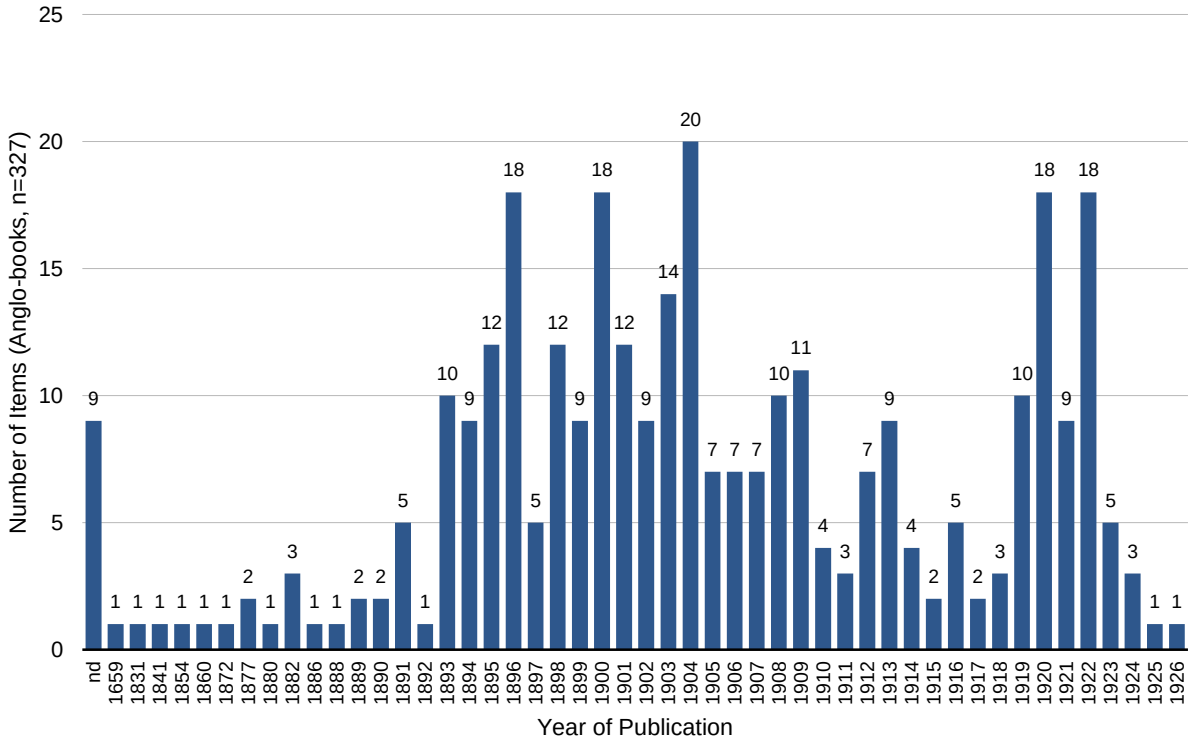
Books in German Translated from Other Languages (including from English): In general, it appears that, where a German translation was available of a book, then that translation was preferred by Steiner. In his library we find, many foreign authors translated into German. German translations of English-language books in Steiner's personal library, include, for example, books by the American industrialist Henry Ford (RSA# G 0241), by US politician Theodore Roosevelt (RSA# G 0734), by British art critic John Ruskin (1819-1900) (RSA# G 0766), and by British historian and politician Thomas Macaulay (1800-1859) (RSA# G 0551). There are German translations of non-English-language books, for example, by, Russian revolutionary leaders Vladimir Lenin (1870-1924) (RSA# G 0523) and Leon Trotsky (e.g. RSA# G 0898), and by Russian author Leo Tostoy (e.g. RSA# G 0897).

Books in German about England and Anglo-Authors: Steiner's library reveals his keen interest in England and the English. Titles in his personal library include: Der English Charakter (Fontane, 1915, RSA # G 0240), English Denkträgheit (Schultze, 1915, RSA# G 0808), Das Modern England (Keller, 1915, RSA# W 159), and Gegen England (Wagner, 1914, RSA# W 323). Books about Anglo-authors include books about Charles Darwin (by Peryer, 1896, RSA# N 440), about William Shakespeare (by Tolstoi, 1906, RSA# L 261), and about US author Walt Whitman (by Schlaf, 1897, RSA# L 221).

The Books in English (n=327): There are 327 books in English identified. These books are listed in Appendix A. The publication dates of Steiner's English books range from 1659 to 1925 (Fig. 2). There is a date anomaly with one item dated 1926 (Fig. 2). There is a peak at 1904, and subsidiary peaks at 1896, 1900, 1920 and 1922. What is clear is that Steiner was active right to the end of his life in building his library. Fifty per cent of the English-language books is Theosophy titles (n= 164) (Fig. 3). They range in date from 1877 to 1923 (Fig. 4). The four leading Theosophy authors Annie Besant (n=61), Lead beater (n=13), Westcott N=13) and Blavatsky (n=10) account for 59% (n=97) of the Theosophy books of Steiner's library (Fig. 5).

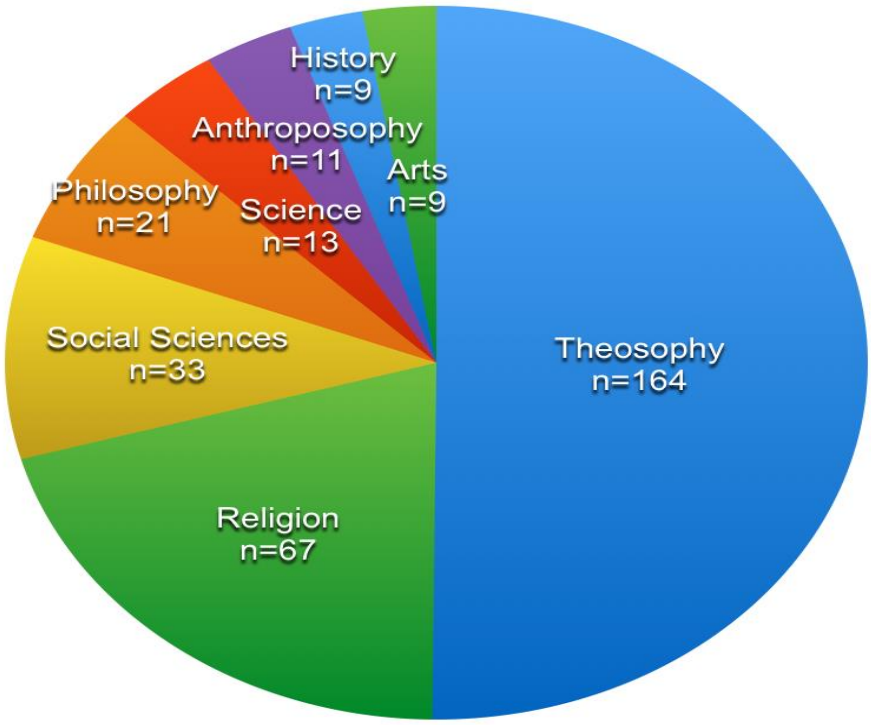
Presentation Copies (n=19): Of the 327 Anglo-books identified, 19 are inscribed presentation copies (6% of the Anglo-books). The various authors reflect Steiner's circle of acquaintances and interests. The remaining 308 Anglo-books can be taken to reflect Steiner's personal acquisitions. Nineteen of the Anglo-books are identified as inscribed to Rudolf Steiner. Of these, most are inscribed by the author (n=14), while the remainder are inscribed by the editor (n=5). Inscribed copies are noted as such in Appendix A. The five books inscribed by the editor are all works by Steiner himself and translated into English (see Appendix A: #s 277, 278, 279, 283, 285). The works inscribed by the author include works on Anthroposophy (Appendix A: #170), the Arts (#8), History (#96), Philosophy (#s 205, 206, 207, 208, 209), Religion (#s 123, 227, 304), Science (#s 178, 290) and Social Sciences (#250).

Figure 2: The Publication Dates of Anglo-Books in the Personal Library of Rudolf Steiner.



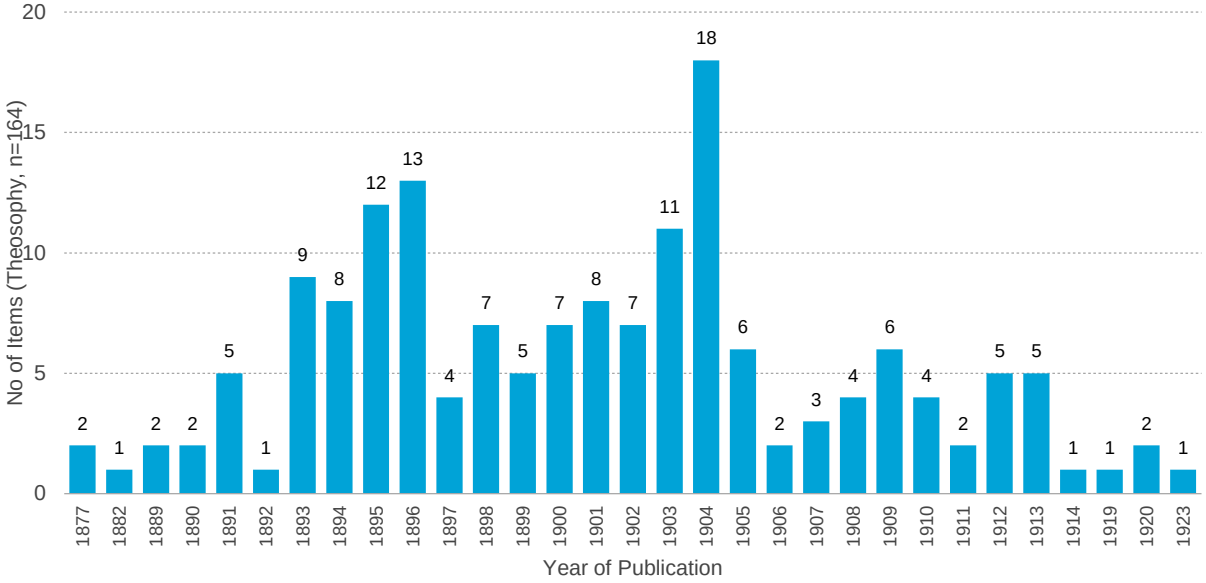
Timeline: The timeline of the publication dates of Steiner's Anglo-books stretches from 1659 and reveals a bimodal distribution (Fig. 2). There is a tail stretching back to 1831 (Appendix A #148, a history of England) with an outlier dated 1659, an obscure title exhibiting the spelling of a bygone era, Mosaic all Philosophy: Grounded upon the Essential Truth and Eternal Sapience (sic) (#140). The two decades from 1893 to 1913 account for 65% of Steiner's Anglo-library (n= 213), with local peaks in this interval at 1896 (n=18), 1900 (n=18) and 1904 (n=20). This period includes Steiner's peak involvement with Theosophy. There is a trough during the Great War (World War 1; 1914-1918) a time when there were no trips to Britain by Steiner, the publishing output of Britain (and other of the belligerent countries) was constrained by war-time shortages and the appropriation of resources for military purposes, and the interchange of Anglo-books into Germany was truncated by diminished trade opportunities. Steiner was based in Dornach, Switzerland by the time war broke out, but he continued to travel throughout Germany. The early Anthroposophy-style buildings were built in this period, such as the first Goetheanum and the Glass House at Dornach.

Figure 3: The distribution by category of Anglo-books in the personal library of Rudolf Steiner (n=327)



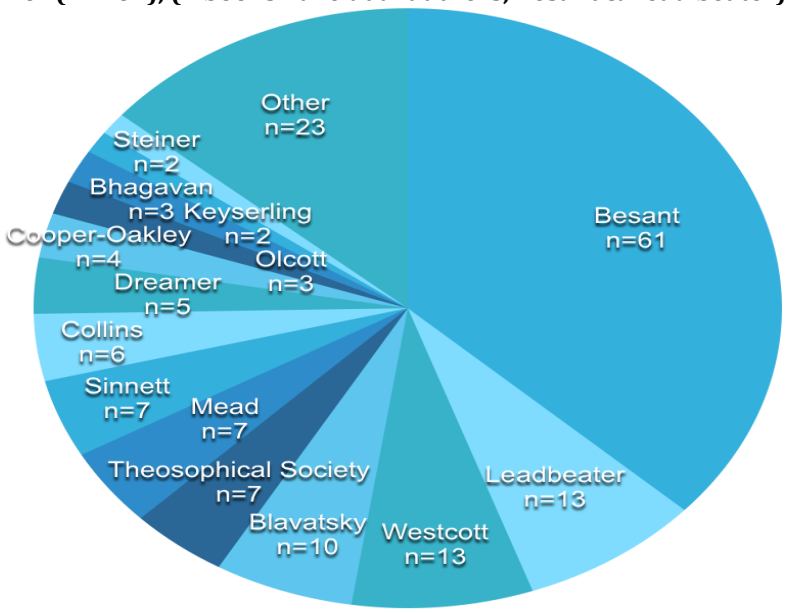
After the Great War (WW1), Anglo-book acquisitions for Steiner's library peak for the publication years of 1920 (n=18) and 1922 (n=18), and then trail off to just 5 acquisitions for 1923 (the year following the Goetheanum burning to the ground), to 3 in 1924 (#94 about Ancient Egypt, #210 a presentation copy on contemporary philosophy, #303 a Victoria & Albert Museum catalogue) (it was the year following the claimed poisoning of Steiner), and down to just one for 1925 (#95, about Ancient Egypt) (the final year of his life). There is a 1926 imprint book by Bhagawan Das (#123). The date is an anomaly given Steiner's death in 1925; this is either a posthumous addition or a transcription error. The book is a presentation copy from the author based in India with a publisher in Calcutta. This book is not listed in wordcat.org which indicates it is a very obscure title. News of Rudolf Steiner's death in 1925 was reported as far away as in the Australian press (and so most probably in the Indian press) but may have not reached Das. There are presentation copies of books by Millicent Mackenzie (1863-1942) and John Stuart Mackenzie (1860-1935) (see Appendix A) who had both spent time at Dornach, promoted Steiner's ideas on education, and Millicent was an organizer of Steiner's Oxford Conference of 1922 (Paull, 2011). There appear to be no books by L P Jacks (1860-1955), the principal of Manchester College, Oxford where Steiner conducted his first major British Anthroposophy conference following WW1 (Paull, 2010). Jacks made his college available for the Oxford Conference, had a lively interest in education, and he was a prolific author (he wrote at least 19 books) although his books rarely managed a second print run and have not stood the test of time well. There appear to be no Anglo Theosophy books inscribed by the leading Theosophy authors (viz. Besant, Lead beater, Westcott or Blavatsky).

Figure 4: The Publication Dates of Anglo-Books on Theosophy (N=164) in the Personal Library of Rudolf Steiner.



Theosophy (n= 164): Theosophy books dominate the Anglo-books of Rudolf Steiner's personal library (Figure 3). The publication dates range from 1877 to 1923 (Figure 4). Steiner was the General Secretary of the German branch of the Theosophical Society from its founding in October 1902 to 1912 (Wachsmuth, 1989). Just over half of the Anglo-books in Steiner's library are Theosophy books (164 out of 327) (Figure 3). It was Theosophy that gave Steiner his 'break', his opportunity to voice his thoughts to an engaged audience of seekers. After a decade he split with the Theosophists and founded the Anthroposophical Society in 1912 (Wachsmuth, 1989). The leading theosophists of the day are prominently represented in Steiner's library and what is clear is that he continued to actively acquire Theosophy titles for the following several decades. Leading Theosophists represented in Steiner's personal library include: Annie Besant (1847-1933) (n=61), Charles Lead beater (1854-1934) (n=13, two of these are co-authored with Besant), William Westcott (1848-1925) (n=13), Helena Blavatsky (1831-1891) (n=10), and Bhagawan Das (1869-1958) (n=4; but n=9 if we allow 'The Dreamer' (n=5) as a pseudonym of Das') (Figure 5). None of the books by Besant, Lead beater, Westcott and Blavatsky were identified as inscribed by the author. Besant writes in her book What Theosophy is that: "The justification of the Theosophical propaganda lies in the present condition of Christendom, to say nothing of the condition of Eastern lands. The wars, the labor strife, the heartbreaking poverty, the unbrotherly competition, the brutality, the prostitution, the drunkenness - all these evils are rife in a civilization that calls itself Christian. And those who love man, who seek for the progress of the race, cannot but welcome into the field as allies in their warfare against sin and sorrow those who bring in their hands the priceless weapon of a knowledge which explains man's nature and the nature of the universe, and so opens up the road to his final triumph … The first principle to grasp is the Esoteric Philosophy - spoken of as Theosophy in modern times" (Appendix A #70, c.1920s, p.2).

Figure 5: The Distribution by Author of Theosophy Anglo-Books in the Personal Library of Rudolf Steiner (N=164), (2 books have dual authors, Besant & Lead beater).



Religion (n=67): The second most populated category of Anglo-books in Rudolf Steiner's personal library is Religion (n=67) (Figure 3). The Anglo-books on Theosophy (see §3.2.3) and Anthroposophy (see §3.2.8) are dealt with separately (and are not accounted for in the Religion category). Books in this category reflect the wide-ranging interests of Steiner. Included are Anglo-titles about Christianity, Catholics, Anglicans, Jesuits, Rosicrucian's, Freemasons, Occultism, angels, incarnation, and Vedanta. There is a set of lectures to the British House of Lords by Lord Seaton on The New Religion (#262). Steiner's library contains two books by the New Age Religionist American, Mary Baker Eddy (1821-1910): Rudimental Divine Science (1898) and Science and Health: With Key to the Scriptures (1900) (Appendix A, #s 133, 134). Both books are out of copyright and are available free on the WWW from gutenberg.org. Eddy's battleground of ideas was the USA. She wrote at least 15 books, attracted many followers and founded the Church of Christ, Scientist. The headquarters is in Boston, Massachusetts. In the earlier book (#133), Eddy wrote of "Divine Science" and in the later book of 'Christian Science'. Her book Science and Health is her most influential work. In it she champions 'Christian Science'. There are numerous parallels (and many differences) between Eddy and Steiner. They both recognized the prevailing zeitgeist of the times as 'science' and sought to couple it with their personal take on spirituality; it was 'Christian Science' for Eddy, and 'Spiritual Science for Steiner. Both characterized the propagation of their ideas as a 'Movement'. Both attracted devoted followers and made some enemies along the way. Both established impressive imposing and architecturally distinctive headquarters (Eddy in Boston, Massachusetts, and Steiner in Dornach, Switzerland). Both envisioned their respective movements spreading beyond their own shores (that has been fulfilled for both to a limited extent). Eddy demonstrated in the USA that there was an appetite for New Age thinking and she harnessed fresh characterizations of Christian precepts. Steiner did something similar in Europe and may have taken some inspiration from Eddy's success (and perhaps lessons from her tribulations).

Social Sciences (n=33): Steiner's books in the Social Sciences category reveal his broad interests and his engagement with the issues of the times, with titles on social change, women, labour, economics and war (n=33) (Figure 3). The library contains five books published by the International Congress of Women which was held in London in 1899 (#163, 164, 165, 166, and 167). The Congress was convened by the International Council of Women. The first such Congresses were held in Paris in 1878. The Congresses were a kind of women-of-the-world-unite collaboration, and they aimed to secure the right to vote for women, to give women a united voice, to show solidarity, and to share campaign tactics. The Congress of 1914 was scheduled for Berlin but it was cancelled due to the outbreak of war. The women of Holland took up the initiative (relinquished by the women of Berlin) to reconvene the Congress at The Hague with the new imperative of stopping the war (rather than women's suffrage).

The sole Italian representative at The Hague Peace Congress of 1915 was the Anthroposophist Rosa Genoni (Paull, 2018c). The Great War (1914-1918) (WW1) was the catastrophe of the era and it left 18 million dead. There was a scramble to understand it, to propagandize it, to report it, and to blame-shift. Books of the time make curious reading a century later (and in the light of subsequent German and world history). Dehn's 1914 book, Truth about Germany: Facts about the War was published in New York and it was addressed to Americans (remembering that the USA was late into the war, joining on the side of the Entente only in 1917). Dehn asserted, of Germany, that: "Not one human being amongst us dreamt of war. We are a nation that wishes to lead a quiet and industrious life … you Americans. You, of all others, know the temper of the German who lives within your gates. Our love of peace is so strong … Never would a German government dare to contemplate a war for the sake of dynastic interest, or for the sake of glory … Do not believe the mischievous lies that our enemies are spreading about! … Who is responsible for the war? Not Germany!" (#124, pp. 5-10).

The German Government (1914) published The German White-Book: How Russia and her Ruler Betrayed Germany's Confidence and Thereby Caused the European War (#146). This booklet (in English) was published in Berlin and is a translation of the booklet published in German: Das Deutsche Weißbuch. This booklet reports that Russia's Tzar Nicholas urged restraint and foresaw that a prospective European war would be a "calamity". Germany's Emperor Wilhelm foresaw such a European war would be "the most terrible war it has ever seen". This booklet presents a timeline of how the war was blundered into and the apologetics of the war from the perspective of the German Government. The White-Book reported: "On June 28 [1914] the Austro-Hungarian successor to the throne, Arch-Duke Franz Ferdinand, and his wife, the Duchess of Hohenberg, were assassinated by a member of a band of Servian [=Serbian] conspirators" (#146, p.3). "We were perfectly aware that a possible warlike attitude of Austria-Hungary against Servia [=Serbia] might bring Russia upon the field, and that it might therefore involve us in a war, in accordance with our duty as allies. We could not, however, in these vital interests of Austria-Hungary, which were at stake, advise our ally to take a yielding attitude not compatible with his dignity, nor deny him our assistance in these trying days" (#146, p.4)

The White-Book continued: "We, therefore, permitted Austria a completely free hand in her action towards Servia but have not participated in her preparations" (RSA#146, p.5). "From this moment Austria was in fact in a state of war with Servia, which it proclaimed officially on the 28 of July by declaring war … We emphatically took the position that no civilized country possessed the right to stay the arm of Austria in this struggle with barbarism and political crime, and to shield the Servia against their just punishment" (#146, p.6). The White-Book quoted Russia's Tzar Nicholas writing to German Emperor Wilhelm: "An ignominious war has been declared against a weak country and in Russia the indignation which I fully share is tremendous. I fear that very soon I shall be unable to resist the pressure exercised upon me and that I shall be forced to take measures which will lead to war. To prevent a calamity as a European war would be, I urge you in the name of our old friendship to do all in your power to restrain your ally from going too far. July 29 [1914] signed: Nicolas" (#146, p.44). Germany's response: "To the Tzar: I cannot — as I told you in my first telegram — consider the action of Austria-Hungary as an 'ignominious war'. Austria-Hungary knows from experience that the promises of Servia as long as they are merely on paper are entirely unreliable. According to my opinion the action of Austria-Hungary is to be considered as an attempt to receive full guaranty that the promises of Servia are effectively translated into deeds. In this opinion I am strengthened by the explanation of the Austrian cabinet that Austria-Hungary intended no territorial gain at the expense of Servia.

I am therefore of the opinion that it is perfectly possible for Russia to remain a spectator in the Austro-Servia war without drawing Europe into the most terrible war it has ever seen. I believe that a direct understanding is possible and desirable between Your Government and Vienna, an understanding which — as I have already telegraphed you — my Government endeavors to aid with all possible effort. Wilhelm 29 July [1914] (#146, p.45) Austria-Hungary declared war on Serbia on 28 July 1914. Germany declared war on Russia on 1 August. Germany invaded neutral Belgium on 4 August. The point of no return had been passed and interlocking treaties and militaristic bombast tipped others into the maelstrom which engulfed the world, until 1918. Steiner did not take a pacifist stance or a condemnatory stance during the war. He published his own Thoughts during the Time of War (Steiner. 1915). It was not out of step with published German Government views. Steiner wrote that "The warrior is steeled by the awareness that he is fighting for the most precious

good that the earth has to give to mankind … out of blood and death, the development of mankind will rise to aims for which the sacrifices were necessary, and which will justify them" (p.3).

Steiner's library contains three copies of Sergei Nil us The Jewish Peril: The Protocols of the Learned Elders of Zion (Appendix A, #s 230, 231, 232). The book was controversial in its day, and probably remains so today, more than a century after its publication. The Preface addressed claims that it was a forgery. The Preface of the Fifth edition states: "it must be borne in mind that Nil us first published the Protocols in 1902; that the edition from which our translation was made was published in 1905, and that the actual copy which was used in the translation is now in the British Museum, having stamped on it the date of its reception, 10th August, 1906. There is no getting over these dates, which prove that the World War, the crucifixion of Russia, strikes, revolutions and assassinations, have all taken place 'according to plan.' And that plan was not the plan of Germany, nor the plan of England, nor the plan of any other nation except the Nation of Jewry, with its secret language and secret government — The Hidden Hand — now, at length, completely revealed in the Protocols, which, it need hardly be said, were never intended for Gentile eyes to see" (Preface in Nilus, 1921b, p.2). Consistent with the claim of a copy in the British Library, there is a copy, in Russian, of the Protocols (viz. Nilus, 1905). There is a further copy, in the British Library, also in Russian, published several years later, but still prior to the Great War (viz. Nilus, 1911). When the Protocols appeared in English its authenticity was attacked (e.g. by Wolf, 1920) and defended (e.g. by the author Nilus, 1921a). The Preface declared that: "Of course, Jews say the Protocols are a forgery. But the Great War was no forgery; the fate of Russia is no forgery; and these were predicted by the Learned Elders as long ago as 1901. The Great War was no German war — it was a Jew war. It was plotted by Jews, and was waged by Jewry on the Stock Exchanges of the world. The generals and the admirals were all controlled by Jewry.

The revelations of the Jutland Battle and its sequel give one small example of how the Jews conducted the war, whether by land or sea; how they secured the 'profits' of the war for Jews, and how they obtained controlling power for Jewry over all the belligerents" (Preface in Nilus, 1921b, p.2). During the years of WW1, Steiner continued to travel and lecture, but he did not venture beyond the bloc of the Central Powers. Civilian travel was restricted during the course of the war and, travelling on an Austrian passport Steiner would have been officially confined to the Central Power bloc and excluded from the countries of the Entente. During WW1, Steiner lectured in Germany (Berlin, Stuttgart, Nuremberg, Elberfeld, Dusseldorf, Munich, Hamburg, Kassel, and Leipzig), and in Austria-Hungary (Vienna, Prague and Linz). In neutral Switzerland most lectures were at Dornach, with others at Bern, Liestal and St Gallen. His first visit to Britain after the war was in April 1922 to Stratford-on-Avon (Paull, 2013; Villeneuve, 2004). Just a decade after Steiner's death, the Anthroposophy Society was banned in Germany (in 1935) and the Waldorf schools in Germany were progressively closed down.

Philosophy (n=21): Steiner's Anglo-books on Philosophy (n=21) (Figure 3) include four books inscribed by the author John Stuart Mackenzie, British philosopher and Anthroposophist (#s 205, 206, 207, 208) and one by his wife Millicent Mackenzie on Hegel (#209). Steiner's library hosts a copy of the Critical and Miscellaneous Essays (1888) (#98) by Scottish philosopher and historian Robert Carlyle (1795-1881). The book is dominated by Germanic themes; it includes five essays on Goethe, one on Schiller, and twelve other essays variously on German poets, writers, history and literature. There are two books about Plato (#s 136, 202), one on Yoga Philosophy (#305), and there are Volumes 1 and 2 of Pryns Hopkins' (1919) Philosophy of Helpfulness (#s 161, 162).

Science (n=13): The Anglo-books on Science (n=12) (Figure 3) are an eclectic mix ranging across a broad spectrum of the sciences. The works include Roger Bacon's The Opus Majus, Volumes 1, 2, 3 (English & Latin), written in the thirteenth century (Appendix A, #s 5, 6, 7). There are other works on light and colour (#4), biology and personality (#11), botany (#104), science fiction (#s 156, 157,158), iridology (#178), astronomy #182), cosmology (#290), geology (#292), and physics (#323).

Anthroposophy (n=11): There are 11 books on Anthroposophy (Figure 3) in Steiner's library. Ten of these are by Steiner himself they are Anglo-editions, translations of works previously published in German. The remaining Anthropop-book is by his acolyte and translator, George Kaufmann, Fruits of Anthroposophy: An Introduction to the Work of Rudolf Steiner (#170). George Kaufmann was a remarkable linguist who

translated over a hundred of Steiner's lectures to English-speaking audiences, beginning with the teachers conference at Dornach in December 1921 and quickly followed by the Stratford-on-Avon and Oxford visits of 1922 (Adams, 1958, p.11; Paull, 2011, 2013) and translated Steiner's writings into English, including The Agriculture Course (Steiner, 1924a). Kaufmann was the son of an Australian father and an English mother. He was born on the oilfields of Eastern Europe and educated at boarding school in England and took a degree in chemistry at Cambridge University. Kaufmann was a Quaker, a pacifist, and in 1940 changed his name to Adams, his mother's maiden name. In Fruits of Anthroposophy, Kaufmann writes: "This book is an attempt to meet a need that is making itself more and more widely felt … The number of those who have come to respect this great thinker … is considerable. In recent years the Anthroposophical Movement of which he is the leader has come into evidence as an active spiritual force in European life, a Centre of fruitful pioneering work in almost every sphere … considerable interest has lately been aroused on this side of the Channel, in America, and in the Colonies" (Kaufmann, 1922, p. v).

History (n=9): Steiner's nine Anglo-books in the History category (n=9) (Figure 3) include Ancient Egypt (n=3: #s 93, 94, 322) and FG contemporary biography (n=3). There are single works on the histories of England (#148), Poland (#203), and the Rosicrucian's (#321). There are three works of contemporary biography (#s 96, 183, 291). Emily Cape's account of Lester F Ward (#96) (inscribed to Steiner by the author) has the hallmarks of a work of adulation, if not infatuation: "For several years I was closely associated with DR Ward as co-editor … Month after month I worked with him … I found in the wonderful and beautiful friendship thus developed a revelation of qualities of mind and heart which could be perceived only through intimate and harmonious relations. Naturally I learned much about the man and of his life. From the many letters and much data in my possession I shall be able to offer a more intimate portrait … and many of his thoughts never before in print. Dr. Ward's emotional nature was sublime, and only one knowing him through the heart as through the brain, realized how the following pages will reveal that nothing is truer of Lester F. Ward than that he had: 'The mind of a sage, the heart of a woman, the soul of a poet'".

At the outset, Rabindranath Tagore in his My Reminisces (#291) distances his flavor of autobiography from history, he writes: "I know not who paints the pictures on memory's canvas; but whoever he may be, what he is painting are pictures; by which I mean that he is not there with his brush simply to make a faithful copy of all that is happening. He takes in and leaves out according to his taste. He makes many a big thing small and small thing big. He has no compunction in putting into the background that which was to the fore, or bringing to the front that which was behind. In short he is painting pictures and not writing history (p.1). Countess Marie Larisch in My Past (#183) presents an autobiographical account of various goings on, intrigues and scandals in the Bavarian and Austrian Royal families: "I was educated at home and hated all of my many excellent and long-suffering governesses. I learned to fence and to ride six horses a day, and I was certainly to all intents and purposes a very boyish girl. After the war of 1866 we went to live in Munich, first at a house in the town, and then at my father's own palace; there more teachers worried me and were worried by me, but I succeeded in acquiring a fair knowledge of Latin" (p.6).

Arts (n=9): There are a small number of Anglo-books in the Arts category (n=9) (Figure 3). Most of these are catalogues and guides, including exhibition catalogues (n=6). These include: British Museum: A Guide to Babylonian and Assyrian Antiquities (#87), and catalogues from the Victoria & Albert Museum (#303), the Wallace Collection of Old Masters (#306), the exhibition of Russian Theosophist artist Nicholas Roerich (#86), and a Hollyer catalogue of reproductions (#159). Two of Steiner's Anglo-books on the Arts are lectures. There is a lecture on painting with sound, presented to the Linnean Society, London (#8) and an Oxford Professor of Poetry's rather turgid lecture titled The Art of Poetry (#171). There is Walter Pater's The Renaissance: Studies in Art and Poetry (1909) (#243). Pater writes that: "Many attempts have been made by writers on art and poetry to define beauty in the abstract, to express it in the most general terms, to find a universal formula for it. The value of these attempts has most often been in the suggestive and penetrating things said by the way.

Such discussions help us very little to enjoy what has been well done in art or poetry, to discriminate between what is more and what is less excellent in them, or to use words like beauty, excellence, art, poetry, with a more precise meaning than they would otherwise have. Beauty, like all other qualities presented to human experience, is relative; and the definition of it becomes unmeaning and useless in proportion to its

abstractness. To define beauty, not in the most abstract, but in the most concrete terms possible, to find, not a universal formula for it, but the formula which expresses most adequately this or that special manifestation of it, is the aim of the true student of aesthetics" (Preface, #243). Pater continues: "What is important, then, is not that the critic should possess a correct abstract definition of beauty for the intellect, but a certain kind of temperament, the power of being deeply moved by the presence of beautiful objects. He will remember always that beauty exists in many forms.

To him all periods, types, schools of taste, are in themselves equal. In all ages there have been some excellent workmen, and some excellent work done. The question he asks is always: —In whom did the stir, the genius, the sentiment of the period find itself? where was the receptacle of its refinement, its elevation, its taste? 'The ages are all equal,' says William Blake, 'but genius is always above its age.'" (Preface, # 243) Steiner was keenly interested in art. He wrote: "anthroposophy is not only a theoretical conception of the world, but from its nature gives rise to a special style of art" (quoted in Wachsmuth, 1958, p.188). Steiner developed his own distinctive styles of art (Paull, 2016), architecture (Steiner, 1914), sculpture (Selg, 2009), and dance (Spock, 1980; Steiner, 1923). Steiner encouraged visiting artists to paint in the 'Anthroposophic style' (Paull, 2016). He designed many buildings at Dornach, Switzerland, and his architectural masterpiece is the remarkable Goetheanum. It is Steiner's creation, the Goetheanum that perhaps best epitomizes what Pater wrote in 1909 of as "genius" that "is always above its age" (#243).

4. Discussion and Conclusion

Despite the public persona of Rudolf Steiner as thoroughly German, the present paper reveals that his library, while predominantly German as we would expect, also contained some hundreds of books in English as well as other languages less well represented. The Anglo-books identified in the present study reveal a Rudolf Steiner very engaged with the Anglo-sphere of publishing. The wide variety of topics reveals a Steiner whose intellectual curiosity ranged widely. His remarkable and extensive personal collection of Theosophy imprints reveals his abiding interest and curiosity in all things Theosophy. The 327 books identified in the present study should be regarded as a lower bound of the Anglo-books in Steiner's personal library; for reasons of constraints of time and access it may be that some Anglo-books of the library have escaped this listing, and that offers an opportunity for supplementary further research. Perhaps a personal library, acquired over a lifetime, is a window to the soul. In any event, there are conclusions that can be drawn from the present tally of Steiner's English language books, and from these Anglo-holdings within the context of his total library: Firstly, it is clear that Steiner was actively engaged with Anglo acquisitions right up to the time of his passing.

His books include items published up to and including the final year of his life (viz.1925). Secondly, it is clear that Steiner preferred a book translated into his native language of German where that was available. Where no such translation was available he acquired books of interest in the original language. Thirdly, Steiner maintained a keen interest in Theosophy right to the end of his life. His departure from the Theosophy Society and his founding of the Anthroposophical Society as a breakaway entity in 1912 appears to have not diminished in any way his interest in Theosophy and the Theosophists. The Theosophists turned eastward in their spiritual quest, drawing heavily on Hindu and Vedic thought and establishing their headquarters in Adyar, Madras (now Chennai, capital of Tamil Nadu state, India). Steiner's teachings drew heavily on Christian themes but he also drew on Vedic traditions and Sanskrit terminology. There were many lectures on karma, he talked of the world as Maya (illusion), and he would prescribe a mantra for a seeker. Sanskrit terms used by Steiner include kamaloca, kundalini and pralaya. Steiner also talked of reincarnation, a core concept in the canon of Anthroposophy, but an idea much more firmly embedded in Eastern thought rather than Christian tradition.

Fourthly, a consideration of Steiner's library can, and ought to, inform future biographers and revise current analyses. For example, Landenberg (2017, p.471), writes of the Treaty of Versailles (of 1919) that: "To challenge this unilateral assignment of guilt [to Germany], Steiner demanded … 'an unvarnished' report of the events leading up to the outbreak of war … there should be a simple report of what took place, step by step, hour to hour. Such a report … would also show just how surprised everyone was by the sequence of events … Rudolf Steiner hoped … that a straightforward documentation of the events would show that the initiative to begin a war had not originated in Germany". What purports to be just such a report was in Steiner's library

(#146). It offers no support for Landenberg's contention of "just how surprised everyone was by the sequence of events". Fifthly, the diversity of books reveals the breadth of Steiner's interests and engagement with a broad spectrum of topics including spiritual matters, religion, arts, science, politics, and history. These topics were woven into his lectures and books. Sixthly, the Anglo-books offer a small window, or perhaps just a key-hole glimpse, into the mind of Rudolf Steiner. What is clear is that further research into Steiner's personal library is warranted and will reveal fresh insights into the life and times of this remarkable individual. Rudolf Steiner's personal library was collected over five decades, spanning the closing decades of the nineteenth century and the opening decades of the twentieth century.

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The hospitality and kind assistance of the staff and archivists of the Rudolf Steiner Archive (Rudolf Steiner Archiv) at Dornach, Switzerland, is acknowledged with thanks. It is, instead, a most personal and idiosyncratic collection. What makes it particularly interesting, and worthy of the present study as well as further study, is (a) its owner and (b) the fact that it has been 'frozen-in-time' and preserved intact for the best part of a century after the owner's death. This library cannot be regarded in any way as a typical personal library of the era.

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Appendix A: List of Books in English in the Library of Rudolf Steiner

#1. American Section of the Theosophical Society. (1909). A Primer of Theosophy: A Very Condensed Outline. Chicago: The Rajput Press 1909 (RSA# O 652) (Theosophy).
#2. American Section of the Theosophical Society. (1909). A Primer of Theosophy: A Very Condensed Outline. Chicago: The Rajput Press 1909 (RSA# O 652a) (Theosophy).
#3. Archer, W. (1916). Colour-Blind Neutrality. London - New York - Toronto: Hodder & Stoughton (RSA# W 007) (Social Sciences).
#4. Babbit, E. (1896). The Principles of Light and Color (New Jersey - London: Edwin Babbit (RSA# O 021) (Science).
#5. Bacon, R. (1900). The Opus Majus: Volume I. London - Edinburgh - Oxford: Williams & Norgate (RSA# P 0036) (Science).
#6. Bacon, R. (1900). The Opus Majus: Volume II. London - Edinburgh - Oxford: Williams & Norgate (RSA# P 0037) (Science).
#7. Bacon, R. (1900). The Opus Majus: Volume III. London – Edinburgh – Oxford: Williams & Norgate (RSA# P 0038) (Science).
#8. Bagley, L. (1922). Painters of Pictures in Sound. London: Simpkin, Marshall, Hamilton Kent & Co Ltd (RSA# L 007; Inscribed to Rudolf Steiner by the author) (Arts).
#9. Barley, A. (1909). The Rationale of Astrology. London: Lyncroft Gardens (RSA# O 024) (Religion).
#10. Bathurst, L. (nd). Manifesto of the MMM ((Mysteria Mystica Maxima) London: Ballantyne Press (RSA# O 024a) (Religion).
#11. Berman, L. (1922). The Glands Regulating Personality. New York: Macmillan (RSA# Me 026) (Science).
#12. Besant, A. (1882). Eyes and Ears. London - Benares: Freethought Publishing Company (RSA# O 418) (Theosophy).
#13. Besant, A. (1891). 1875-1891: A Fragment of Autobiography. London: The Theosophical Publishing Society (RSA# O 401) (Theosophy).
#14. Besant, A. (1891). 1875-1891: A Fragment of Autobiography. London: The Theosophical Publishing Society (RSA# O 401a) (Theosophy).
#15. Besant, A. (1891). In Defence of Theosophy. London - New York - Benares - Madras: The Theosophical Publishing Society (RSA# O 424) (Theosophy).
#16. Besant, A. (1892). The Place of Peace. London - New York - Madras: The Theosophical Publishing Society (RSA# O 445) (Theosophy).
#17. Besant, A. (1893). An Autobiography. London: T. Fisher Unwin (RSA# O 402) (Theosophy).
#18. Besant, A. (1893). Theosophy in Questions and Answers. London - New York - Madras: The Theosophical Publishing Society (RSA# O 470) (Theosophy).
#19. Besant, A. (1894). The Meaning and the Use of Pain. London - New York - Madras: np (RSA# O 436) (Theosophy).
#20. Besant, A. (1894). Vegetarianism in the Light of Theosophy. London - New York - Madras: The Theosophical Publishing Society (RSA# O 481) (Theosophy).
#21. Besant, A. (1895). An Introduction to Theosophy. London - New York - Benares - Madras: The Theosophical Publishing Society (RSA# O 426) (Theosophy).
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The Demand of Urban Consumers for Safe Pork in the Vietnamese Mekong Delta

Huynh Viet Khai*, Tran Thi Thu Duyen & Huynh Thi Dan Xuan
School of Economics, Can Tho University, Vietnam
hvkhai@ctu.edu.vn

Abstract: This study applied the contingent valuation method to analyze the consumers' demand for the proposed safe pork. The data was collected by face-to-face interviewing 884 urban households in the Vietnamese Mekong Delta. The results revealed that the majority of consumers (about 64%) paid attention to the proposed safe pork. Their willingness to pay was about VND 176,000 ($ 7.65) per kg, nearly double compared to the market price of conventional pork. The results showed that the respondents who had higher household income, larger proportion of elderly and children in the family, paid higher price of a conventional pork, and get more knowledge score on the safe pork are more likely, while the respondents who have more number of family members are less likely to pay for the proposed safe pork.

Keywords: *Contingent valuation method, Safe pork, Consumer preferences, Willingness to pay*

1. Introduction

In recent years, the living standard of Vietnamese has been gradually improved. Average income per capita in 2014 is $ 2,028 per year, rising 6.31% compared to 2013[1]. Since then the demand for food has also increased. The International Business Monitor forecasts that Vietnam's food consumption in 2011–2016 continue to grow at 5.1% per year, estimated at VND 538.4 million ($ 29.5 billion). Besides vegetables, meat is major food in the meal of Vietnamese families, so the consumption of pork products accounts for 75% of the annual demand for meat. Therefore, the domestic pig breeding industry has constantly improved and developed in order to meet the needs of domestic consumers. In the first six months of 2015, the total amount of pork supplied to the market reach 2.51 million tons, approximate 3.66% increase compared to the same period in 2014[2]. Although the quantity of pork supplied increases gradually, the quality of pork seriously declines because slaughtering process does not meet veterinary hygiene standards, the process of transportation and storage of the meat does not guarantee food safety[3]. Thus pork is infected with bacteria and nutrition in pork is degraded. In addition, injecting water into pork to increase the weight also occurs in recent years. Hence consumers not only buy underweight pork but also face the risk of unsafe food[4].

Moreover, many slaughterhouses also inject a sedative (Prozil fort, Combitress) on pigs prior to slaughter for the purpose of easier slaughter and keeping pork look softer and nicer[5]. Besides, in the process of raising many ranchers use antibiotics, growth drugs to achieve maximum profit in the shortest time. These meats contain harmful substances, which banned from use in livestock production, can cause a number of diseases such as hypertension, respiratory failure, intestinal disease, even cancer and adversely affecting the development of children[6]. According to the World Health Organization, every year worldwide occurs about 40 million cases of poisoning. Half of all deaths in the world are related to food, foodstuff. Especially, the Asia - Pacific region accounted for 50%. Because of the extremely serious consequences of using contaminated pork, safe pork should be necessary for all consumers. However, safe pork concept is still relatively new to the consumers in Vietnam. The approach of the contingent valuation method (CVM) to estimate consumers' demand for safe products is widely used in the world. A study by Miller & Unnevehr (2001) on consumers' demand and their willingness to pay (WTP) for a safe pork showed that most consumers in the US were interested in the issue of safe pork and their trust in safe pork products certified by the US Department of Agriculture more than the products certified by other organizations.

[1] Nghia, 2015
[2] Hieu, 2015
[3] Dinh, 2015
[4] Ngan & Chien, 2015; Bach, 2015
[5] Ngan & Chien, 2015; Thai & Minh, 2015
[6] Anh, 2015; Uyen, 2015; Han, 2015

Therefore, up to 81.4% of consumers accepted to pay more for pork products with this safe certification. Another study in Georgia done by Wong (2009) showed that 53% of consumers agreed to pay higher for environmentally friendly beef. He found that respondents with higher education, previous history of purchasing branded goods and how more concerned they were about the environment were more likely to buy beef commodities produced with environmentally sound techniques. In Vietnam, most of the previous studies used the CVM to estimate WTP for biodiversity conservation or the economic value of recreation. The study of Dan & Duyen (2010) estimated households' willingness to pay in Can Tho city for Sarus Crane conservation. They agreed to contribute about VND 12,222 per household a month for the proposed conservation program. In addition, the study revealed those bid levels, respondent's education, household income, knowledge of respondent about the current status of Sarus Crane and respondent belief in the success of conservation program are factors affecting on the probability of willingness to pay. Another study done by Khoi & Ngan (2014) showed that Mekong Delta residents were willing to contribute about VND 9.5 million annually for the biodiversity conservation program in Bac Lieu bird garden.

There are few previous studies related to safe products in Vietnam. Simmons and Scott (2008) determined the agro-food system sustainability by summarizing the trends and prospects for organic agriculture in Vietnam. The results showed that organic production in Vietnam was mainly demanded by exporters, not due to the environmental concerns of domestic consumers. Vietnamese consumers paid high attention to food safety and food quality, but the development of organic products in the country was not so much. Dam et al. (2012) showed the unimportant role of organic farming in the Vietnamese agriculture sector and a lack of government policies to encourage the development of organic farming. Hai et al. (2013) recognized that fifteen percent of the consumers used to consume organic vegetables in Hanoi and they were willing to pay a premium of 70% higher for organic vegetables. A recent study of Khai (2015) showed that urban residents in the Vietnamese Mekong Delta were willing to pay VND 12,733 for 1kg of safe vegetables, which was 59% higher than conventional vegetables in the market. The study also pointed out that those who cared about health issues and food safety, those who had high income and high education would be willing to pay more for safe vegetables.

To provide a larger picture or more information on safe products, this study applied the approach of CVM to determine consumer demand for the proposed safe pork by analyzing the interview data of urban residents in the Vietnamese Mekong Delta. The results of the study might be useful information to suggest some policy implications for promoting and developing the future market of the safe pork in this region. The paper is designed as follows. The following section introduces the approach of CVM to estimate the consumer demand for the proposed safe pork and the descriptions of data collection. After that, the results and some discussion on urban consumer demand for safe pork are reported. Finally, the conclusions are withdrawn from the results of the study.

2. Methodology

The CVM is applied to estimate the demand for the proposed safe pork in this study. Robert (1963) firstly applied the CVM to identify the benefits of outdoor recreation in Maine backwoods and then Ridker (1971) used to solve the problems of air pollution. After that, many economists applied the CVM to determine the benefits of many goods and services such as recreation, hunting, water quality, decreased mortality risk from a nuclear power plant accident and toxic waste dumps (Wattage, 2002). Despite some arguments on the correction of CVM results, most economists accepted that the results of the CVM were valuable and reliable if this method was carefully designed or constructed (e.g., Yao & Kaval, 2008; Venkatachalam, 2004; Carson et al., 2001). Hanemann & Kanninen (1998) assumed that a respondent was requested to choose a change from Q^0 to Q^1 (Q^1 presents the value of non-existent goods, such as safe pork, and assume Q^1 is preferred to Q^0). A utility function is described as follows, $V = V(P, Q, I, Z, \varepsilon)$, where P is the price vectors of all available market goods, I is the respondent's income, Z is the vectors of respondent's social - economic characteristics, and ε is the error term of utility function.

Then, the respondent is requested if he or she is willing to pay t amount to obtain Q^1, the respondent will say "yes" if:

$$Pr(Yes) = Pr\{V(P, Q^1, I - t, Z) + \varepsilon_1 \geq V(P, Q^0, I - 0, Z) + \varepsilon_0\} \quad (1)$$

$= Pr\{V(P, Q^1, I - t, Z) - V(P, Q^0, I - 0, Z) + \varepsilon_1 - \varepsilon_0 \geq 0\}$

where, ε_o and ε_1 are undeterministic components of utility function, with the expected value is zero and independent and identically distributed (*i.i.d*). If we consider $\Delta V = V(P, Q^1, M - t, Z) - V(P, Q^0, M - 0, Z)$ *and* $\gamma = \varepsilon_1 - \varepsilon_0$, equation (1) becomes:

$$Pr(Yes) = Pr(\gamma \geq -\Delta V) = 1 - F_\gamma(-\Delta V) = F_\gamma(\Delta V) \quad (2)$$

where $F_\gamma(\Delta V)$ is Cumulative distribution function (cdf) of maximum willingness to pay.

The mean and median of willingness to pay in the CVM are estimated based on the constant of regression, the coefficient of *BID* and the coefficients of other variables such as awareness, attitude and socioeconomic characteristics. To identify factors influencing the WTP in CVM, the approach of Probit and Logit model are popularly applied. This study applies a Logit model with the estimated formula as follows,

$$Pr(Yes) = F_\gamma(\Delta V) = \frac{1}{1+\exp(-\Delta V)} = \frac{1}{1+\exp -(\alpha + \beta_1 BID + \beta_2 X)} \quad (3)$$

$$Pr(Yes) = Pr(R_k = 1) = Pr(\gamma_k \leq \Delta V_k) = F_\gamma(\Delta V_k) \quad (4)$$

$$Pr(No) = Pr(R_k = 0) = 1 - Pr(\gamma_k \leq \Delta V_k) = 1 - F_\gamma(\Delta V_k)$$

Hence, log – likelihood function is constructed as follows,

$$logL = \sum_{k=1}^{N}\{R_k \ln(F_\gamma(\Delta V_k) + (1 - R_k)\ln(1 - F_\gamma(\Delta V_k))\} \quad (5)$$

With the assumption of linear correlation, the mean and median WTP are equal and identified by following equation:

$$Mean\ WTP = Median\ WTP = -\frac{(\hat{\alpha} + \widehat{\beta_2}\,\bar{X})}{\widehat{\beta_1}} \quad (6)$$

Data Collection

Face-to-face interviews with urban residents in the Vietnamese Mekong Delta was conducted in 2016 and divided into two phases. The first phase is a pilot survey to check the appropriateness of the questionnaire as well as train interviewers. In the second phase, a survey with 884 urban respondents was done in the seven provinces of the Vietnamese Mekong Delta (Can Tho, Vinh Long, Hau Giang, Kien Giang, Soc Trang, Ca Mau, Bac Lieu) with random sampling method. In the questionnaire, the benefits of the proposed safe pork were introduced before CVM question was asked. It was assumed that the proposed safe pork that meets the standards of food safety and certified by a prestigious Veterinary Department was produced and sold in the market and its quality is similar to a conventional one. Respondents were asked to accept to pay a higher price for the proposed safe pork compared with the price of conventional one supposed to be VND 90,000 ($3.91) per kg[7]. Each respondent was asked if he/she would be willing to buy the proposed safe pork at a given bid value and the answer was 'yes' or 'no'. Five different bid values[8] are proposed as VND 110,000, VND 130,000, VND 150,000, VND 170,000 and VND 190,000 per kg, which are equal to the values in US dollars[9] of $ 4.78, $ 5.65, $ 6.52, $ 7.39 and $ 8.26, respectively.

3. Results and Discussion

To assess respondents' knowledge about the production process as well as the current consumption of pork, a series of statements about unsafe food in the production and consumption of pork was presented. The awareness of respondents about this issue are presented in Table 1. The results in Table 1 reveal that most consumers now regularly updated information on the issues of food safety in general and the troubles in the production and consumption of pork in particular. Therefore, consumers lose confidence in the quality of pork in the market, even some of them decrease the amount of pork consume and switched to the consumption of alternative products. Hence, if safe pork products that ensure all the criteria as above assumptions appear in the market, then the products will get more support from consumers. After answering questions related to the knowledge of the safe pork, a scenario was shown to respondents that the safe pork would appear in the market and the product meets the criteria of food safety and would be good for consumer's health. Then, the CVM question was asked that whether the respondent was willing to buy the

[7] The price is identified by averaging the prices of all conventional pork products at the time of study.
[8] These are mean prices for all kinds of safe pork products
[9] 1 USD = 23,000 VND

proposed safe pork at a higher price than conventional pork in the current market or not. The number of respondents agrees to pay for the safe pork at given prices are shown in Table 2.

Table 1: Respondents' Knowledge About Safe Pork Issues

Statements	Unknow	Know a little	Know a lot
The current processes of pig slaughter in most slaughterhouses do not meet the hygiene standards set by the Veterinary Department, quarantine stages before and after slaughtering are loose[10]	194 (21.95%)	366 (41.4%)	324 (36.65%)
Current pork quality is not guaranteed because farmers use special food to gain weight during the breeding process; sedative and water injection into the pigs before slaughtering[11]	81 (9.16%)	349 (39.48%)	454 (51.36%)
Pork origin is unclear because the poor quality of pork smuggled across borders occurs regularly	275 (31.11%)	360 (40.72%)	249 (28.17%)
The poor quality of pork is also used for producing a variety of other products such as sausages, rolls which negatively affect the consumer health[12]	188 (21.27%)	386 (43.67%)	310 (35.06%)
In the preservation of meat during sale time, the meat is often salted by saltpetre and borax to keep fresh and beautiful color, which does not guarantee food safety standard[13]	112 (12.67%)	346 (39.14%)	426 (48.19%)

Source: Surveyed data, 2016

The results from Table 2 show that 64% of respondents agree to pay for the safe pork, while the remaining 36% of respondents did not agree to pay for this product. The rate of respondents not willing to pay is a relatively high and majority distributed to the price of VND 170,000 and VND 190,000. In particular, at the lowest price of VND 110,000, there are 83% of respondents agreeing to pay. There are 77% and 67% of respondents agreeing to pay at the price of VND 130,000 and VND 150,000 respectively. The rate of respondents willing to pay continue to decrease to 54% and 41% when the price increase to VND 170,000 and VND 190,000 respectively. Generally, the numbers of respondents who agree to pay decrease when the prices increase. This result is entirely consistent with the economic theory.

Table 2: Consumers Willing to Pay or Unwilling to Pay for the Proposed Safe Pork

Bid levels	No. Observations	Willing to pay		Unwilling to pay	
		Frequency	Percent (%)	Number	Percent (%)
110,000	177	147	83	30	17
130,000	177	137	77	40	23
150,000	177	118	67	59	33
170,000	176	95	54	81	46
190,000	177	73	41	104	59
Total	**884**	**570**	**64**	**314**	**36**

Source: surveyed data, 2016

Table 3 presents the reasons why respondents disagree to pay for safe pork. Most of all respondents (82.17%) are not willing to pay for the safe pork because they could not afford to pay for the given price, which was too higher than the price of conventional pork in the market. More than 50% of respondents do

[10] Dinh (2015)
[11] Ngan & Chien (2015)
[12] Anh (2015)
[13] Nguyen (2014)

not want to pay for the following reasons: they declared that the standard of safe meat was just an excuse to raise the price; they could not distinguish whether it was a safe meat or not; they did not need to pay more for the safe pork because they thought almost foods in the market were contaminated or poor quality food. Moreover, 30.57% of respondents did not accept to pay because they did not believe that the safe pork would be of better quality than other conventional pork. Most previous studies suggest that the WPT is influenced by some social and economic factors such as income, age, gender and occupation. This study proposed some variables affecting the willingness to pay for the safe pork and the descriptive statistics of these variables are introduced in Table 4.

Table 3: Reasons for Consumer's Unwillingness to Pay

Reasons	Number	Percent (%)
Do not distinguish whether it is a safe product	166	52.87
Cannot afford to pay for this price	258	82.17
Meat safety standards is just an excuse to raise the price	170	54.14
No need to pay more for this product	162	51.59
Do not believe the safe pork products will have better quality than other common pork products	96	30.57
Others	19	6.05

Source: surveyed data, 2016

Descriptive statistics in Table 4 shows that the average household income of respondents is at VND 10 million per person a month. On average, each household consumes 1.8 kg pork per week. Nearly 73% of respondents have dependents and 22% of respondents are housewives. The average age of the household head is 45 and 49% of respondents have an education level of college or higher. Their knowledge score (3 points) is rather high, revealing that most households know clearly the information on unsafe pork issues. Currently the respondents purchased an average price of conventional pork in the market is around VND 78,500 per kg. About 6% of respondents decided not to pay for other reasons such as the production of safe food is an obligation of the producer, the government should subsidize this product this is a task of the authorities.

Table 4: Descriptive Statistics of Variables in the Logit Model

Variables	Description	Mean	Standard deviation
Y	Agree to pay for the proposed safe pork (1= yes, 0= no)	0.644	0.479
BID	Price of the proposed safe pork (thousand VND/kg)	149.977	28.208
INCOME	Household income (million VND/month)	10.081	6.365
PORK VOLUME	The average volume of consumed pork (kg/week)	1.784	1.243
DEPENDENT_RATE	The proportion of the elderly and children in the family	0.726	0.446
AGE	The age of the household head (years)	44.414	12.684
HIGH EDUCATION	Dummy variable, 1= if the head completed college or higher, 0 = others	0.490	0.500
HOUSEWIFE	Dummy variable, 1= if the head is a housewife, 0 = others	0.219	0.414
PRICE_CO_PORK	Price of conventional pork (thousand VND/kg)	78.551	11.088
KNOWLEDGE ψ	Total score of the knowledge question about safe pork (points)	3.016	1.317
FAMILY NUMBERS	Numbers of family member (persons)	4.581	2.199

Note: ψ Each respondent was asked 5 questions about the status of current production and consumption of pork presented in Table 1. The respondent would be scored 1 point if said "Yes, I know a lot" or "Yes, I know a little", and 0 if said "I do not know"
Source: surveyed data, 2016

Table 5 shows Logit results of consumer's willingness to pay for the safe pork. Model 1 is a Logit regression with only one independent variable (*BID)*, while the Logistic regression in Model 2 including the variables of respondent's characteristics and other important factors influencing the probability of WTP for the safe pork. The results show that the correct prediction of the first model is 67.99% and the second model is 70.81%. These numbers suggest that all two models are adequate and acceptable. The study also shows the absence of multicollinearity among the independent variables in these models because the correlations among independent variables are less than 70 percent (Khai and Yabe, 2013; 2015). The results show that the average willingness of consumers in Model 1 is VND 177,000 per kg, and Model 2 is VND 176,000 per kg. Two Logit regressions indicate that the *BID* variables are negative and significant at the 1% level, which means that the higher the VND amount the respondents are asked to pay, the lower the probability that the respondents accept to pay for the safe pork.

Table 5: Logit Results of Consumer's Willingness to Pay for the Safe Pork

Variables	Model 1		Model 2			
			Probit function		Marginal effect	
	Coef.	S.E.	Coef.	S.E.	DY/dx	S. E.
BID	-0.0251***	0.0028	-0.0269***	0.0029	-0.0052***	0.0005
INCOME			0.0458***	0.0137	0.0090***	0.0026
PORK VOLUME			-0.0710	0.0638	-0.0139	0.0124
DEPENDENT_RATE			0.3101*	0.1829	0.0610*	0.0356
AGE			-0.0089	0.0062	-0.0017	0.0012
HIGH EDUCATION			-0.1552	0.1626	-0.0303	0.0317
HOUSEWIFE			0.1435	0.1889	0.0280	0.0368
PRICE_CO_PORK			0.0199***	0.0074	0.0039***	0.0014
KNOWLEDGE			0.1996***	0.0594	0.0390***	0.0113
FAMILY NUMBERS			-0.1540***	0.0413	-0.0301***	0.0078
Constant	4.4250***	0.4356	3.1523***	0.7794		
Log likelihood value	-529.3551		-507.4911			
Pseudo R-squared	0.0796		0.1176			
Correct prediction (%)	67.99		70.81			
Mean/Median WTP (VND/kg)	176,620 (170,040-185,170)		176,180 (169,810-184,180)			

Notes: Values in parentheses are standard deviations 95% CI: 95% confident interval is estimated by Krinsky and Robb method (1986) ***, ** and * significant at 1%, 5% and 10%.
Source: Surveyed data, 2016

The results show the values of Pseudo R-squared and log-likelihood in Model 2 higher than those in Model 1, revealing the parametric fit level of Model 2 higher than that of Model 1. The value of Swait-Louviere log-likelihood ratio[14] is LR = -2(LL_1-LL_2) = -2(-529,3551 – (-507,4911)) = 43,73 which is more than the critical value of Chi-square distribution of 21.67 at the 1% significance level on 9 degrees of freedom[15] (Khai, 2015), showing that the data estimation in Model 2 is better fit than Model 2. Thus, the results of Model 2 will be used as final interpretations. Consistently with the results of previous studies (e.g. Khai, 2015; Khai & Yabe, 2014; 2015; Yin et al., 2010; Tsakiridou et al, 2008; Loureiro & Hine, 2002;), the sign of INCOME parameter is positive and statistically significant at 1% level, suggesting the respondents who have higher household income are more likely to purchase the proposed safe pork. Similar to other studies (Khai & Yabe, 2015; Dan & Duyen, 2010), the study reveals that respondents who have more knowledge score on the safe pork prefer the proposed safe pork and who consume higher price of traditional pork are more likely to buy the safe pork. The respondents who have more number of family members are less likely to pay for the safe pork at the significant level of 1%. The possible explanations could be that families with more members spend more on

[14] Calculated by the formula $LR = -2(LL_1 - LL_2)$, where LL_x is the log-likelihood statistics for the different models.
[15] The degrees of freedom are given by the difference in the numbers of parameters estimated in the two models.

food and foodstuffs, so their expenditures could increase significantly if they agree to pay more for the safe pork. The study also shows the respondents with a larger proportion of elderly and children are more likely to accept to buy the safe pork at the significant level of 10%.

4. Conclusion

This study used the CVM to estimate urban consumer's demand for the proposed safe pork in the Vietnamese Mekong Delta. The results showed that most of the respondents were knowledgeable about pork safety, which is reflected in their understanding of the problem of food safety in the process of pork production and consumption. In general, over 70% of respondents had knowledge about the situation. In addition, the study also found that 64% of respondents agreed to pay for the safe pork and they were willing to pay 176,000 VND per kg, which was nearly double compared to the average price of conventional pork in the current market. Regression results showed the acceptability of willingness to pay for the proposed pork was positively influenced by total household income, the price of conventional pork, knowledge of pork safety and the proportion of dependents in the family. In order to develop or promote safe pork in the Vietnamese Mekong Delta, we suggest some following recommendations.

First, the authorities should raise consumer's awareness of the important role of safe food for their health via mass media channels or conferences. Second, to protect the health of consumers, it is necessary to encourage the development of reputable companies specializing in safe pork production with closed feeding and slaughtering chain. This chain meets the requirements such as clear origin, clean label; the processes of slaughter, transportation and sale ensure food safety standard of the Ministry of Agriculture and Veterinary Department. The proposed safe pork could be sale at a price up to double compared with the price of conventional pork. Moreover, food companies should focus on the target group of families with children and the elderly as they are very concerned about health issues. Finally, the authorities should enhance to inspect or check the quality and origin of food to protect the rights of consumers and strengthen their confidence.

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Access to Communication Channels and Use of Family Planning among Women in Tanzania: Spatial and Socio-demographic Analysis

Zuena Kilugwe[16], Sosthenes Ruheza[17]
[1]Mzumbe University, School of Public Administration and Management, Tanzania
[2]University of Iringa, Department of Community Development, Tanzania
*zkkilugwe@mzumbe.zc.tz, ruhezah@yahoo.com

Abstract: This study examined the relations and access to communication channels on the use of Family Planning (FP). Relationships between independent variables including access to communication channels and the use of FP services, and demographic characteristics were examined. This study used cross-sectional data from the Tanzania Demographic Health Survey and Malaria Indicator Survey (TDHS-MIS) of 2015-2016 from 11,127 women aged between 15-49 years. The sample was weighted to ensure representativeness. Univariate, bivariate and binary logistic regression analyses were used. Results in this study revealed a statically significant correlation between access to FP messages and use of family planning services ($p<.001$). Access to radio, television, printed media, and mobile phones was observed more among women who were never in a union, those with tertiary education, women in urban areas and among those within a high wealth index. Use of FP services increased with the fluency of access to FP messages. Printed media predicted more likelihood in the use of FP at $\beta=0.460$, $p<0.001$; radio at $\beta = 0.368$, $p<0.001$; health facilities at $\beta=0.284$, $p<0.001$ and education level at $\beta=0.276$, $p<0.001$. The study concludes that despite the fact that there was a correlation between access to FP messages and the use of FP, the use or not use of the same is also influenced by factors.

Keywords: *Communication channels, family planning, maternal mortality, infant mortality, Tanzania.*

1. Background

Fertility and projected population growth rates are significantly high in sub-Saharan Africa (World Health Organization, 2011 cited by Oseko, 2013). High population growth rate is a major international concern because it has the potential to hinder attainment of health and other development goals in the region (Cleland et al., 2006 cited by Nettey et al., 2015). In spite of the high fertility levels in most countries in sub-Saharan Africa, the potential economic benefits of Family Planning (FP) have not been fully realised in the sub-region (Nettey et al., 2015). FP has been promoted as a strategy to curb the problem of rapid population growth and its associated reproductive health problems (Ajaero, Odimegwu, & Ajaero, 2016). FP reduces both maternal and infant mortality rates and it decreases abortions of undesired pregnancies, thus, increasing gender equality by enabling more girls to attain tertiary education, employment and increased income (Miller, 2011). A United Nations Population Fund, (2006) report indicates that, access to FP reduces global infant mortality at a rate of 2.7 million every year. In Kenya alone, it is estimated that FP is responsible for prevention of about 14,040 maternal deaths and 434,306 child deaths (Government of Kenya, 2007 cited by Oseko, 2013).

It has also been established that FP allows the spacing between births, hence, improving the health and well-being of a family; and of the population at large (Longwe, Huisman & Smits, 2012; Westoff, 2012). Oseko (2013) observes that, when mediated by Interpersonal Communication (IPC) discussions of obtained messages prior to the decision to use FP, mass media may effectively motivate people to adopt FP. For example, various studies indicate that women, who were exposed to mass media messages and had discussed them with other people, were more likely to adopt FP compared to those who did not discuss the messages (Syed, Abdul & Jan, 2008 cited by Oseko, 2013). Word-of-mouth was seen to be among the most effective communication channels for acquiring knowledge and promoting desired changes in behaviour (Ajaero et al., 2016).

[16] : Mzumbe University, School of Public Administration and Management – (zkkilugwe@mzumbe.ac.tz - +255764751122)
[17] : University of Iringa, Department of Community Development (ruhezah@yahoo.com - +255768751100)

Different communication channels such as television, radios and mobile phones, printed media, health facilities and, health field workers have been globally used to communicate FP messages. Mass communication encouraged and motivated people to FP use. The common mass media that are used in disseminating FP messages are radio, television, cinema, printed media and traditional folk events (Kabir & Islam, 2000 cited by Islam & Hasan, 2016). The effectiveness of communication channels on influencing the use of FP varies considerably. For example, while mass media are very effective in the creation of awareness on FP, IPC moves an individual from being knowledgeable about FP to the uptake of the method and thereby acquiring new behaviour (International Planned Parenthood Federation, 2013). Both IPC and mass media messages avail women with awareness on FP use and the methods available. Contrary to the significance of the communication channels on influencing the use of FP, several authors such Apanga & Adam (2015) and Hamid & Stephenson (2006) observed that despite high awareness of FP services in the most communities, very few people were using the services. Socio-economic and demographic characteristics of the population potentially are responsible for this.

These include: level of education, place of residence, age, number of living children, and access to FP services. These form important determinants to use or not use of FP in sub-Saharan Africa (Kyalo, 1996 and Tuonane, 1999 cited by Oseko, 2013). A similar view was also reported by Davidson & Jaccard (1979) cited by Islam & Hasan (2016) factors such as age, son preferences, a number of sons and daughters also influenced the couple's use of FP. In Bangladesh, factors such as administrative areas, educational level, health workers visit, religion, region, current children, age, and occupation were found to influence married women's uptake of FP services (Rahman et al., 2011 cited by Islam & Hasan, 2016). It is against this background that this study, using the Tanzania Demographic Health Survey and Malaria Indicator Survey (TDHS-MIS) data of 2015-16, examined the significance of access to different communication channels on FP messages on the use of the service among women in Tanzania. It is envisaged that the findings will be useful in determining the most effective communication channels for conveying FP messages. This may contribute to the reduction of maternal and infant mortality rates, reduce socio-economic problems associated with rapid population growth, reduce abortions of unwanted pregnancies and increase gender equality.

2. Literature Review

Socio-Demographic Characteristics, Access to Communication Channels and FP Use: Family Planning refers to the control of a number of children a woman can give birth to (Oseko, 2013). It is a process of avoiding too early, too close, too many and too late childbearing. FP methods the use of condoms, oral contraceptives, implants, injections, Intrauterine Contraceptive Devices IUCD) and female sterilization (hysterectomy), cervical cap, coitus interrupt Lactation Amenorrhea Method (LAM) among others (Oseko, 2013). FP involves behaviour change and this can be achieved through Information, Education and Communication (IEC) advocacy campaigns in the society, especially among women. Access to appropriate knowledge and information about the new behaviour and its relevance, people are able to make informed choices about their reproductive health (Oseko, 2013). Communication is an essential element in reproductive health, as it motivates women to change from unhealthy behaviour and practice healthy behaviour all through. In FP, Behaviours Change Communication (BCC) help people practice healthy behaviour by increasing awareness of reproductive health, improve women's health status and related long-term outcomes. It also motivates individuals to seek services and help them to successfully use their FP method of choice (Oseko, 2013). Results indicated that exposure to BCC messages was associated with higher FP intentions and use (Gupta, Katende & Bessinger, 2003). There is evidence from a number of studies that individuals' exposure to mass media messages promoting FP influences contraceptive behaviour (Piotrow et al., 1990, Bankole; Rodriquez & Westoff, 1996, Westoff & Bankole, 1997 and Kincaid, 2000 cited by Gupta et al., 2003). For example, in Nigeria, the use of modern FP, intent to use, and desire for fewer children were found to be associated with exposure to media messages on FP (Bankole et al., 1996 cited by Gupta et al., 2003). A similar study in Tanzania found that women exposed to a mix of media promoting FP services were more likely to use FP than those who did not have access to messages on FP (Jato et al., 1999 cited by Gupta et al., 2003).

This suggests that different messages and approaches in BCC are required to reach people at different stages in the communication process (Gupta et al., 2003). Communication through mass media has been popular due

to the opportunity it affords to reach a large audience and address issues that are sensitive or culturally taboo in an entertaining and informative manner and, are most effective when combined with other intervention components such as social marketing or IPC interventions (Mwaikambo et al., 2011 cited by Grant & Bhardwaj, 2016). For example, a study in Nepal, revealed that exposure to mass media had an indirect effect on FP use through an increase in IPC, as well as positive changes in attitudes and perceived social norms regarding FP (Storey et al., 1999 cited by Gupta et al., 2003). Similarly, women exposed to a mass media campaign in Tanzania were found to have more positive attitudes towards FP and facilitates discussion on FP issues with their spouses (Jato et al., 1999 cited by Gupta, 2003). Furthermore, a study in Tanzania by Jato et al. (1999) and in Mali by Kane et al. (1998) cited by Gupta et al. (2003) found that the more types of media sources of FP messages, the greater the likelihood of FP use. IPC is a very effective and efficient in health communication as it helps to influence, discover and share information among individuals involved as it permits dialogue and immediate response to the individual (Oseko, 2013).

IPC approaches can include one-on-one discussions, small-group sessions, and facilitator-led curriculum-based programmes (Gupta et al., 2003). IPC helps in the effective delivery of information to community members and move individuals from being knowledgeable about FP to uptake methods and continued practices of new behaviour (International Planned Parenthood Federation, 2013). IPC supported by mass media could play a key role in increasing correct knowledge on FP, addressing misconceptions and triggering spousal communication (Khan et al., 2013 cited by Grant & Bhardwaj, 2016). Apart from access to FP messages, studies show that several socio-demographic factors are associated with not only to the access to FP messages but also to the change in attitude and practices about the use of FP. Several studies such as that in Senegal and Burkina Faso by Jacobs (2016), observe that FP messages via mass media were not reaching the poor, less-educated, and rural women; access to printed media increased with women's levels of education (Amin, 2014; Jacobs, 2016). Moreover, the study by Jacobs (2016) revealed lower levels of exposure among adolescent women across all forms of media.

Socio-demographic factors often cited in the literature as important determinants of changing FP attitudes and practices include age, parity, the number of children ever born and, place of residence have repeatedly been found to influence reproductive behaviours (Gupta et al., 2003). For example, a study in Uganda on FP prevalence among women ranged from 6% for those with no formal education to 36% for those with at least some secondary schooling, with only 35% of women with no education reported intent to use FP in the near future, compared with those in the highest educational category 47% (Gupta et al., 2003). Women's exposure to BCC messages was found to be significantly associated with increased FP use, all else being equal. Not only were women with no exposure less likely to be using FP compared to their counterparts who were exposed to anyone message type, but also greater likelihood of FP use with exposure through multiple media channels showed evidence of a dose-response effect. At the same time, FP prevalence was found to have increased significantly over time (Gupta et al., 2003).

3. Methods

Setting: The United Republic of Tanzania is a multicultural and multi-religion country in East Africa. The country has a mixed economy. In 2016, the population of Tanzania mainland was projected at 50.1 million (National Bureau of Statistics, 2015); with a total fertility rate of 5.2 (Tanzania Demographic Health Survey and Malaria Indicator Survey, 2015-2016). The high population growth rate in Tanzania has been brought about by high fertility and declining mortality levels. The population of Tanzania has continued to be predominantly rural despite the increase in the proportion of urban residents over time, from 6% in 1967 to 30% in 2012 (National Bureau of Statistics, 2015).

Source of Data: This research used cross-sectional data from the Tanzania Demographic Health Survey and Malaria Indicator Survey (TDHS-MIS) of 2015-2016 from 11,127 women aged between 15-49 years. The survey collected information on fertility levels, marriage, sexual activity, fertility preferences, awareness and use of FP methods, breastfeeding practices, nutrition, childhood and maternal mortality, maternal and child health, malaria, and other health-related issues. In addition, the Tanzania Demographic Health Survey and Malaria Indicator Survey 2015-16 provided estimates of anaemia prevalence among children age 6-59 months and women age 15-49 years, estimates of malaria prevalence among children age 6-59 months, and

estimates of iodine concentration in household salt and women's urine. The sample for the survey was derived from the use of a two-stage cluster sampling design. In stage one, 608 Enumeration Areas (EAs) were selected as clusters from a sampling frame developed for the 2012 Tanzania Population and Housing Survey. From the selected EAs, 22 households were systematically selected in stage two and all women aged 15-49 years who were present in the households, including visitors who spent the preceding night in the household, were included in the analysis.

Variables Used for the Study: The study used two major variables for analysis: using or intend to use FP (both modern and traditional methods) (dependent variable) and access to FP messages (independent dummy variable) and spatial and socio-demographic characteristics of the population. Dependent variables included women aged 15-49 years who were using or intended to use both modern and traditional FP. This variable was measured as a dichotomous variable coded as the use of FP or no use or no intention to use FP. The independent variable was access to FP messages via radio, television, printed media, mobile phones, health facilities and field health workers. The variable was also measured dichotomously, and was coded as having or not having access to FP messages via different communication channels.

Data Analysis: The Statistical Package for Social Sciences (SPSS) version 16 was used for data analysis. Descriptive and inferential data analyses were done. The descriptive analysis involved univariate analysis of the socio-economic and demographic characteristics of the population, while bivariate analysis between the use of FP and each of the methods of conveying FP messages (radio, television, mobile phone, printed media, and health facility and health field worker). Finally, logistic regression was used to estimate the effectiveness of each of the communication channels and socio-economic and demographic characteristics of the population on the use of FP among women in Tanzania.

4. Results and Discussion

Frequency of Access to FP Messages and the Use of FP: Results in Table 1 show that there was a statistically significant relationship (p<0.001) between the frequency of exposure to FP messages and the use of FP. The percentage of the women who used FP increased with the fluency of exposure to FP messages from 64.5% (1318) for those who had never received FP messages to 73.1% (3101) among those who occasionally received the messages and, almost 80% (1330) of the women who received FP messages regularly.

Table 1: Cross-tabulation between Frequency of Access to FP Message and the use of FP (P <.000)

	Frequency of access to FP message		
use/or not use of FP	**Not at all**	**Occasionally**	**Daily**
Not using/not intend to use	35.8% (735)	26.9% (1140)	20.1% (335)
Use FP	64.5% (1318)	73.1 (3101)	79.9% (1330)
Total	100% (2053)	100% (4241)	100% (1665)

Personal Characteristics of the Respondents and Access to FP Messages: Results in Table 2 indicate that there is a significant correlation between independent variables and access to FP messages via radios (p<0.001). Almost three-fifths (60.0%) of the women in the age groups 20-24,25-29 and 30-34 had the highest access to FP messages via radio, while those in the age group 45-49 had 50% of accessing FP messages via radio. Women who were not in the union had the highest access to FP messages via radio 67% (334), followed by divorced almost 63% (603), the married 58% c (4986) and the widowed 58% (95). Results further revealed that access to FP messages via radio increased with women's education level. The findings indicated that only 42% (918) of the women with no formal education had access to FP messages.
Whereas 63% (3866) were those with primary education, almost 66% (1166) and, 76.4% (68) of women were those with higher levels of education. Results further indicated that 54.5% (4270) of the rural residents had access to FP message via radio, whereas, 73.1% (1748) included those among the urban dwellers. Access to FP messages via radio increased with the increased wealth status, as only 50.1 % (2220) of the women with a low wealth index had access to FP messages via radio compared to 67.1% (2577) of the women within a high wealth index. Results (Table 2) indicate that there was a statistically significant correlation between independent variables and access to FP messages via television (p<0.001). Nearly 25%) of women within the age groups 20-24, 25-29 and 30-34 accessed FP messages via television, while, 18% (348) accounted for

those in the age group 15-19 and 13% (465) in the age group 40-44. Women who were not in the union had the highest access to FP messages via television. These accounted to41.4% (206) compared to 26.1% (43) of the widowed, 25.5% (245) of the divorced and almost 21 % (1791) of the married women. Results further revealed that access to FP messages via television increased with the education level of the women. The findings indicate that only 6% (129) of the women with no formal education had access to FP message via television compared to 72% (64) of the respondent with a higher education level. Place of residence was another important factor that determines women's access to FP messages. While 14.1% (1103) of the women residing in rural areas had access to FP messages via television, urban dwellers accounted for 49.4% (1182). Similarly, only 8.3% (369) of the women in the low wealth index had access to FP messages via television compared to 43.2% (1647) of those in the high wealth index.

Results further show that there was a statistically significant association ($p<0.001$) between access to FP messages via printed media and independent variables. For instance, women within an age group 20-24 had 23.1% (563) of access, whereas, those in age groups 30-34 and 25-29 had 21.4% (420) and 20.1% (510) of access, respectively. Those in age group 45-49 had 7.4% (40) access. Results also revealed that women who were not in the union had 37% (185) access to FP messages via printed media, the widowed had 24.2% (40), the divorced 22.1% (213), whereas, married women had 18%(1526) access through the media. As regards education, results revealed that 1.6% (35) of those with no formal education, 22% (1338) with primary education, 30.4% (539) with secondary education, and 58.4% (52) with tertiary education had access to FP messages via print media. Women in urban areas had 32.4% (775) access to PF messages via print media compared to 15.2% (544) of their rural counterparts. The effects of wealth were also analysed in terms of women's access to FP messages through print media. Results indicated that women within the low wealth index had 12.3% (544) access, whereas, those within the middle and high wealth indices had 16.7% (333) and 28.5 % (1087) of access, respectively. Results also indicated that there was a statistically significant correlation between independent variables and access to FP messages via mobile phones ($p<0.001$). For instance, access to FP messages via mobile phones decreased with increased age. For instance, women in the age group 25-29 had almost 5 % (119) access to FP messages, those in the age group 20-24 and 30-34 had 4.1% (99), whereas, the lowest percent was 0.8% (2) among those in the age group 45-49.

Findings also indicated that access to FP messages via mobile phones increased with women's education level. Almost 35% (31) of women with the highest level of education had access to FP messages via mobile phones compared to only 0.5 % (11) of the women with no formal education. Results further showed that, while 9% (216) in urban residences had access to FP messages via mobile phones, only 2% (154) of rural residents had access to FP messages via this medium. Similarly, the difference was observed based on the wealth index. About 8% (301) of the women in the high and 1% (39) in the low wealth index had access to FP messages via mobile phones. Marital status had a significant correlation with access to FP messages via health facilities ($p<0.001$). Access to FP messages via health facilities was reported in 46% (3032) of married women, 42.3% (159) among those who were never in a union, 39% (284) among the divorced, whereas, the percentage of the widowed was only 29.4% (32). Findings also indicated that education was an important factor that influenced access to FP messages. Findings showed that 46.2% (2207) of the women with primary education, 42.1% (587) with secondary, 46% (33) with tertiary education and 43.1% (680) of those with no formal education had access to FP messages via health facilities. Similarly, about 45.6% (2700) of women in the rural areas accessed FP messages via health facilities compared to 43% (807) of the urban residents. Access to FP messages decreased with increased wealth index among women; almost 47% (1570) included women in the low wealth index while 42% (1245) included those in the high wealth index.

Furthermore, results (Table 2) show that there was no significant correlation between independent variables and access to FP messages via field workers. Results show that women in age group 15-19 had 34.6% (8), 20-24 had almost 48% (43), 25-29 had 57% (65), and 30-34 had 36.4% (24) access to FP messages via field workers. Those in the age groups 40-44 and 45-49 had 50% (16) and 80% (8) respectively. Results also revealed that access to FP messages via field workers varied with marital status. Access via field workers was reported among 46% (11) of the women who were never in a union, 47.5% (171) of the married, 44.4% (4) of the widowed and 51.5% (17) of the divorced women. Similarly, it was also found that 50.6% (39) of the women who had no formal education, 45.2% (113) with primary, with secondary education with tertiary education had access to FP messages via field workers. The difference, however, was not significant

(p=0.681). Furthermore, results indicated that 48% (145) of women who resided in rural areas accessed FP messages via field workers. Those in the urban included 47.5% (53) of women. The difference, however, was not statically significant (p=0.977). Likewise, access to FP messages via field workers varied considerably with the women's wealth index. This study showed that50.3% (76) of the women in the low wealth index accessed FP messages via field workers, whereas, 49.4% (40) and 45 % (87) included those within the middle and high wealth indices, respectively. The difference was not statistically significant (p<0.564).

Binary Logistic Regression between the Dependent and Independent Variables: Logistic regression was run on the study findings. Results from the regression model (Table 4) indicated that the model's was significant (p<0.001), with Wald value = 410.726and 10 degree of freedom. We, hence, concluded that the model is statistically significant to predict how independent variables affect the dependent variable in this study. Furthermore, the model, as reflected, indicates that of all the independent variables: television and health facilities, age groups, and education level were statistically significant at p<0.001, while printed media were statistically significant at p<0.001. Mobile phones, radios, marital status and wealth index were not statistically significant.

Access to Different Sources of FP Messages and the Use of FP: Results (Table 3) indicated that 80.5% (2840) of the women who were using FP accessed FP message via radio (p<0.001), 84.8% (1937) via television (p<0.001), 87.5% (1718) via printed media(p<0.001), 89.2% (7354) via mobile phones(p<0.001), 85.2% (173) via field workers (p<0.163) and 80.2% (2814) via health facilities (p<0.001). Results also revealed that radio, television, printed media, and mobile phones were most accessed by women who were never in a union, those with tertiary education, women in urban areas and by those within the high wealth index. Health facilities were mostly accessed by married women; those with primary and tertiary education; those in rural areas and those within the low wealth index. Field workers were mostly accessed by married women, women in the old age, those with tertiary education, women in rural areas and those within the low wealth index. Results further indicate that women in the reproductive age have the highest access to the sources of FP messages, except via field workers that were most accessed mostly by women aged between 45-49. Consistent with these study findings, the study in Senegal and Burkina Faso by Jacobs (2016) observes that FP messages via mass media are not reaching the poor, less-educated, and rural women; access to printed media increased with women's levels of education (Amin, 2014; Jacobs, 2016).

The contrasting finding is that by Jacobs (2016) who observed lower levels of exposure among adolescent women across all forms of media. Arguably, effectiveness and efficiency of communication channels on FP messages significantly differ within and between countries; women's exposure to FP messages via multiple forms of media as compared to one was more likely to influence their intention to use FP (Oseko, 2013). Contrary to the study finding, the study in Pakistan observed that despite the high awareness of FP services in the community, very few people use the service (Hamid & Stephenson, 2006; Apanga & Adam, 2015; Ochako, et al., 2015). It is worth noting that women's decisions to use FP also depended on other factors such as age, son preferences and a number of sons and daughter (Davidson & Jaccard, 1979 cited by Islam & Hasan, 2016). For example, according to Ajaero et al. (2016), in most cases, people in rural areas do not adopt modern FP as they prefer large family size to meet man labour required for production. Moreover, the study findings indicate women who use FP haven ever accessed FP messages from formal communication media. This may suggest existence of informal messages on FP that might have influenced them.

Table 2: Cross-Tabulation between Personal Characteristics and Access to FP Messages

Population characteristics	Radio			Television			NP/MZ			Mobile Phone			Health Facilities			Field Workers		
	Yes	%	Sig	Yes	%	Sig	Yes	%	Sig	Yes	%	Sig	Yes	%	Sig	Yes	%	Sig.
Age group																		
15 – 19	348	54.7		115	18.1		106	16.7		11	1.7		208	42		8	34.6	
20 – 24	1463	60.2		609	25		563	13.1		99	4.1		852	45.7		43	47.8	
25 – 29	1548	60.9		633	24.9		510	20.1		119	4.7		923	46.8		65	57	
30 – 34	1184	60.2		472	24		420	21.4		81	4.1		638	42.3		39	42.4	
35 – 39	88.1	57.1		306	19.8		248	16.1		43	2.8		557	46.5		24	36.4	
40 – 44	465	54.5		114	13.4		98	11.5		15	1.8		259	42.2		16	50	
45 – 49	129	50	0.000	36	14	0.000	19	7.4	0.000	2	2.8	0.000	70	42.4	0.433	8	80	0.082
Marital status																		
Never in union	334	67.1		206	41.4		185	37.1		28	5.6		159	42.3		11	45.8	
Married	4986	57.9		1791	20.8		1526	17.7		297	3.5		3032	45.9		171	47.5	
Widowed	95	57.6		43	26.1		40	24.2		10	6.1		32	29.4		4	44.4	
Divorced	603	62.7	0.000	245	25.5	0.000	213	22.1	0.000	35	3.6	0.026	284	39	0.000	17	51.5	0.966
Education level																		
No formal	918	41.7		129	5.9		35	1.6		11	0.5		680	43.1		39	5.6	
Primary	3866	62.7		1309	21.2		1338	21.7		162	2.6		2207	46.2		113	45.2	
Secondary	1166	65.7		783	44.1		539	30.4		166	9.4		587	43.1		44	51.2	
Higher	68	76.4	0.000	64	71.9	0.000	52	58.4	0.000	31	34.8	0.000	33	45.8	0.021	7	53.8	0.681
Place of residence																		
Rural	4270	54.5		1103	14.1		1189	15.2		154	2		2700	45.6		145	47.7	
Urban	1748	73.1	0.000	1182	49.4	0.000	775	32.4	0.000	216	9	0.000	807	42.6	0.021	53	4.5	0.977
Wealth index																		
Poor	2220	50.1		369	8.3		544	12.3		39	0.9		1570	46.9		76	50.3	
Middle	1221	61.4		269	13.5		333	16.7		30	1.5		692	46.5		40	49.4	
Rich	2577	67.5	0.000	1647	43.2	0.000	1087	28.5	0.000	301	7.9	0.000	1245	41.7	0.000	87	44.8	0.564

Table 3: Bivariate and Chi-Square Analysis of Access to Different Sources of FP Messages nd Use of FP/Not Using FP

Source of FP Messages	Status	Yes	No	p-value
	NUFP	19.50% (1174)	32.60% (1375)	
	UFP	80.50% (4844)	67.40% (2840)	
Radio message	Total	100% (6018)	100% (4215)	0.000
	NUFP	15.2% (343)	27.70% (2201)	
	UFP	84.8% (1937)	72.30% (5747)	
Television message	Total	100% (2285)	100% (7948)	0.000
	NUFP	12.50% (246)	27.90% (2303)	
	UFP	87.50% (1718)	72.10% (5966)	
Newspaper/magazine	Total	100% (1964)	100% (8269)	0.000
	NUFP	10.80% (40)	25.40% (2509)	
	UFP	89.20% (7354)	74.60% (7354)	
Mobile phone message	Total	100% (7394)	100% (9863)	0.000
	NUFP	14.80% (30)	10.30% (23)	
	UFP	85.20% (173)	89.70% (200)	
Field workers'	Total	100% (203)	100% (223)	0.0163
	NUFP	19.80% (693)	25.70% (1107)	
	UFP	80.20% (2814)	74.30% (3205)	
Health Facilities	Total	100% (3507)	100% (4312)	0.000

NUFP= not use Family Planning; UFP= use Family Planning, FP= Family Planning

Table 4: Binary Logistic Regression Results of the Predictors of the Current Use of FP and Access to FP Messages

Independent Variables	β	SE	Wald χ^2	DF	p-value
Constant	1.537	0.219	49. 64		0.000
Radio	0.368	0.059	37.233	1	0.050
Television	0.168	0.086	3.843	1	0.000
Newspaper/magazine	0.460	0.0 0	26.295	1	0.010
Mobile phone	0.392	0.205	3.656	1	0.056
Health facilities	0.284	0.057	25.128	1	0.000
Age	- 0 035	0.004	82.994	1	0.000
Residence	- 0.065	0.08	0.654	1	0.419
Education level	0.276	0.049	32.44	1	0.000

Wealth index	0.036	0.025	2.112	1	0.146
Marital status	0.016	0.03	49.064	1	0.609

DF: 10 P. <.05; R^2 = 0.078

The Model Was: UFP = 0.490+0.448X1 – 0.253X2+0.200X3+0.124X4+ε; where UFP = Use of FP, X1= television, X2 = printed media, X3 = mobile phones, X4 = health facilities, X5= radios, X6= age group of the women, X7= place of residence of the women, X8=education level of the women, X9= wealth index of the women, and X10= marital status of the women; ε = error term which means all variables (factors) which affected use of FP but are not considered in this study. Results (Table 4) also show that printed media predicted more on the likelihood on the use of FP at β = 0.460 and p<0.001; followed by mobile phone with β = 0.392 and p<0.056; radio at β = 0.368 and p<0.001; health facilities β=0.284 and p<0.001; education level with β=0.276 and p<0.001, television with β = 0.168 and p<0.050 and, age group of the women with β=-0.035 and p<0.001. Area of residence, wealth index and marital status were not statistically significant at p<0.419, p<0.146, p<0.609 respectively. Along with this view, Nettey et al. (2016) point that market interaction among women, water fetching interaction, games and hairdressing salon are growing sources of FP messages dissemination.

Discussion

Frequency of Access to FP Messages and the Use of FP: Results in this study indicate that the percentage of the women who used FP services increased with the increased fluency of access to FP messages. Variation in use of FP among women who have occasionally received FP messages and who frequently received FP messages was observed. These findings are in line with those by Tisha et al. (2015) study in Pakistan that revealed that media exposure influenced FP use. The study also indicated that women who used FP are those who were exposed to any sort of media. Various studies in several countries, including, but not limited to, Bangladesh, Nigeria, Nepal, and Tanzania, have demonstrated similar results which support the positive association between exposure to FP mass media campaigns and FP use, intention, and/or knowledge (Hutchinson & Wheeler, 2006 and Guilkey & Hutchinson, 2011 in Jacobs, 2016). Although the authors considered them as relevant sources for FP message arguably, they are most likely associated with negative impacts on the use of FP as messages are not provided by health professionals.

Spatial, Socio-Demographic Characteristics of the Women' and Access to Sources of FP Messages: The study findings show that there is a statically significant correlation between all of the independent variables and access to FP messages via radios, television, printed media and mobile phones. The study findings further revealed that access to FP messages via health facilities had a statically significant correlation with marital status, education, place of residence and wealth index of the women, while access to FP messages via field workers was not. Of the communication media, radio, health facilities, television, printed media, field workers and mobile phone were the most used sources of FP messages.

Access to FP Sources and Spatial and Socio-Demographic and the Use of FP: The study found that the use of printed media was more likely to predict women's likelihood on the use of FP than mobile phones. The study also found that access to FP messages via health facilities predict women likelihood to use of FP. These findings are similar to a study by (Ajala, 2015) in Nigeria which revealed that women who are exposed to print media report intent to use any form of FP. The study in Kenya on the effectiveness of FP messages via mobile phone also revealed that most FP users who self-report behaviour changes, including contraceptive use are of the young age (Apanga & Adam, 2015). The study by Basten (2010) has also found that FP messages via radio significantly influence listeners' awareness of FP, as they help to improve their attitude towards fidelity and family relations, as well as to adopt FP techniques. Similarly, in Tanzania, a radio soap opera entitled Tendon Waikato was deemed to have had 'strong behavioural effects on FP adoption; it increased listeners' self-efficacy regarding FP adoption and influenced listeners to talk to their spouses and peers about contraception' (Vaughan & Rogers, 2000 cited by Basten, 2010). The findings on the access to FP messages via health facilities and their influence on women's likelihood to use FP coincide with the findings by Odewale (2016) which revealed that married women who heard FP information at health facilities were

1.5 times as likely to report the use of contraception as those who did not. The result has shown that women's level of education was associated with their likelihood to use FP.

These findings are consistent with the findings by Gaetano et al. (2014) and Apanga & Adam (2015) which found that educated women are more likely to use FP services as compared to their peers who do not receive a formal education. Women's education significantly influences their approval of FP and increased their positive attitudes towards modern FP (Oye-Adeniran et al., 2006 cited by Ejembi et al., 2015; Islam & Hasan, 2016). Women who have access to television are about ten times more likely to use FP compared to those who did not (Anguko, 2014). Similar findings are reported in Pakistan, India and Bangladesh (Apanga & Adam, 2015).

5. Conclusion and Recommendations

The paper set to examine the relationship between accesses to communication channels on the use of FP among women aged 14-49 years; how the exposure to FP messages and women's demographic characteristics affect the use of FP. The findings have revealed that there is a statistical significant correlation between access to FP messages and the use of FP. Access to FP messages via radio, television, printed media, and mobile phones is observed more among women who are not in a union, those with a tertiary level of education, those in urban areas, and those within the highest wealth index. Printed media has a higher prediction on the women likelihood on the use of FP, followed by mobile phone, radio, health facilities, and level of education level. We propose that the Tanzanian government and development partners need to promote an intensified program for dissemination of FP messages, and more preferably through a combination of different channels. Education to girls cannot be overstated as it will not only help them to increase their economic status, but also it will enhance their decision relating to FP. Finally, there is a need for further research on the determinants of the selection of FP methods among women in the country.

Policy Implications: As access to FP messages, women's level of education and wealth status are positively associated with FP use, it is evident that investment on the use of integrated FP communications channels: radio, television, mobile phone and health facilities, as well as women's economic empowerment, should command the attention of the government, development partners and development policy-makers in Tanzania. To this end, greater investment on the education of girls should be pursued, as it has multiplier effects in increasing uptake of FP methods.

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The Role of Fintech Encourages the Export of Small Medium Enterprises in Indonesia

Ragimun[18], Sri Yanthy Yosepha[19]
[1]Researcher at Fiscal Policy Agency, Ministry of Finance, Republic of Indonesia
[2]Lecturer at Economics Faculty of Dirgantara Suryadarma University in Jakarta, Indonesia
ragimun@gmail.com, yosepha@universitassuryadarma.ac.id

Abstract: At present the development of financial technology (fintech) in Indonesia is very fast, many non-bank companies practice as fintech executors who channel loans to the public or Small Medium Enterprise (SMEs), this has the potential to lead to illegal banking practices (shadow banking). The next problem is how the government makes rules that can synergize fintech with the business world, banking, SMEs and others. In the future, it is expected that Fintech will play an active role in encouraging the export of the SME sector which is Indonesia's flagship sector. In this study a qualitative descriptive approach was used, which emphasized the discussion by examining the role of fintech to encourage the export of small and medium industries in Indonesia. Data sources that can be used are data from the Central Statistics Agency (BPS), the Financial Services Authority (OJK), Bank Indonesia and various relevant data sources. Fintech is currently very helpful in helping the financial literacy of the Indonesian people including SMEs as a mainstay of increasing exports in Indonesia. Several obstacles to the spread of the role of fintech continue to be overcome through various means including infrastructure improvements, socialization and financial literacy to the public and SMEs and fintech regulatory policies. The government needs to make harmonious rules to grow and to avoid risks in the financial services industry. This is crucial because the development of fintech in Indonesia is very fast. Licensing for the establishment of fintech companies from other countries must be monitored.

Keyword: *Fintech, Export Increase, SME's*

1. Introduction

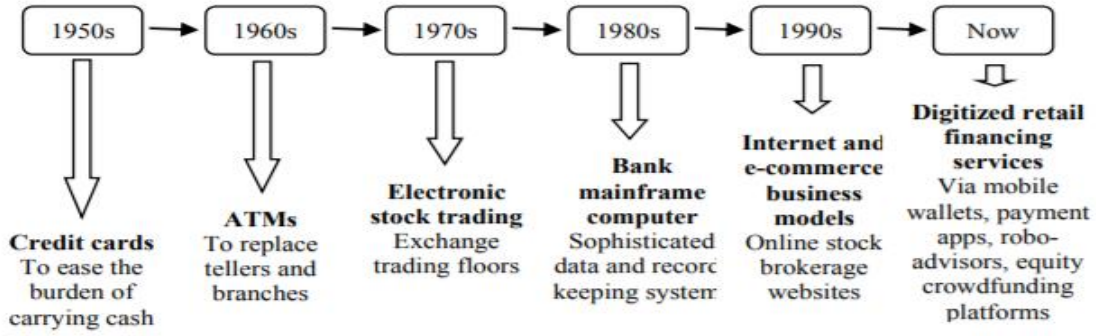
The development of fintech in Indonesia is currently very fast. However, many residents and community groups and small industries have not been fully served by information technology, as in the financial and banking industries. This is because the financial industry, especially banks, in implementing the rules is still very strict. In addition, there are limitations in the banking and non-banking industries such as market access and distribution access. On the other hand, people are looking for alternatives to use the services of the traditional financial industry by using financial technology that solves problems. Basically people or small and medium industries need alternative information, services and financing that are more democratic, transparent and more efficient. Fintech players in Indonesia are still dominated by payments that amount to 43 percent, loans 17 percent, and the rest are collectors or aggregators, crowdfunding and others. Crowdfunding is the practice of raising funds from a large number of people to capitalize on a project or business that is generally done through the internet or funding techniques for projects or business units that involve the community at large (Akbar, 2016)[20]. The purpose of Fintech in the financial world includes making it easier for people to access various products in the financial sector and facilitate transactions and improve financial literacy. In addition, Fintech is also a new information technology innovation that aims to replace various traditional financial services. Likewise, it can facilitate public access to these services. The

[18] Corresponding Author: Ragimun; Fiscal Policy Agency, Republic of Indonesia, R.M. Notohamiprodjo Building 7th floor, Jl. Dr. Wahidin no. 1 Jakarta, 10710, Tel: +62-21 3451128, Fax: +62-21 3451205, E-mail: ragimun@gmail.com
[19]Sri Yanthy Yosepha; Campus B Jl. Angkasa, Angkasa Complex, Halim Perdanakusuma East Jakarta Indonesia E-mail: yosepha@universitassuryadarma.ac.id

[20] Akbar D.S. Fadillah. 2016. Crowdfunding Concept for Infrastructure Funding in Indonesia. Ministry of Finance. Downloaded on 1 February 2018 at 11.33, from https://www.kemenkeu.go.id/media/4402/konsep-crowdfunding-for-pendanaan-infrastruktur-di-indonesia.pdf

development of fintech since the 1950s since the discovery of credit cards to date by using digitized retail financing services, will be seen in the following picture Digital services like fintech not only encourage economic growth.

Figure 1: Development of Fintech (The Evolution of Financial Technology)



Source: Falguni Desai, 2015[21]

Indonesia, but also change business practices and replace traditional financing and payment methods. Research (Deloitte, 2015)[22] entitled Digital Financial Services in Indonesia states that digital financial services will make access to the financial system increase so that it benefits the national economy. Meanwhile, according to the World Bank study, an increase of 1 percent in financial system facilities could increase GDP growth per capita by 0.03 percent. This economic growth then affects the growth of new jobs. The increase in financial inclusion by 20 percent through this digital service will generate 1.7 million new jobs. Increasing banking access also makes businesses, especially small and medium enterprises (SMEs), easier. New entrepreneurs are now emerging along with the ease of selling goods through the internet. Traders do not have to have a conventional stall or shop to sell their products. They can sell through various media such as social media, websites to special applications. The development of business with internet media is also supported by Indonesia's position as the largest e-commerce country in Southeast Asia.

Fintech Constraints Increase Exports for SMEs In Indonesia

Infrastructure: At present, a good IT infrastructure is only felt by people in large urban areas such as Jakarta, Surabaya, Bandung and so on. While the internet network has not evenly spread into remote areas or SMEs in the region, this is one of the biggest obstacles to the spread of fintech in Indonesia.

Human Resources: The limited ability of rural communities and SMEs in particular in applying fintech makes its distribution stunted. This condition makes it difficult for the government to develop fintech in the region's SMEs because of the lack of capable and skilled workers who can support the increase in exports of these SME products.

Regulation or Legislation: Currently the fintech industry is based on civil law, there are no specific rules regarding fintech. This has become one of the obstacles to the spread of fintech in the community. Therefore the government needs to issue regulations related to fintech so that public interest or SMEs to be able to use fintech will increase.

[21] Desai, Falguni. (2015). The Evolution of Fintech. https://www.forbes.com/sites/falgunidesai/ 2015/12/13/theevolution-of-fintech/#286fcfcc7175 [online] 04 August 2017.

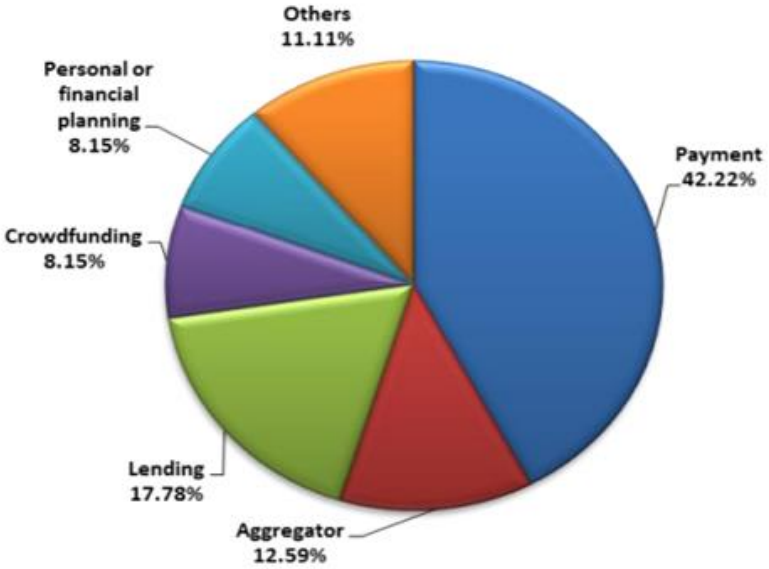
[22] Deloitte. 2015. Digital Financial Services in Indonesia. Downloaded on March 6, 2018 at 9:56 a.m., from https://www2. Deloitte .com/content /dam/ Deloitte /sg/ Documents /financial-services /sea-fsi-digital-financial-s ervices-in-Indonesia- noexp .pdf

Lack of Financial Literacy: Most of the people or SMEs in the countryside do not know fintech regarding the use, benefits, and objectives of using fintech because of the lack of government literacy about the financial system properly. Therefore, it is necessary to take steps to disseminate and discuss through various media including social media to get the public's attention and as an effort to seek input for the improvement of the existing system. As a result of the low level of knowledge of financial literacy, the people or SMEs do not have good financial management planning. Likewise, licensing for the establishment of Fintech companies from other countries can be monitored because there are some indications of an unlicensed fintech company operating in Indonesia.

2. Literature Review

In 2014, the research institute (Euromonitor) noted that online sales in Indonesia reached the US $ 1.1 billion, higher than Thailand and Singapore. However, if compared to the total retail trade, e-commerce sales in Indonesia only contributed 0.07 percent. That is, the Indonesian e-commerce market has the opportunity to grow bigger. Especially with the largest population and level of gross domestic product (GDP) in ASEAN. (DBS Research E-Commerce in Asia: Bracing for Digital Disruption, 2016)[23]. As an illustration of fintech in Indonesia based on a predominantly sector for payment transactions of more than 42 percent, both help in lending sector transactions which amount to almost 18 percent. As the following picture:

Figure 2: Profile of Fintech in Indonesia (by Sector)



Source: Association of Fintech Indonesia, 2017

Therefore, the amount of potential that is owned by fintech needs to be given space to grow. Likewise, an adequate arrangement is needed in view of the risks that may arise. (Hadad, 2017)[24]. Although apparently not all fintech applications in various countries recorded success stories. In China, not all of them are successful and need to learn also from the Australian experience. Finally, Singapore authorities show how to approach

[23] DBS Bank. 2016. Increasing Financial Inclusion through Banking Digitalization. Downloaded on January 27, 2018 at 10.21, from https://www.dbs.com /spark/index/id_id/dbs-yes- sset/files/ (Riset%203) %20Increase% 20 Financial%20InCLUSION%20 Through %20 Digitality

[24] Hadad D. Muliaman. 2017. Financial Technology (Fintech) in Indonesia. Financial Fervices Authority. Lecture About Fintech-IBS, 2 June 2017. Downloaded on 31 January 2018 at 3:06 p.m., from http://www.ibs.ac.id/img/doc/MDH%20-%20FinTech %20IBS %20June %202017. Pdf

fintech companies in the early stages of their growth (Warta Ekonomi, 2016)[25]. In Indonesia today many non-bank companies practice as fintech executors who channel loans to the public or SMEs, this will have the potential to lead to illegal banking practices (shadow banking). Therefore, the problem ahead is how the government makes rules that can synergize fintech with the business world, banking, SMEs and others. On the other hand encourage the role of fintech in order to increase the export of SMEs as Indonesia's mainstay sector. According to Constitution number 20 of 2008, the criteria for SMEs are classified based on the number of assets and turnover owned by a business. (Sudaryanto, 2014)[26].

Table 1: **Criteria for SMEs in Indonesia**

No	Business	Criteria	
		Asset (Rupiah)	Turnover (Rupiah)
1	Micro Business	Max. 50 Miliion	Max. 300 Million
2	Small Business	> 50 Million – 500 Million	> 300 Million – 2,5 Billion
3	Medium Enterprises	> 500 Million – 10 Billion	> 2,5 Billion – 50 Billion

Note: 1USD = 14.600 Rupiah
Source: Ministry of Cooperatives and Small and Medium Enterprises, 2013

The presence of a number of fintech companies contributed to SMEs development. Not only limited to helping finance business capital, but the role of Fintech has also penetrated into various aspects such as digital payment services and financial arrangements. Constraints in implementing fintech to improve inclusive finance SMEs in Indonesia include infrastructure, human resources, legislation and lack of financial literacy[27].

3. Methodology

In this study a qualitative descriptive approach was used, which emphasized the discussion by examining the role of fintech to encourage the export of small and medium industries in Indonesia and Primary data used in this research through a literature study. Data sources that can be used are data from the Financial Services Authority (OJK), Bank Indonesia and various relevant data sources. According to IOSCO (2017),[28] the term fintech is used to describe various innovative business models and emerging technologies that have the potential to change the financial services industry. Fintech maps eight categories, such as regarding payment activities, insurance, planning, borrowing and crowdfunding, the blockchain, trade and investment, data and analytics, and security.

4. Results and Discussion

One of Fintech's roles is to open up greater opportunities for household and business consumers, including small and medium-sized businesses (SMEs) to access various financial services. Likewise, Fintech offers a variety of convenience, the speed of service, and lower costs and convenience for consumers in enjoying financial services. The important implications and benefits of Fintech are financial inclusion which is

[25] Warta Ekonomi, 2016. If Fintech is not set, it can create Shadow Banking. Downloaded on March 1, 2018 at 10:53, from https://www.wartaekonomi.co.id/read104393/ if-unregulated-fintech-can-create-shadow-banking.html

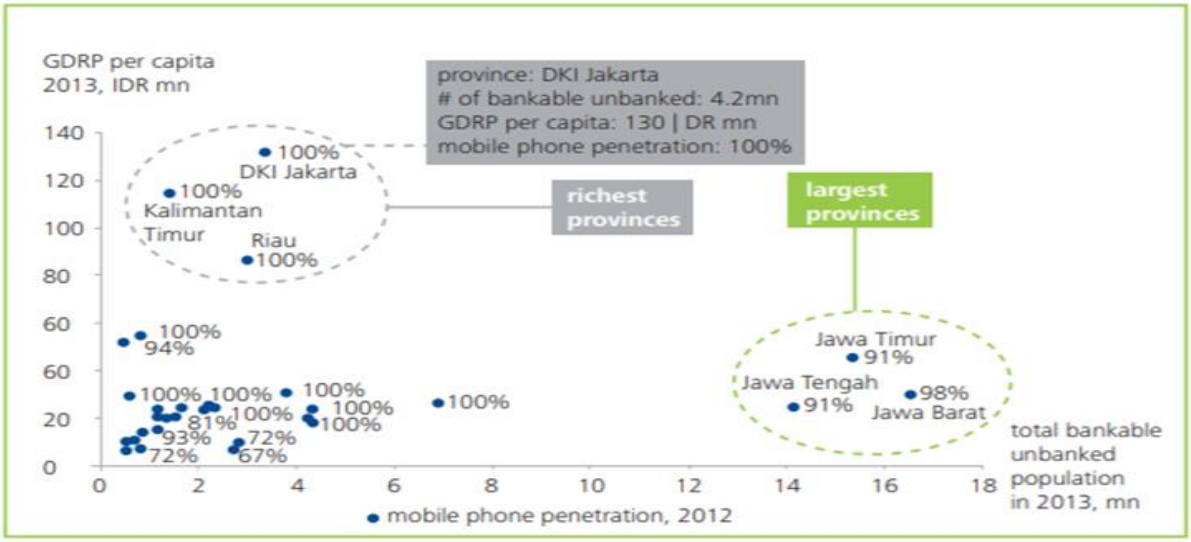
[26] Sudaryanto. Ragimun. Wijayanti.R. 2013. The SMEs Empowerment Strategy Faces the ASEAN Free Market. Financial and Monetary Journal. Fiscal Policy Agency Ministry of Finance.Vol.16 / No.1 / 2013

[27] Irma.M. Inayah.A.R. Bella G.N. 2018. Masharif al-Syariah Journal: Journal of Economics and Sharia Banking / Vol. 3, No. 1, 2018

[28] IOSCO. 2017. IOSCO Research Report on Financial Technologies (Fintech). Downloaded May 18 2018 at 09.14, from https://www.iosco.org/library/pubdocs/pdf/IOSCOPD554 .pdf

expected to be able to promote sustainable economic growth and enable income diversification, especially for SMEs and can overcome various investment risks. In addition, currently technological innovations in financial services are developing very rapidly in new ways and utilizing varied business models, such as business models using big data technology, artificial intelligence (AI), machine learning, cloud computing, biometrics and etc. The role of Fintech in Indonesia is very necessary because it is expected to be able to encourage the level of community welfare, help fulfil domestic financing needs, encourage more even distribution of national financing in each province, increase national financial inclusion and can boost the ability of small and medium industrial exports. Following is the development of indicators of potential digital financial services in 33 provinces in Indonesia. The above policy is in line with inclusive financial policies. These policies include financial service deepening which targets the lower middle class. Thus, the expected financial services in Indonesia are not intended for the upper middle class only, but also for the lower middle class. Therefore, every Indonesian citizen has the right to have easy access to financial products. As a monetary regulator in Indonesia, currently Bank Indonesia has an index that aims to measure the level of financial inclusion called IIK, the Inclusive Financial Index. IIK consists of three main variables, namely access, usage and quality.

Figure 3: Potential Macro Indicators of Digital Financial Services in 33 Provinces in Indonesia



Source: OECD Economic Survey of Indonesia, 2012

Figure 3 shows that the potential of digital financial services in several provinces that are quite rich such as the Special Capital Region(Jakarta), Riau and East Kalimantan, has large regional transfers compared to other provinces is expected to drive regional economic growth. Thus there will be an increase in financial services in the region, especially for small and medium entrepreneurs. On the other hand there are three large provinces that have a bankable population to improve their digital financial services such as East Java, West Java and Central Java. Third, provinces that have relatively low Gross Regional Domestic Product (GRDP), need to be encouraged in order to improve access and financial services. Financial inclusive conditions are expected to provide benefits, among others, improving economic efficiency, supporting financial system stability, reducing shadow banking or irresponsible finance, supporting financial market deepening and providing the new market potential for banks. In addition, it is also expected that it will support the improvement of Indonesia's Human Development Index (HDI), can contribute positively to sustainable economic growth both locally and nationally and low-income trap rigidity, so as to improve the welfare of the community, which ultimately leads to a decrease in poverty. According to the financial approach, financial literacy can be interpreted as financial ability.

The Financial Services Authority as a financial services regulator had conducted a survey in 2013 to assess the level of financial literacy of the Indonesian people. The results of the survey are that the implementation of education in order to improve financial literacy in the community was very much needed. The level of financial literacy of the Indonesian population is divided into four parts, namely: Well literate (21.84%),

which has knowledge and beliefs about financial service institutions and financial services products, including features, benefits and risks, rights and obligations related to financial products and services, as well as having the skills to use financial products and services. Sufficient literate (75.69%), has knowledge and beliefs about financial service institutions and financial products and services, including features, benefits and risks, rights and obligations related to financial products and services. Less literate (2.06%), only has knowledge of financial service institutions, financial products and services.

Not literate (0.41%), lacks knowledge and beliefs about financial services institutions and financial products and services, and lacks skills in using financial products and services. Financial literacy is an important thing that everyone should have. A person with good literacy will be able to see money from a different perspective and have control over his financial condition. The person will know what to do with the money they have and how to use it. Likewise, in institutions or institutions such as small and medium enterprises that also have to have financial literacy to advance their business. Small and medium industries which are usually creative industries generally still have difficulties accessing banking. Though banks have used fintech as one of its marketing tools. Currently there is a People's Business Credit (KUR) for the creative industry, giving KUR to the creative industry requires several things, namely: the establishment of technical guidelines for KUR distribution, and the need for socialization so that the public gets information about the KUR creative economy.

At present, KUR Ekonomi Kreatif is distributed with the same scheme as KUR in general due to the distribution of sectoral KUR with special schemes (eg specificity in terms of the grace period and payback period) which cannot be accommodated in the Coordinating Minister for Economic Affairs Regulation No. 13 of 2015. This is different from the previous Coordinating Minister for Economic Affairs Regulation, Coordinating Minister for Economic Affairs Regulation No. 8 of 2015 which allows for special sectoral KUR schemes (only regulating perennials). In Coordinating Minister for Economic Affairs Regulation No. 8 of 2015 stated that the period of KUR specifically for perennials is 10 years with the grace period agreed upon by KUR suppliers according to their characteristics, which is different from the general KUR scheme, which is 4 years for financing or working capital loans and 5 years for financing or investment credit. Another obstacle in the implementation of fintech is the difficulty of coordinating institutional arrangements for the development of technology-based SMEs, such as grant funding to start-up tech businesses constrained by State Expenditure Budget (namely APBN) regulations that currently do not allow grants.

In addition, alternative funding sourced from certain funds, for example funds for Innovative and Productive Research, the Education Fund Management Institute (namely LPDP), the Government Investment Center (namely PIP), and the utilization of the Universal Service Obligation (USO) fund of the Ministry of Communication and Informatics still require more discussion. In connection with the above, the necessary follow-up is to review other forms of funding through expenditure schemes that are in accordance with State Expenditure Budget regulations. Coordinate between ministries and agencies to get input to determine the right scheme for tech start-up funding for each funding alternative. In addition, it continues to implement fintech, especially in banking institutions that provide breakthroughs and innovations in banking services that are faster, easier, and safer so that all elements of Indonesian society can enjoy access to these services. In addition to the relatively low use of fintech for access to banking institutions, other factors that make Indonesian society still have difficulties in accessing banking services, particularly in the LOR (Leading, Outermost and Remote) areas, are the unequal access to banking services. The inequality of access to banking services is still a problem that continues to be faced by banking institutions, especially people in remote areas that cannot be reached by these banking and financial services institutions. This is also due to the condition of the people who are not yet fully familiar with banking services and other financial services, so that they have the potential to be exploited by illegal funding parties such as moneylenders (Habibi, 2016)[29].

Fintech's Role in SMEs: At present a number of fintech companies have contributed to the development of SMEs, not only assisting in business capital financing but fintech also plays a role in various aspects such as digital payment services and financial arrangements. Some fintech services for SMEs, among others.

[29] Habibi, Y. 2016 Smart Practice Reflections. Republika. Downloaded on April 17, 2018 at 10:21, from http://www.republika.co.id

A. Capital loan: Some fintech companies provide capital loan services with a simpler submission process than conventional financial institutions such as banking. Such facilities such as not needing to surrender guarantees and only complete some document requirements, this online loan service is an alternative to conventional bank loans or other financing companies. The proposed funding will usually be disbursed in a relatively shorter period of less than a week. There are several examples of fintech companies that provide online loan services such as Modalku.co.id and Pinjam.com.

B. Digital Payment Services: Fintech companies usually also provide digital payments that are easier and safer for businesses. With an easier and safer payment process, this will be able to attract more consumers so that it will benefit businesses or SMEs. One of Fintech that provides digital payments is the Jenius application that synergizes with online transportation service companies.

C. Financial Management Services: There are several applications that offer financial management services. This innovation aims to help SME businessmen in managing corporate finances. Services provided include recording expenses, monitoring investment performance, and financial consultations at no charge. Some fintech companies that provide financial management services such as Dompetsehat.com and Ngatur duit.com. Data from the Ministry of Cooperatives and SMEs in 2017 shows that foreign exchange from SMEs is very high reaching 88.45 billion Rupiah. This figure has increased to eight times compared to 2016.

Fintech Regulation: Fintech startups will not appear much if you don't have a big role. At present many things have made the development of fintech able to influence the lifestyle of the world community including Indonesia. These reasons make fintech continue to grow into a new need for the community. Some reasons that make fintech an important area for the lifestyle and financial condition of the world community. But the regulation is not maximized (Fahlevi, 2016)[30]. The financial sector has an important role to support a country's economic strength. With the development of increasingly advanced technology, the financial sector also experienced a more modern and practical development. This is what drives the fintech business to grow rapidly in Indonesia. Moreover, supported by Indonesia as the 5th largest country in the world as an internet user.

Table 2: Fifteen Countries with the Highest Number of Internet User

#	Country or Region	Population, 2018 Est.	Population 2000 Est.	Internet Users 31 Dec 2017	Internet Users 31 Dec 2000	Internet Growth
1	China	1,415,045,928	1,283,198,970	772,000,000	22,500,000	3,331 %
2	India	1,354,051,854	1,053,050,912	462,124,989	5,000,000	9,142 %
3	United States	326,766,748	281,982,778	312,322,257	95,354,000	227 %
4	Brazil	210,867,954	175,287,587	149,057,635	5,000,000	2,881 %
5	Indonesia	266,794,980	211,540,429	143,260,000	2,000,000	7,063 %
6	Japan	127,185,332	127,533,934	118,626,672	47,080,000	152 %
7	Russia	143,964,709	146,396,514	109,552,842	3,100,000	3,434 %
8	Nigeria	195,875,237	122,352,009	98,391,456	200,000	49,095 %
9	Mexico	130,759,074	101,719,673	85,000,000	2,712,400	3,033 %
10	Bangladesh	166,368,149	131,581,243	80,483,000	100,000	80,383 %
11	Germany	82,293,457	81,487,757	79,127,551	24,000,000	229 %
12	Philippines	106,512,074	77,991,569	67,000,000	2,000,000	3,250 %
13	Vietnam	96,491,146	80,285,562	64,000,000	200,000	31,900 %
14	United Kingdom	66,573,504	58,950,848	63,061,419	15,400,000	309 %
15	France	65,233,271	59,608,201	60,421,689	8,500,000	610 %

Source: Internet World Stats, internetworldstats.com, 2018

[30] Fahlevi I. Simon. 2016. The Role of Financial Technology and its Regulations in Indonesia. Journal. Downloaded on March 6, 2018 at 11:24 a.m. from https://www.jurnal.id/id/blog/peran-teknologi-finansial-serta-regulasiinya-di-Indonesia

Current progress in several fields of fintech, including payment processing, bookkeeping process, buying and selling shares, borrowing money and others. Fintech regulations in Indonesia are still being reviewed by the Financial Services Authority (namely OJK). OJK ensures that it will oversee the business that fintech undergoes with a number of strict rules related to determine the minimum capital limit of the fintech industry. Thus this regulation will aim to protect consumers. OJK will issue regulations regarding digital financial innovation. These rules are aimed at fintech-based financial companies. While Bank Indonesia as the central bank in Indonesia has also issued Bank Indonesia Regulation number 19/12/ PB /2017 concerning the implementation of fintech. There are three main pillars for Indonesia to achieve financial inclusion through the development of the fintech industry. First, building adequate infrastructure. Secondly, creating regulations that are clearer and more targeted, and thirdly is forming stronger integration and synchronization between Fintech business players, monetary regulators, financial services and fiscal. Everything will not be achieved without positive coordination and collaboration. Some of the agenda of the Government's attention to the actors of the fintech sector include regulations on the use of electronic signatures, digital Know Your Customer (KYC) operations, data security, processing payment transactions and electronic wallets or money, as well as online loan-based legal capacity.

Other support from the government is the presence of the BI Fintech Office which was launched on November 14, 2016, which is intended as a forum for review, risk mitigation, evaluating business models and fintech products or services, as well as research initiators related to technology-based financial service activities. On the other hand, the support of traditional financial institutions can be seen from the increasing number of strategic partnerships carried out with Fintech start-up companies. Collaboration and synergy between all stakeholders (government, regulators and businesses) is the key to the strength of the financial ecosystem and is the most appropriate formula to accelerate the realization of financial inclusion for all Indonesian people including SMEs. This will enable all levels of the population to utilize more financial products and services, improve their welfare, alleviate poverty and ultimately contribute to national economic growth (Luhur, 2017)[31].

Fintech Solution for Smes: In detail some of the fiscal incentives that have been available to encourage the development of SMEs in Indonesia include the provision of Tax Holiday, Tax Allowance, Restrictions on Simple House Prices Exempted from Imposition of Value Added Tax, Government Borne Income Tax for geothermal commodities and interest on returns SBN issued in international markets, reduction for motorized vehicles (hybrid and low cost green car). Likewise, facilities are not collected from Value Added Tax (VAT) and Value Added Tax on Luxury Goods on taxable goods that get an exemption from import duties, according to certain criteria, for example import of goods for upstream oil and gas exploration and geothermal exploration. This includes a reduction in some tariffs on import duties, exemptions from import duties on capital goods imports in the framework of the development and development of the electric power industry for the public interest and the provision of government borne import duties. The facility facilities will be optimal and utilized by the SMEs so it must continue to be socialized to the community and use fintech as a supporting tool.

The government has also provided various convenience facilities not only for big businessmen but also for SMEs or small and medium industries such as facilities for the Import of Export Purpose (namely KITE) for SMEs. This facility is given to export-oriented small industries in the form of exemption from import duty and Value Added Tax (VAT). The purpose of this facility is to make the Indonesian industry more efficient and the results of medium industries products can compete in the international market. The process and activity of this facility service can be done with Electronic Data Interchange (EDI) so that it is faster. It is hoped that with the advancement of fintech the service will also be improved so that it is simpler, easier and more useful for users. Referring to the goals and direction of SME empowerment policies, a strategy is needed in the macro,

[31] Luhur, Niki. 2017. Fintech and Its Existence: Swear or Collaberative. Indonesian Fintech Association. downloaded July 25 2018 from https://fintech.id/ Idea% 20PDF/Fintech%20Talk%20-20Opini%20Editorial%201%20-Fintech-%20 Mengusik % 20 atau %20 Kolaboratif-%20-%20 Niki%20 Luhur.pdf

and micro order through the implementation of SME empowerment programs as follows: Creation of SMEs business climate.

The aim of this program is to facilitate the implementation of a business environment that is economically efficient, healthy in competition, and non-discriminatory for the survival and improvement of the performance of small and medium enterprises. Development of business support systems for SMEs. The program aims to facilitate, expedite, and expand access of SMEs to productive resources in order to be able to take advantage of open opportunities and the potential of local resources and adjust the scale of business in accordance with the demands of efficiency. Entrepreneurship development and SMEs excellence. The program is aimed at developing entrepreneurial spirit and spirit and improving the competitiveness of SMEs, so that knowledge and entrepreneurial attitudes develop and productivity increases; Small-scale Business Empowerment. The program is intended to increase the income of people engaged in economic business activities in the informal sector with micro-scale business, especially those who are still in poor families in order to obtain a fixed income, through efforts to increase business capacity, so that it becomes a more independent business unit.

Lessons Learned in Some Countries Concerning Fintech: When looking at the development of fintech in several countries such as Australia, SMEs are an important part of the economy, which constitutes 97 percent of the business and employs more than 47 percent of the workforce. The Australian Government has launched the Victoria Start-up Initiative worth AU $ 60 million to develop and support Fintech. SMEs usually face many problems, such as with cash flow, and also the difficulty of opportunities to develop such as expansion. Fintech is a solution for both problems. Boomerang is a cash flow management and budgeting management tool, integrated with banks, credit cards and loan accounts, and types of expenses and cash flows by category, helping budget and bill payment reminders. In terms of loans for expansion, Moula is a startup that provides alternative loan platforms for SMEs in Australia. Moula provides data-based addition le. In addition, for SMEs, when businesses are not known, they do not have the reputation and need to gain the trust of potential customers. Escrow options will take advantage of customer trust, allowing them to pay as soon as they receive their goods. Generally, people who run SMEs have many roles. Thus, the adoption of technology, especially Fintech, needs to be adjusted to a simpler business process, enabling a shorter Learning Curve.

Luke Hally4 emphasizes that FinTech, in the context of SMEs, primarily revolutionizes the payment process through more smooth and user-friendly transactions, which in turn will contribute to a stronger economy. Unlike the previous section, this section of the book explains Fintech solutions from a business perspective. This explains how FinTech can be useful not only for businesses, but also for their suppliers and customers. As such, this section is a good reference for SMEs, and readers who are considering building their startups. Nding platform based on SME transaction data and company profile (Amalia, 2016)[32], To anticipate the occurrence of several trade disputes and export-import activities between APEC member countries, especially those carried out by SMEs, the Online Dispute Resolution (ODR) service is being developed, which will help SMEs related to legal legal certainty, legal certainty for businesses and help to invest in the future that is more certain so as to reduce uncertainty. The development of electronic commerce today, has inspired electronic dispute resolution. In the midst of a legal system that does not keep up with the times and the rapid advances in technology has led to the idea of dispute resolution online, in the form of online arbitration (E-Arbitration). Online arbitration is an attractive choice in resolving E-Commerce disputes. Characteristics of transactions on the internet are cross-border geographic transactions that connect consumers with businesses from various countries including MSEs that can cause disputes. The dispute in question is a relatively small nominal value, but requires a quick settlement, and with a cost that is not too expensive. Therefore ODR is a provider of dispute resolution services, specifically for disputes online.

[32] Fitri Amalia. 2016. The Fintech Book: The Financial Technology Handbook for Investors, Entrepreneurs and Visionaries. Journal of Indonesian Economy and Business Volume 31, Number 3, 2016. Gajah Mada University

Expanding Access to Network Marketing Information for SMEs: In dealing with an increasingly open and competitive market mechanism, market control is a prerequisite for improving the competitiveness of SMEs. In order to master the market, SMEs need to get information quickly and easily, both information about the production market and the factor market. Information about the production market is needed to expand the marketing network of products produced by SMEs. Information on market production or commodity markets that are needed for example (1) what type of goods or products are needed by consumers in a particular area, (2) how is the purchasing power of the product, (3) what is the prevailing market price, (4) consumer tastes in local, regional and international markets. Thus, SMEs can anticipate various market conditions so that in carrying out its business will be more innovative.

Whereas the production factor market information is also needed especially to find out: (1) the source of raw materials needed, (2) the price of raw materials to be purchased, (3) where and how to obtain business capital, (4) where to get a workforce that professional, (5) the level of wages or salaries that are appropriate for workers, (6) where can obtain the necessary tools or machines (Effendi Ishak, 2005)[33]. Complete and accurate market information can be utilized by SMEs to plan their business appropriately, for example: (1) making product designs that consumers like, (2) determining prices that compete in the market, (3) knowing the market to be targeted, and many other benefits. Therefore, the role of government is very necessary in encouraging the success of SMEs in gaining access to expand their marketing network. In addition to having the ease and speed in obtaining market information, SMEs also need to have convenience and speed in communicating or promoting their businesses to consumers widely both at home and abroad.

So far, the promotion of SMEs is mostly done through joint exhibitions in limited time and place, so that the continuity of relationships and transactions with consumers cannot be guaranteed. This can be caused by long distances or lack of communication intensity. Even though the communication factor in running a business is very important, because communication will make a strong emotional bond with existing customers, it also allows the arrival of new customers. In relation to the above, the Government needs to establish communication with SMEs or by establishing SME communication centers under the Ministry of Cooperatives and Small and Medium Enterprises to provide various information, market access and others. In terms of regulators the need for caution regarding the mushrooming of Fintech companies. The Investment Alert Task Force found 227 fintech companies peer to peer (P2P) lending that did not have permission from the Financial Services Authority (OJK) as the regulator. Nearly half of that amount is illegal fintech originating from China which is proven to violate Financial Services Authority Regulation Number 77 / POJK.01 / 2016, that each lending organizer is obliged to submit registration and permission from OJK. The Chinese company is interested in targeting the Indonesian market, because the potential for online lending and borrowing in Indonesia continues to grow, on the other hand, regulators in China continue to tighten (Cash, 2018)[34].

Fintech Helps SMEs Increase Export Activities: There are several ways Fintech encourages SMEs to increase export activities, which include the following: Fintech as a loan platform provider Fintech provides very easy access for borrowers to SMEs. One of them is making loans online. Thus, SME owners only need to include the documents needed online. Lending can be assessed from various aspects, not only relying on business credit value and the background of the business owner. So that the approval process takes only a few days or hours. Fintech makes everything done online in the past, when we wanted to use a credit card, we needed an account from the owner and also an expensive credit card machine. At the moment, everything is easy with online purchases. Even PayPal-type companies have made payments online, bills, credit and employee payroll. This makes it easy for businesses to make transfers easily without having to have an

[33] Effendi Ishak. 2005. Article: Role of Information for SME Progress. People's Sovereignty. Yogyakarta

[34] Cash. 2018. OJK: Many Fintech from China operate without permission in Indonesia. Cash newspaper. Downloaded 30 July 2018 at 08.35, from http://keuangan.kontan.co.id/news/ojk-banyak-fintech-asal-china-beroperasi-tanpa-izin-di-indonesia

account. Even all can be done via mobile phones, including SMEs can make sales and payment offers using applications from smartphones. Fintech makes mass payments easier Fintech facilitates an extensive advertising network and internet-based businesses, partners and affiliates as its flagship.

Instead, these companies require mass payments. This can be a complicated process because these companies are generally spread abroad, so they must adapt to all regulations and bureaucracy in these countries. With fintech, this can be done easily, without any hassle. Payment is also made with guaranteed security, using the same rules as the bank, even with anti-terrorist rules. Fintech makes it easy to check payments for SMEs, maintaining the financial process can be complicated and time-consuming. With fintech, the entire process will be done online. So, with a matter of minutes, SMEs can manage all financial processes in a transparent and effective manner. Even in some cases, customers also benefit from an online process. This is a win-win solution for customers and businesses. Fintech makes payment bills easier SMEs find it difficult to arrange bill payments every month or every year. Business owners may delay payments until the due date to facilitate cash operations, but at the same time, late payments will adversely affect the reputation of the company and subsequent payment activities. Fintech will assist these processes. They help in arrangements to pay bills on time. Bill payments can be made online and you don't have to bother using check and envelopes or look for stamps. As an SME, fintech service providers can be a savior in terms of finance, payments and other financial services.

5. Conclusion and Recommendations

Fintech has an important role in helping the financial literacy of Indonesian people including SMEs. Several obstacles to the dissemination of the role of fintech continue to be overcome through a variety of ways including infrastructure improvements, socialization and financial literacy to SMEs and the creation of fintech regulatory policies that can encourage increased exports. Fintech has a relatively good level of effectiveness to improve the quality of financial and banking system services in Indonesia. The implementation of fintech in Indonesia is still relatively new and studies, socialization and literacy are still needed that are relevant to financial technology. Need to follow-up efforts from the government, OJK, banking practitioners, as well as financial technology service providers to conduct a more in-depth study, socialization and financial literacy. Therefore, banking institutions and financial technology service providers need to collaborate and coordinate with various institutions, including the government, central bank (Bank Indonesia) and OJK. Likewise, the government needs to make clear and aligned rules to foster and avoid the risk of the financial services industry. The government can also establish a communication center for SMEs to provide information and market access and other events. This is crucial because the development of fintech in Indonesia is very fast.

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