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(SESRIC)

Contents

Editorial

This issue of the Journal of Economic Cooperation and Development includes nine papers that empirically examine current drivers and efficiency of developing economies. To a large extent, the authors of these papers introduce contemporary advances in policy and economic analysis globally. The empirical results of these papers highlight various investment and political implications with causal effects explained by economic growth, fiscal and monetary policy, and political institutions.

Islam and Ahmad conceptualized a microfinancing model that integrates Mudarabah, Musharakah and Musharakah Mutanaqisah. This model presumably, can ensure sustainable economic livelihoods for the poor entrepreneurs by enhancing their income through higher entrepreneurial exercises while providing them with the ownership of tangible assets. The authors qualitatively assessed the efficacy; after consultation with scholarly experts, they find reason to asset the involvement of third-party guarantors, cash waqf, and technology usage will augment the usefulness of this financing approach. Outcomes of this study will help incorporate MM&M within the context of Islamic microfinance while opening windows for further research.

Kanafi et al. examine the influence of driving motivation, attracting motivations, motivations of Islamic attributes to the loyalty of visits through the satisfaction of visiting, from tourists who come to Indonesia. The results highlight the importance of Islamic attributes related to tourism; the contributions follow: (1) religion drives business decisions, (2) there are many efforts to increase tourist satisfaction and loyalty, and (3) government implementation of enhanced marketing strategies.

Dossou investigates the effects of Global Capital Inflows (GCI) on banking sector profitability. Over 2009 to 2018, Foreign Direct Investments, Foreign Portfolio Investments, External Short Term Debts, and Remittances had positive effects on banking sector ROA and ROE in EM-20 countries. For FDI, FPI, and REM, the magnitudes of the effects intensified after the crisis; ESTDBT showed the opposite. Among the control variables, those which had positive effects were the Economic-growth, Inflation, and Interest rate, while Exchange rate showed negative effects.

Mehmood et al. Present study inspects the effect of country-level institutional quality on public debt in Bangladesh, Bhutan, India, Nepal, Pakistan, and Sri Lanka. Findings suggest that governance indicators, namely political stability and control of corruption are negatively significant to explain public debt; government effectiveness and rule of law are significantly positive with public debt. Although the long-run estimates show homogeneity, the short-run estimates and the adjustment speeds to the long-run equilibrium are heterogeneous, attributable to volatile governance. Policy makers face an urgent need to focus on public debt management issues which can be reduced through improvements in country-level institutional quality indicators.

Fakhruddin et al. measure the degree of economic independence of Bangladesh using time series data from 1990 to 2016. The study uses an economic independence index to quantify its ability to survive unilaterally. It then estimates the composite index using definite weights assigned to each indicator and to each dimension. Altogether, the estimated value provides a tool for the government of the country to determine the direction and magnitude of action required to improve its level of economic independence.

Rifin et al. explore the factors that made it difficult for Malay entrepreneurs to obtain assistance from the government. First, the entrepreneurial attitude among Malay citizens has arguably set them back. Second, there is a lack of understanding, knowledge, and communication between the Malay entrepreneurs and the government agencies at the implementation stage. Additionally, the bureaucratic attitude, political influence, and policies create success bias among entrepreneurs.

Hasan and Alvi examine what insights the Islamic literature can provide with respect to behaviorally tackling unemployment. Using a focus group, they find many students to clearly lack an articulated career path. In retrospect, the paper highlights recommendations for policymakers and higher education institutions to enhance exposure to professions and root religious values as a form of motivation.

Irfan et al. examine the volatility of Shariah indices of the gulf cooperative council due to coronavirus. The analysis shows that there is a negative leverage effect of bad news has more than the impact on conditional variance than good news. Here, GCC Shariah Indices are impacted due to coronavirus (Covid- New cases, Covid death cases) news spread in the market.

Köktaş et al. analyzes the impact of public education expenditures on regional economic development in Turkey. The study reveals a positive relationship between central government education expenditures and regional development. In other words, regional development accelerates if education expenditures increase. However, the magnitude of the effect is not as strong as is expressed in the hypothesis: a ten percent increase in education spending only increases economic development by 1.1 percent.

Nebil DABUR
Editor-in-chief

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Incorporation of *Mudarabah*, *Musharakah* and *Musharakah Mutanaqisah* with Microfinance: A Sustainable Livelihood Approach to Poverty Alleviation

Reazul Islam[1] and Rubi Ahmad[2]

ABSTRACT

In this paper, we have conceptualised an integrated microfinancing model by using *mudarabah*, *musharakah* and *musharakah mutanaqisah* (MM&M) instruments. This model presumably, can ensure sustainable economic livelihoods for the poor entrepreneurs by enhancing their income through higher entrepreneurial exercises while providing them with the ownership of tangible assets. To assess the viability of this model, we conducted a study adopting the qualitative method. We took in-depth interviews of three experts in Islamic finance and banking by using an open-ended questionnaire articulated with the vital issues of MM&M financing. According to experts' opinions, relevant skills, religiosity, and product knowledge can be considered clients' primary attributes for letting them access these financing schemes. Nevertheless, the involvement of third-party guarantors, cash *waqf*, and technology usage will augment the usefulness of this financing approach. Outcomes of this study will help incorporate MM&M within the context of Islamic microfinance while opening windows for further research.

ملخص

في هذه الورقة البحثية، قمنا بوضع تصور لنموذج متكامل للتمويل الأصغر باستخدام أدوات المضاربة والمشاركة والمتناقصة (MM&M). ومن المفترض أن يضمن هذا النموذج سبل العيش الاقتصادية المستدامة لأصحاب المشاريع من فئة الفقراء عبر تعزيز دخلهم من خلال ممارسات ريادية أعلى مستوى مع تزويدهم بملكية الأصول الملموسة. ولتقييم جدوى هذا النموذج، أجرينا دراسة تعتمد

[1] School of Business and Social Sciences (SBSS), Albukhary International University (AIU), Kedah Darul Aman, Malaysia, Email: reazul.phd@gmail.com.
[2] Faculty of Business and Economics, University of Malaya (UM), Kuala Lumpur, Malaysia, Email: rubi@um.edu.my

الأسلوب النوعي. وأجرينا مقابلات متعمقة مع ثلاثة خبراء في التمويل الإسلامي والخدمات المصرفية باستخدام استبيان مفتوح يشمل تفصيلا عن القضايا الهامة للتمويل الذي يعتمد أدوات المضاربة والمشاركة والمتناقصة ووفقا لآراء الخبراء، يمكن اعتبار المهارات ذات الصلة والتدين والمعرفة بالمنتج سمات أساسية في العملاء للسماح لهم بالوصول إلى مخططات التمويل هذه. ومع ذلك، فإن إشراك جهات ضامنة خارجية، والوقف النقدي، واستخدام التكنولوجيا ستزيد من فائدة نهج التمويل هذا. وستساعد نتائج هذه الدراسة على دمج أدوات المضاربة والمشاركة والمتناقصة في سياق التمويل الأصغر الإسلامي مع فتح المجال لمزيد من البحث.

ABSTRAITE

Dans cet article, nous avons conceptualisé un modèle de microfinancement intégré en utilisant *les instruments mudarabah, musharakah et musharakah mutanaqisah* (MM&M). Ce modèle peut vraisemblablement garantir des moyens de subsistance économiques durables aux entrepreneurs pauvres en améliorant leurs revenus grâce à des exercices entrepreneuriaux plus poussés tout en leur permettant de posséder des actifs tangibles. Pour évaluer la viabilité de ce modèle, nous avons mené une étude en adoptant la méthode qualitative. Nous avons mené des entretiens approfondis avec trois experts de la finance et de la banque islamiques en utilisant un questionnaire ouvert articulé autour des questions vitales du financement du MM&M. Selon les avis des experts, les compétences pertinentes, la religiosité et la connaissance des produits peuvent être considérées comme les principaux attributs des clients leur permettant d'accéder à ces systèmes de financement. Néanmoins, l'implication de garants tiers, le *waqf* en espèces et l'utilisation de la technologie augmenteront l'utilité de cette approche financière. Les résultats de cette étude permettront d'intégrer le MM&M dans le contexte de la microfinance islamique, tout en ouvrant des perspectives pour de futures recherches.

Keywords: *Mudarabah, Musharakah, Musharakah Mutanaqisah*, Islamic Microfinance, Sustainable Livelihoods.

JCL Classification: D2, D6

1. Introduction

In the Islamic banking and finance portfolio, *mudarabah* and *musharakah* (M&M) are characterised as profit and loss sharing (PLS) based partnership agreements. M&M seek clients' entrepreneurial skills and good morals while demanding no physical collaterals (Eigindi et al., 2009; Ariffin et al., 2015). The provision of collateral-free financing encourages assetless entrepreneurs to be involved with these instruments, and the underlying risk-sharing mechanism decreases their financial burden if they encounter any loss during the business operation. Herein, another type of *musharakah* denominated as *musharakah mutanaqisah* offers clients the opportunity to own tangible assets through a diminishing lease-rental process (Meera et al., 2009). Tangible assets function as the collateral for future borrowing or can be liquidated to address the problem (Mok et al., 2007). Hence, asset ownership strengthens them to stand against economic adversities as well as lowers the chance of falling into the poverty trap. Nowadays, microfinance is notably becoming a viable source of finance for the entrepreneurial poor in the developing and least developing world (Ahmed et al., 2021). In the same vein, Islamic microfinance with a range of products is rapidly growing in its market niche. *Mudarabah*, *musharakah*, and *musharakah mutanaqisah* (MM&M) can be integrated within the context of Islamic microfinance to serve poor entrepreneurs better. MM&M instruments require business skills and partnership agreements.

Every business deal with social capital by committing interactions with stakeholders. Once the business generates financial capital through commercial exercises, it brings economic nourishment to individuals and society. Nonetheless, entrepreneurial capital, a combination of human capital and social capital, enormously contributes to business competitiveness. A collaboration between these two elements (human capital and social capital) strengthens desired economic growth (Prasetyo et al., 2020). In that light, MM&M financing schemes enhance clients' human capital since all of them require business skills at the first place. Entrepreneurs as well as the financing institutions very on maximising profit that brings higher competitive values while incentivising both. In the same vein, these instruments catalyse social capital and financial capital by increasing tangible assets and offering entrepreneurs the asset ownership. Since, they get operationalised through mutual efforts, and trust they build bondage among participating parties and financial institution. Hence, they extensively contribute to social capital as well (Saad & Razak, 2013).

Thus, this financing instrument can enormously contribute to sustainable livelihoods of poor entrepreneurs. Based on this logical reasoning, we intended to develop a comprehensive MM&M microfinancing model. To articulate this model, we focused on two objectives as stated below:

1.1. Designing a comprehensive microfinancing model based on *mudarabah*, *musharakah*, and *musharakah mutanaqisah* principles.

1.2. Justifying this model's viability by the Islamic finance experts.

We will discuss the relevant literature, methodology, findings & discussion, and conclusion in the following sections.

2. Literature Review

For the sake of a comprehensive discussion and a better understanding of the relevant issues, we are going to review the relevant literature in the following sections. At first, we will cast light on sustainable livelihood and the Islamic perspective towards poverty. Then, we will narrate the concept of profit and loss sharing (PLS) microfinance. In the end, we briefly explain the client selection process, the importance of religiosity, knowledge, education, income, savings, and business experiences.

2.1. Sustainable Livelihood Approach to Poverty Alleviation

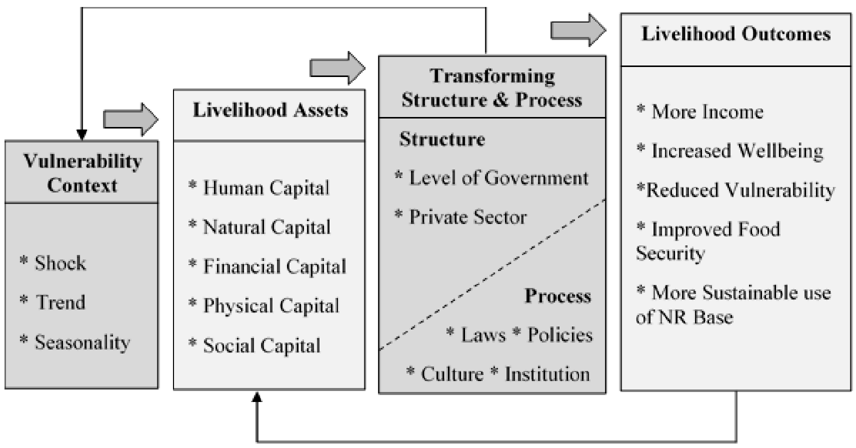
The sustainable livelihood (SL) approach was added to the body of development economics since the 1980s (Ashley & Carney, 1999). The concept of SL suggests that enhancing poor people's capabilities can enable them to achieve future livelihood goals (Adato & Meinzen, 2002). In this regard, Chambers and Conway (1992) offered a comprehensive definition.

"A livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets, while not undermining the natural resource base (Chambers and Conway 1992, pg. 1)".

Development thinkers have specified the essential elements for economically, ecologically, and socially sustainable living (Krantz, 2001). Hence, SL includes environmental sustainability, social sustainability, adequacy of livelihoods, and safety net. To achieve these goals, it prioritises capability, equity and sustainability. In this regard, capability corresponds to coping with stresses and shocks while responding to adverse changes. This attribute helps people find and make use of livelihood opportunities.

Similarly, equity means the relative distribution of income and opportunities; and sustainability refers to enduring into the long term future, meeting the current needs without compromising the ability of future generations to fulfil their own needs (Chambers & Conway, 1992; Robertson, 2017). The term ‘livelihoods’ refers to the living that can be accomplished by creating jobs (Adato & Meinzen, 2002). Thus, sustainable livelihood (SL) systematically analyses the causes of poverty while defining the necessary actions by explaining their implications and impacts. SL approach emphasises developmental practices placing people’s wellbeing as the priority (Ashley & Carney, 1999). For instance, SL gives priority to access to clean water, financial services, education, land, physical safety, gender issue, social relationship, economic security and vulnerability to natural calamity (Naraya et al., 2000). In this regard, the Institute for International Development Studies at the University of Sussex, Oxfam, and the Department for International Development (DFID) (UK) jointly designed a comprehensive SL framework as depicted below (Harvard Humanitarian Initiative [HHI], 2014).

Figure 1: Sustainable Livelihoods Approach to Poverty Alleviation



Source: Department for International Development, UK (DFID, 1999)

Figure (1) above displays the process flow of SL, which is set to achieve the specific ‘livelihood outcomes’ such as higher income, well-being, food security, reduced vulnerability, and improved environmental sustainability. It works on the ‘vulnerability context’ that comprises shock, trend, and seasonality to ensure outcomes. SL model emphasises enhancing natural capital, financial capital, social capital, physical capital, and human capital to eliminate vulnerabilities. Finally, this approach seeks the government’s intervention and private sectors’ involvement to accomplish the goals (DFID, 2001; HHI, 2014; DFID, 1999).

2.2. Islamic Perspective towards Poverty and Livelihood

Islam defines poverty as a social evil. This unwanted phenomenon degrades the socioeconomic condition by creating as well as catalysing numerous problems. It can even badly affect individuals’ religiosity leading to *kufr* (infidelity). It is worth mentioning, Islam’s Prophet (PBUM) sought Allah’s bounty to be safe from the grip of poverty (Sadeq, 1997).

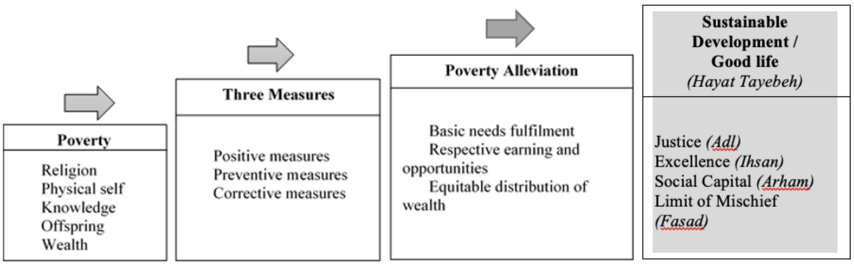
"O Lord, I seek your refuge from infidelity (kufr), poverty and destitution (faqr), and I seek your refuge from paucity (qillah) and humiliation (dhillah).”[3]

From the Islamic perspective, poverty means the scarcity of basic needs such as 1) food, 2) clothing, 3) shelter, 4) treatment, 5) education, and 6) a spouse. To set the benchmark of poverty, Islam considers two instruments: *urf* (the custom) and *zakat nisab*[4] (Sadeq, 1997). Even having a surplus amount of wealth, a person can be identified as poor if his/her asset is below *zakat nisab* (Sadeq 1997, Saladin et al., 2011). In this regard, the Islamic poverty indicator, termed as *had al kifaya* (HAK), is generally defined by the local *zakat* institution. To identify the poor household, HAK considers the size of the household, age, and the health condition of household members etc. (Saladin et al., 2011; Saladin & Ariffin, 2014). This scale measures poverty considering five essential elements: 1) religion, 2) physical self, 3) knowledge, 4) offspring, and 5)

[3] *Sunan an-Nasa'i* 5485 (Sunnah.com 2018, Sadeq 1997)
[4] *Zakat nisab* refers to the sufficient amount of wealth that makes obligatory for an individual to pay *zakat.*

wealth (Saladin & Ariffin, 2014; Ashraf & Hassan, 2013). Further, the Islamic poverty alleviation approach combines three initiatives such as:1) basic needs fulfilment, 2) respective earning opportunities, and 3) equitable distribution of income and wealth (Akhtar & Arif, 2000). Islam highly emphasises the mutual sharing of resources based on the principles of brotherhood and trusteeship. It further advocates collective duties for addressing social needs and poverty. Besides, Islam prioritises equal opportunities and social safety net while promoting compassion and selflessness. It pays optimum importance to the elimination of social inequality. In this regard, it obligates *Zakat* while promoting *Sadaqah, Waqf, Infaq* and benevolent loans such as *Qardul Hassan* (Akhtar and Arif, 2000; Mulyany and Furqani, 2019). Hence, Islam suggests three specific measures: 1) positive measures that deal with income distribution and its growth and equal opportunities for all; 2) preventive measures that prevent unlawful ownership, malpractices in economics, trade, and commerce; and 3) corrective measures that assure the fair transfer of payment and state responsibilities (Sadeq, 1997; Sadeq, 2002). Islam suggests income growth, functional distribution of income, and equal opportunity as positive measures for poverty alleviation. It emphasises moderate consumption behaviours at an individual level while stressing the need for halal earning. Islam also gives importance to equitable distribution of income. Hence it prioritises the production functions based on justice and fairness. This is why Islam promotes profit sharing and forbids *Riba* (usury). Similarly, to abolish the wealth concentration and prevent malpractices, Islam takes control over asset ownership. It dogmatises that ownership of everything belongs to Allah (SWT), and human beings are entitled to utilise them as trustees. Thus, natural resources are identified as public property. However, Islam also recognises private ownership with the condition of underlying ethical codes and norms. In the end, it obligates compulsory transfer of wealth (such as Zakat) in order to alleviate poverty. This transfer occurs from all well-off Muslims to worse-off people. Further, recommended transfer (charity) for the deprived to abolish disparity and poverty. And at the end, it emphasises states' responsibilities for ensuring a favourable environment for sound economic activities as well as creating equal opportunities for all (Ashraf and Hassan, 2013). Islam further invasions a sustainable society through good governance and justice (*Adl*), excellence (*Ihsan*), social capital (*Arham*), and integrity without corruption (*Fasad*). Good governance (*Adle*) is the primary device for attaining sustaining progress. Adle corresponds to ecological, cosmic, and human justice and harmony. In the same vein, Ihsan refers to the inner beauty and excellence of individuals, organizations, and society. *Arham* refers to social networks that connect people to the global community. In the end, Islam reinforces limiting mischief (*fasad*) to balance ecological and ethical values and enhance social progress. Thus, Islam paves the way forward to sustainable development and ensures a good life (*Hayat Tayebeh*) (Al-Jayyousi, 2016). Based on the above discussion Islamic approach to poverty alleviation can be portrayed as below:

Figure 2: Poverty Alleviation and Sustainability in Islam (by Authors)



Islam defines poverty based on five fundamental elements of human life such as religion, physical self, knowledge, offspring, and wealth, that implies the Islamic view towards poverty is seemingly wider and more holistic compared to the conventional one (Ashraf & Hassan, 2013). After meeting the basic needs, Islam offers wellbeing by extending earning opportunities and distributing wealth equitably. Nonetheless, by establishing justice (*Adl*), excellence (*Ihsan*), social capital (*Arham*), and integrity without corruption (*Fasad*) Islam envisions to achieve sustainable development (*Hayat Tayebeh*).

2.3. PLS Microfinancing

In the realm of Islamic finance, profit and loss sharing (PLS) is a provisional business partnership agreement that occurs between two or more parties. Herein, involved parties are committed to sharing the profit and loss that may result from the exercise of their joint ventures (Karsten, 2007). The proportional distribution of profit share incentivises the investors and thus, inspires them to undertake risky ventures and pay higher effort. On the other hand, the underpinning condition of sharing the loss rationalises fair judgement and mutuality. Therefore, the profit and loss sharing (PLS) approach in business expectedly yields a better outcome. *Mudarabah* and *musharakah* (M&M) are the most authentic profit and loss sharing (PLS) instruments in Islamic finance (Chong & Liu, 2009; Khan, 1987). *Mudarabah* business agreement relies on the fiduciary relationship (*aqd al amanah*) between two parties. One party provides financial capital for starting a business enterprise, and another party takes sole responsibility to run it. The capital provider is called *rab-al-mal* and the entrepreneur or the client, who manages the business, is called *mudarib*. *Rab-al-mal* capitalises the business with the condition of sharing a part of the profit but bearing the entire loss. But if the loss occurs due to *mudarib's* misconduct (*ta`addi*), negligence (*taqsir*), or breach of specified conditions (*mukhalafah al-shurut*) *mudarib* must carry the total or a portion of the loss (Sapuan, 2016 & BNM, 2012)[5]. Otherwise, *mudarib's* loss remains confined to his/her contributed time and efforts. The profit is distributed between the parties based on the pre-agreed ratio. *Mudarib* can claim his share of the profit at the end of the business cycle (Rosly, 2005; Borhan, 1997; Usmani, 1999).

On the other hand, *musharakah* is similar to the term *shirkah* that means *sharing.* In this contract, two or more parties contribute capital for running an existing or new venture on a temporary or permanent basis. This partnership is formed under the condition of sharing profit, loss, and liabilities. Partners are entitled to share, control, and manage the investment (Noraziah & Ghafar, 2010). The share of loss is distributed based on the proportion of the invested capital. Both parties are authorised to manage the business jointly; though, it is not mandatory always. Nevertheless, the profit-sharing ratio must be set upon mutual agreement, and this ratio might be different from the investment ratio (Abu-Umar & Rafique, 2016).

Musharakah mutanaqisah (diminishing *musharakah)*, a type of *musharakah* contract, takes place between two parties. In this partnership, one party gradually buys the whole property/ asset from another party through a gradually decreasing (diminishing) lase-rental process. The asset owner leases the asset to the client based on *ijarah* (lease) contract.

[5] BNM: Bank Negara Malaysia (Central Bank of Malaysia)

The client, as an owner-tenant, entails the property for a certain period under *ijarah* that gradually increases his/her share. After paying the total lease-rental, the client owns the asset, and thus, this partnership ends (BNM, 2007, 2010; Shanmugam et al., 2008).

Nevertheless, M&M financing schemes may encounter unsystematic risks such as idiosyncratic risks, agency problems, information asymmetry, and moral hazard (Chong & Liu 2009; Dar & Presley 2001; Akin et al., 2016; Mili & Abid, 2017). To reduce these risks, this study suggests looking for specific attributes of the clients such as religiosity, product knowledge, education, income, savings, and business experiences. The following sections are casting light on the importance of these attributes.

2.4. Importance of Religiosity

Religiosity teaches us ethical behaviour, cultural values while motivating us to do entrepreneurial exercise (Woodside et al., 2020). Nonetheless, faith and religion encourage entrepreneurs to be hopeful, courageous, and patient when they are in a turbulent time (Daou et al., 2019). According to Muslims' faith, Islam is *Ad-Din*[6], a complete and comprehensive guideline for leading a harmonious life here, on the Earth and hereafter (El-Gamal, 2006, Hmoud Al-Lahem & Ridha-Murad, 1995). Muslims generally obey Shariah rules in their day to day lives, though the extent of their rule abidingness depends on the adherence to religiosity (Adhikari & Agrawal, 2016). Moreover, pietism enormously influences Muslims' decision making (Tepe et al., 2016). Several studies affirmed that religiosity also inspires Muslims to engage with the Islamic financial system (Abou-Youssef et al., 2015; Adhikari & Agrawal 2016; Amaliah et al., 2015; Johan & Putit 2016; Rulindo & Mardhatillah 2011; Tepe et al., 2016). Because the principles of Islam promote fairness in financial transactions and thus, decrease idiosyncratic risks and volatility of the investment (Adhikari & Agrawal, 2016; Amaliah et al., 2015; Amin, 2010; Johan & Putit, 2016). Islam also plays a significant role in bettering Muslims' entrepreneurial behaviours by offering a unique set of codes of behavioural conduct. Hence, practising Muslims are firm in keeping the commitment while being more inclined to risk-taking but less likely to seek worldly pleasure and sensual gratification. These positive attributes of pectising Muslims might lead them to generate higher profit in business

[6] Islam *Ad-Din* means Islamic rules and principles can guide every aspect of human life on Earth and hereafter.

(Gursoy et al., 2017). Besides, Islam highly encourages conducting business activities, and it provides guidelines for financial transaction, business management, and partnership agreements (Rulindo & Mardhatillah, 2011). Therefore, religious clients would be safer and more reliable in business dealings and financial transactions (Chen et al., 2016). In light of the above discussion, *mudarabah* and *musharakah*-based investments seem appropriate for religious Muslim entrepreneurs. Clients' religiosity will effectively reduce idiosyncratic risks, moral hazards, and agency problems. As a result, these investments may remain safe while yielding better returns. However, this parameter would be measured in many ways such as. For instance, some latent variables such as *akhlak*, belief, commitment, influence, intellect, practice, and experience can be measured based on the appropriate observable variables (Dali et al., 2019).

2.5. Importance of Knowledge and Education

Clients' knowledge of financial products positively influences their decision to be involved with the financing institution (Chen et al., 2017). Better product knowledge positively impacts entrepreneurial practices as well (Clark et al., 2014). Because a savvy client knows how to utilise a particular financial product better. Therefore, M&M would be well accepted by the people who have enough knowledge of these products. Besides, clients who know how to utilise these capitals can gain better earnings from the investment.

Similarly, education positively influences clients' performance with the microfinance schemes (Atmadja et al., 2016). Because educated people generally have better numerical knowledge, and they can do good bookkeeping and cost-value-profit analyses. They presumably outdo the uneducated ones in terms of collecting market information and linking with the social network. So, educated people seem to be able to generate better income from the investment.

2.6. Importance of Income, Savings

The income and savings influence clients' borrowing behaviour (Rokhim et al., 2016). If microentrepreneurs can generate better income from their loan-based projects, assumingly, they can ensure higher savings and reinvest it in their businesses (Chowa et al., 2012; Nasrin et al., 2017).

Besides, savings can enable *mudarib* to be involved with the *musharakah* project after completing a cycle of *mudarabah* investment. Further, savings increases purchasing power and thus, can lead clients to be engaged with *musharakah mutanaqisah* if s/he intends to own assets.

2.7. Importance of Business Experience

Business experience works as a catalyst in borrowing money from financial institutions for investment purposes. Experienced people are more interested in taking the loan for capitalizing on their businesses (Levie & Autio, 2013). This attribute positively impacts their loan-related activities as well. Experienced clients can generate better income from the loan-based business and make repayment duly (Addo & Twum, 2013). Hence, it can be assumed that clients with business experiences would also better perform in MM&M financing schemes.

To conclude, the MM&M financing system looks at sustainable livelihoods from the Shariah aspect. This approach tends to improve livelihoods by ensuring economic, personal, social, and spiritual wellbeing. Besides, profit and loss sharing (PLS) businesses are socially responsible, ethically justified, and mutually conducted. Therefore, MM&M financing can be effective and efficient to alleviate poverty sustainably. MM&M microfinancing can be regarded as the sustainable livelihood approach to poverty alleviation. Hence, client selection can be strategized based on clients' religiosity, product knowledge, education, income, savings, and business experience need to be considered.

3. Methods

We combined critical realism (CR) and qualitative method to achieve our objectives. We utilised the CR approach to interpreting the ontological and epistemological values of *mudarabah, musharakah* and *musharakah mutanaqisah* (MM&M) instruments (Rees & Smith, 2017). The positivist approach of CR helped explain the implication of MM&M-based equity-financing (McGhee & Grant, 2017). From the theoretical point of view, MM&M deem befitting as micro-equity instruments to address poor entrepreneurs. To justify this ontological claim, in mid of 2018, we carried out a qualitative study interviewing three Islamic finance experts[7] of two academic scholars and one Islamic finance and banking expert. We

[7] In this case, the sample size three (3) is considered sufficient (Daniel, 2012; Rapley, 2014).

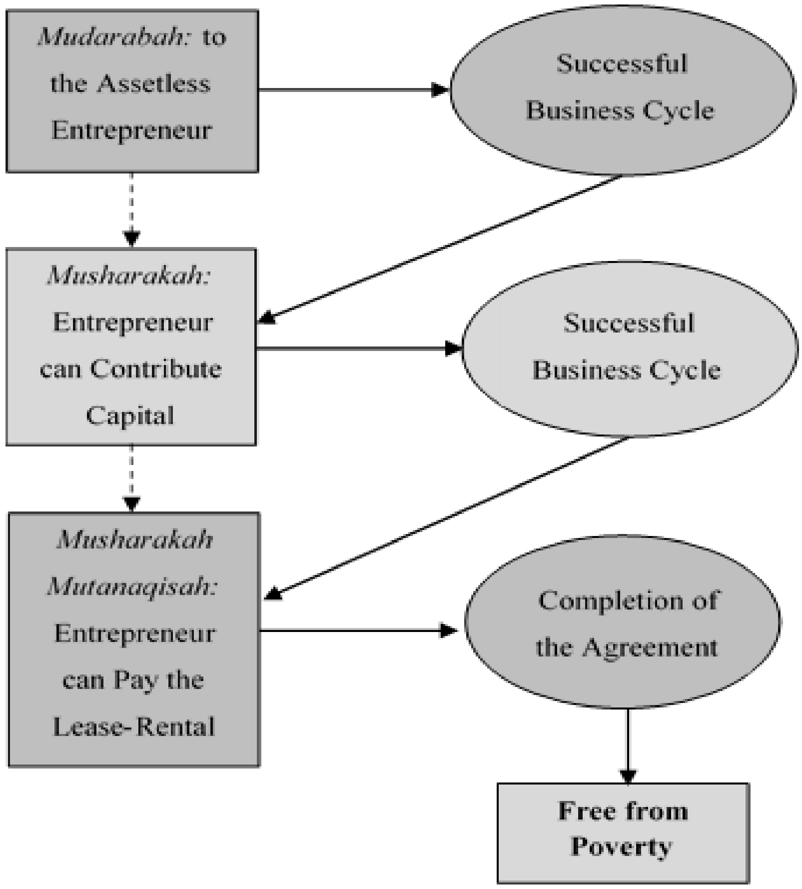
deliberately chose them based on their academic excellence, experiences, and distinguishing expertise (Anderson, 2010). To take a one-on-one interview, we instrumentalised an open-ended semi-structured questionnaire comprising some critical issues of MM&M microfinancing. Respondents opined on the client-recruitment process that includes religiosity, knowledge, and entrepreneurial skills. Besides, we looked for their assumption on the possible influence of Shariah rules on clients' entrepreneurial exercise. We sought their opinions on the importance of clients' academic education, income, savings, and business experiences to be eligible for MM&M financing. At last, we requested their suggestions for managing the possible risks in these financing approaches. Every interview session lasted about 30-35 minutes and was recorded with a digital voice recording device. To interpret the interviews, we transcribed the data and then adopted the multiple case studies method. We reported the findings by using thematic coding and classification techniques (Mills, 2010; Stake, 2013). Notably, all respondents gave us verbal and written consent to publish their opinions.

4. Findings

4.1. MM&M Microfinance: A Conceptual Model

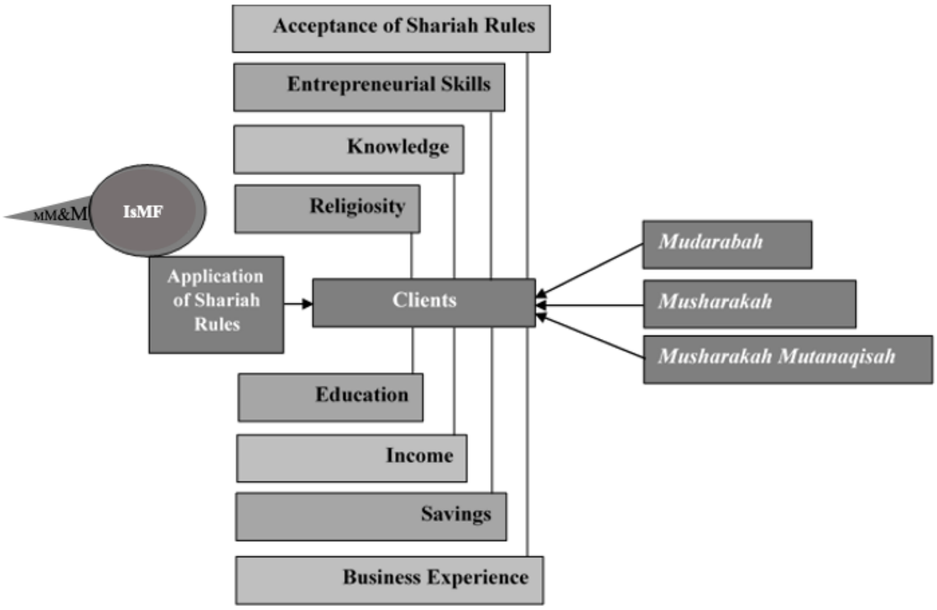
From the theoretical standpoint, *mudarabah, musharakah and musharakah mutanaqisah* (MM&M) can be offered as micro-equity products to poor entrepreneurs. In terms of providing *mudarabah* scheme the financing institution (*rab-al-mal*) needs to investigate clients' (*mudarib*) business skills and Shariah-compliant business proposals. After completing this contract, clients would be eligible for the *musharakah* scheme by contributing a share in the business capital. In the meantime, the microfinance institution would offer them the opportunity of acquiring tangible assets through diminishing *musharakah* (*musharakah mutanaqisah*) financing. The asset ownership would strengthen them to stand against economic shocks and vulnerabilities if they ever encounter them. Thus, this group of people would get rid of poverty sustainably.

Figure 3: Poverty Alleviation through MM&M Financing (by authors)



From the institutional perspective, a client of MM&M financing needs to be recruited based on some specific criteria. By synthesising the existing theories and empirical studies, we have conceptualised that a *mudarib* can be chosen based on four main attributes: religiosity, knowledge of MM&M, entrepreneurial skills, and the acceptance of Shariah rules. In the same vein, some other parameters such as education, income, savings, and business experience need to be considered. In this light, a comprehensive model is delineated below:

Figure 4: Financing Process (by authors)



4.2. MM&M Model as an SL Approach

The profit and risk-sharing principles distinguishably characterise Islamic finance, and *mudarabah* and *musharakah* (M&M) practices manifest the central tenets of this financing system. The MM&M investment can ensure greater benefits to the Islamic microfinance institutes and the clients in the long run. The integrated financing model (**Error! Reference source not found.**) can presumably assist the entrepreneurial poor to overcome poverty while acquiring tangible assets. Poor entrepreneurs can get access to *mudarabah* financing with no collateral. Afterwards, the success of the venture can lead *mudarib* to *musharakah* partnership. Once *mudarib* is involved with the *musharakah* contract as a partner, s/he will be proven capable of managing the business masterfully. The share of clients' investment in *musharakah* scheme will complement the collateral too. Therefore, shifting from *mudarabah* to *musharakah* contract will make the investment more secure and stable. Besides, people with high entrepreneurial qualities can handle riskier businesses, which probably yields a higher profit margin. As a result, the profit share of MM&M could be higher than the amount of predefined interest. Therefore, IsMFIs would gain higher financial benefits than interest-based conventional MFIs.

4.3. Experts' Opinions for MM&M Model Justification

To validate and justify our conceptual model (Figure. 4), we took one-on-one in-depth interviews of three Islamic finance experts (their brief biographies are available in Appendix 1., Appendix 2., and Appendix 3) by adopting the qualitative method. Five (5) themes were combined to make a comprehensive discussion. Theme (1): MM&M based micro-equity financing; Theme (2): selection criteria based on religiosity, knowledge and entrepreneurial skills; Theme (3): selection criteria based on education, income, savings, and business experience; Theme (4): influences of Shariah principles on business, and Theme (5): suggestion for the risk management. The comments of the experts are graphically presented below by using specific thematic codes [See Figure (5); Figure (6) and Figure (7)].

Figure 5: Thematic Codes (Academic Scholar One)

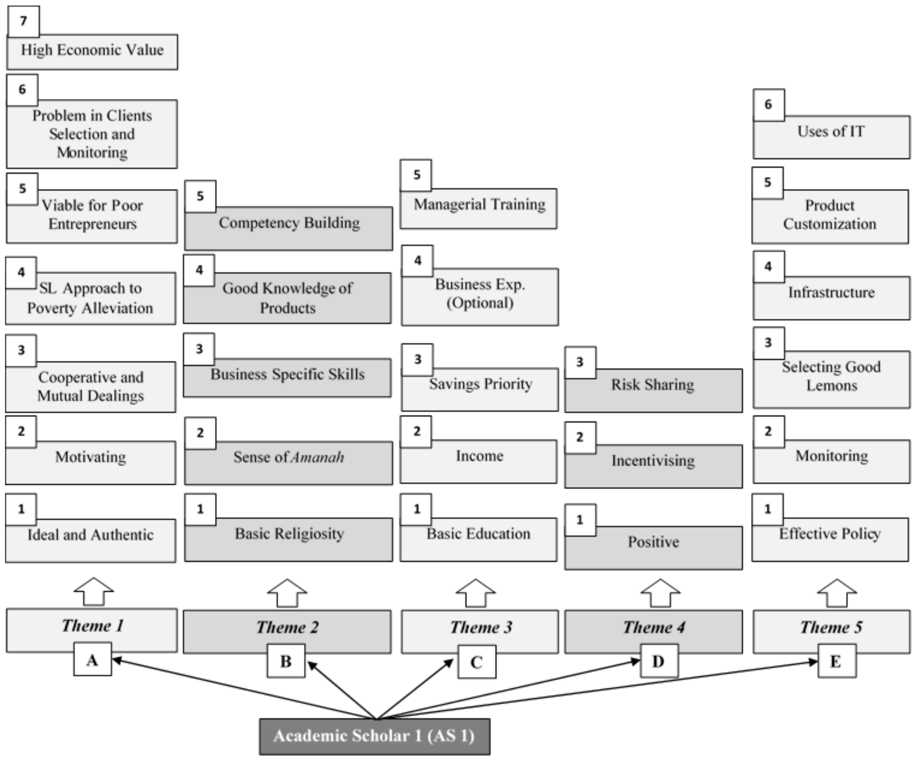


Figure 6: Thematic Codes (Academic Scholar Two)

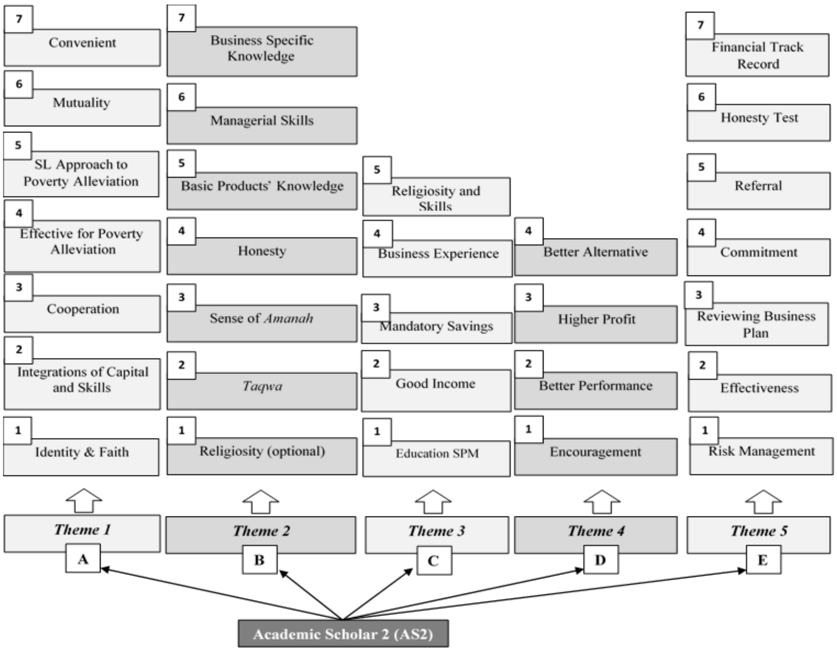
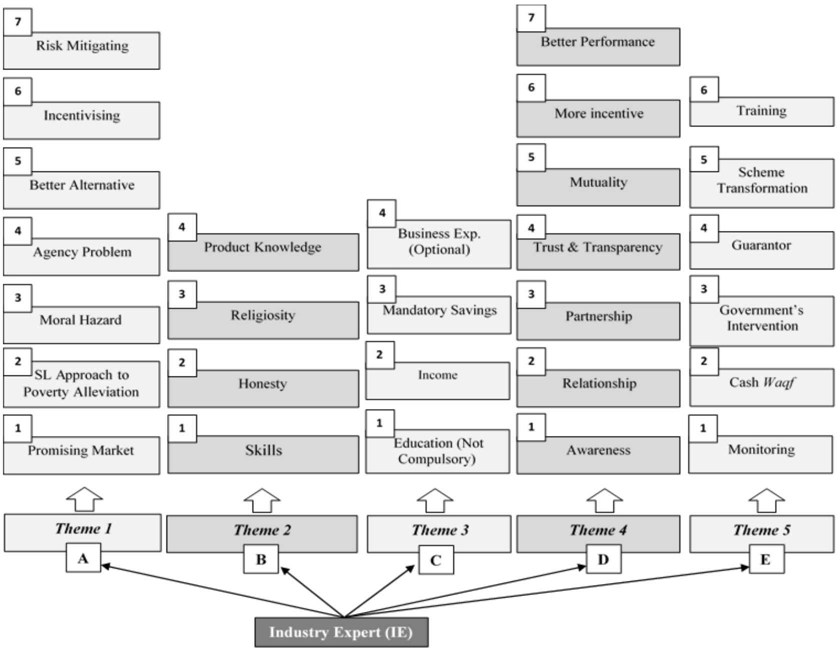


Figure 7: Thematic Codes (Industry Expert)



5. Results and Discussion

5.1. Theme (1): MM&M Based Micro-Equity Financing

The first academic scholar (**Error! Reference source not found.**: AS1. $A_{1,\ 2,\ 3,\ 4,\ 5,\ 6\ \&\ 7}$) defined *mudarabah, musharakah* and *musharakah mutanaqisah*-based micro-equity financing as an ideal system for poverty alleviation. This profit and loss sharing (PLS) financing mainly functions with cooperation and collaboration between the financer and clients. The incorporation of *musharakah mutanaqisah* in microfinancing can be regarded as the sustainable livelihood approach to poverty alleviation. Because this instrument offers the ownership of tangible assets to poor people. This opportunity as a motivating driver can enhance clients' economic performances. MM&M as micro-equity instruments can stimulate microenterprises and thus, positively impact the economy. Some challenges might appear in the case of identifying the appropriate clients and monitoring them during business operations.

According to the second academic scholar (**Error! Reference source not found.**: AS2. $A_{1,\ 2,\ 3,\ 4,\ 5\ \&\ 6}$), this financing model can manifest Muslims' identity and faith well. By using these instruments, it would be easier to integrate the capital of one party and the skills of another. Both parties would be cooperative in these partnership businesses because of having bilateral interests. He affirmatively opined that the application of *musharakah mutanaqisah* could be a way forward to poverty alleviation in a sustainable manner. The practice of this financing can reinforce mutuality in the socio-economic paradigm. But moral hazard could be a potential threat to this financing mechanism.

According to the industry expert (**Error! Reference source not found.**: IE. $A_{1,\ 2,\ 3,\ 4,\ 5,\ 6\ \&\ 7}$), this model is easy to implement in the promising and ready marketplace. Many Muslims, specifically, who are currently involved with Islamic commercial banks, are familiar with *mudarabah, musharakah* and *musharakah mutanaqisah* instruments. Besides, the sustainable livelihood approach can be exercised through *musharakah mutanaqisah* instrument. The ownership of tangible assets/ fixed properties will strengthen poor people to stand against vulnerabilities and economic shocks while improving their financial status. This model could be a better alternative to conventional microfinancing. It can provide a higher incentive to the poor. But there are possibilities of moral hazard and agency problems.

It is worth mentioning, according to the Shariah law, in the *Mudarabah* financing *rab-al-mal* is not authorised to participate in the business management and take legal actions against *mudarib* even if the business yields any loss (Bacha, 1997; Khan, 2008). Therefore, reluctant or demoralised *mudarib* may take advantage of these rules. Besides, there are possibilities of adverse borrower selection, moral hazard, and the exposition of the discretionary power of entrepreneurs in both types of financing (Khalil et al., 2000; and Khan and Ahmed, 2001). With the view to grasping a higher profit margin than the agreed ratio, immoral entrepreneurs may hide business-related information while concealing the actual amount of profit. In the same way, agency problems might appear due to entrepreneurs' (*mudarib*) overconsumption, under-reporting profit, and shirking risks (Khalil et al., 2000). Intrapreneurs might provide imperfect and asymmetric information that would also cause *ex-ante* and *ex-post* hazards. Consequently, the financer would get less than the investment's expected profit (Iqbal and LIewellyn, 2002).

5.2. Theme (2): Knowledge, Religiosity, and Entrepreneurship

The thematic codes presented in Figure (5), Figure (6), and Figure (7) point out that all three experts unanimously agreed with the proposed client-selection methods that include knowledge, religiosity, and entrepreneurial skills (AS1. $B_{1, 3 \& 4}$; AS2. $B_{1, 5 \& 6}$; & IE. $B_{1, 3 \& 4}$). But they stressed clients' skills and honesty (AS1. B_3 & B_5; AS2. $B_{4 \& 6}$; & IE. B_1). In addition, one academic scholar prioritised their sense of *Amanah* (AS1. B_2) and another scholar shed light on *Taqwa* along with *Amanah* (AS2. $B_{2 \& 3}$). All experts neither totally denied nor fully accepted religiosity as the sole criterion of honesty. They emphasised the necessity of having skills and knowledge. They also suggested that microfinance institutions should conduct certain programmes to improve the skills and knowledge of the clients.

5.3. Theme (3): Education, Income, Savings, and Business Experience

Experts were univocal [according to the thematic codes depicted in Figure (5), Figure (6), and Figure (7)] to the importance of clients' education, income, savings, and business experience (AS1. $C_{1, 2, 3 \& 4}$; AS2. $C_{1, 2, 3 \& 4}$; & IE. $C_{1, 2, 3, \& 4}$). Notably, one academic scholar opined that business experiences should be taken as an optional criterion (AS1. C_4) since entrepreneurial skills can be developed by providing training (AS1. C_5). Another scholar modestly prioritised the importance of institutional (formal) education (AS2.C_1). He opined that poor people might not get enough privilege to get access to higher education. But a minimum qualification, which is sufficient for bookkeeping and managing business-related accounting, should be accepted. He also suggested for keeping a balance between religiosity and skills (AS2.C_5). In the same vein, the industry expert opined that education and business experience could be regarded as optional factors (IE. $C_{1 \& 4}$). He assumed that people might have good entrepreneurial qualities even without having higher education and experience.

In brief, all respondents agreed, education, income, savings, and business experiences are the essential parameters to recruit clients for M&M financing. But none of these attributes should be expected at the optimum level. They stretched on 'savings' so that clients can switch from *mudarabah* to *musharakah* scheme. From the organisational point of view, this transformation can lower the risk in MM&M financing. Besides, clients might get a higher share of the profit by contributing capital to the business (in *musharakah* agreement). Savings can help clients to be involved with *musharakah mutanaqisah*. And thus, they will get the opportunity to own assets.

5.4. Theme (4): Impact of Shariah Principles on Entrepreneurship

All the respondents asserted [according to the thematic codes as portrayed in Figure (5), Figure (6), and Figure (7)] that Shariah principles would positively impact clients' enterprising exercise. In this regard, one academic scholar pointed out two specific reasons: incentive offering and risk-sharing. Shariah principles seemingly offer a higher incentive for the poor *mudarib* while sharing the business risk (AS1. $D_{2 \& 3}$). In the same vein, another scholar underscored three causes: encouragement by loss sharing, offering higher profit margin, and being the better alternative in terms of sharing capital, managerial skills, and risks (AS2. $D_{2, 3, \& 4}$). Above all, PLS principles encourage entrepreneurs to pursue or rejuvenate business by offering risk sharing. For these reasons, *mudarib* dares to take the riskier venture to gain higher profit. However, the industry expert delivered different insights. He pointed out various features of Shariah principles such as incentives, trust and relationship-based business agreement, partnership, mutuality, transparency, and performance orientation (IE. $D_{1, 2, 3, 4, 5, 6, \& 7}$). These attributes should have positive impacts on the business. Based on the above discussion, it can be concluded that Shariah principles of MM&M financing will positively impact clients' enterprising exercises that must yield better outcomes. Therefore, the poor entrepreneur will presumably, accept the underlying Shariah rules of these financing instruments.

5.5. Theme (5): Suggestions

At the end of each interview session, respondents were asked for suggestions for implementing MM&M-based microfinancing. One academic scholar suggested (**Error! Reference source not found.**) that efficient policies need to be formulated for a sound financing mechanism and effective monitoring system. This respondent also stressed the proper client selection, robust organizational infrastructure, product customization (needful amount of capital for each business), usages of information technology, and government intervention (AS1. $E_{1, 2, 3, 4, 5, 6, \& 7}$). In this regard, another academic scholar (**Error! Reference source not found.**) gave importance to risk management and operational effectiveness. He also emphasized the thorough review of business proposals that clients will produce reliable referrals to nominate the appropriate clients and the sound examining process of clients' honesty (AS2. $E_{1, 2, 3, 4, 5, \& 6}$). The industry expert (**Error! Reference source not found.**) stressed the effective way of monitoring, integrating cash *waqf* to mitigate financial risk, government's involvement in reducing the administrative cost as well as the cost of capital, third-party guarantor to resolve clients' risk, the proper process of scheme transformation (switching one from *mudarabah* to *musharakah*), and providing entrepreneurial training to enhance clients' skills and knowledge (IE. $E_{1, 2, 3, 4, 5, \& 6}$).

6. Conclusion

In light of the above discussion, it can be concluded that from the ontological point of view, MM&M based microfinancing can be regarded as a sustainable livelihood approach to poverty. The experts were univocal about the implications of these instruments for poverty alleviation. They unwaveringly supported the attachment of *musharakah mutanaqisah* as an effective tool for the sustainable livelihood approach to poverty reduction. This instrument was univocally accentuated as efficient for availing ownerships of tangible assets to poor entrepreneurs. They defined religiosity, knowledge, and entrepreneurship as the essential parameters for client selection. They also added clients' honesty could be measured by other criteria rather than religiosity. In this case, proper referrals, long-term observation (when clients are involved with other financial schemes), reviewing their previous financial transactions etc. can be considered. They stressed more on training programmes to enhance clients' entrepreneurial skills. Besides, clients should have formal literary, income, savings habits, and business experiences. However, these attributes seem to be less necessary conditions. Every respondent opened that Shariah principles should have a positive impact on the entrepreneurial exercise. They further added that if clients are taught the core meaning and purposes of Shariah principles, they (clients) will accept the rules of MM&M financing more spontaneously. Proper policy formulation, infrastructure building, client selection process, government intervention, installation of information technology and good management can help build a robust organisational infrastructure.

Similarly, referral, honesty-test, and close monitoring can effectively regulate clients' activities. Some other factors such as education, income, savings, and business experiences of the clients can be taken into account. Effective policy formulation for risk-leveraging and risk-mitigating is crucial. In this regard, involving the third-party guarantor, incorporation of *cash-waqf*, and the use of information technology can ensure organisational sustainability. Thus, MM&M financing can be extended to poor Muslim entrepreneurs to bring them out of poverty in a sustainable manner.

6.1. Limitations

This study has certain limitations. It was confined to three equity instruments namely, *mudarabah*, *musharakah* and *musharakah mutanaqisah*. We intentionally avoided *muzarah* (one kind of *mudarabah*) and *mushakah* (one type of *musharakah*) those are applicable to agrarians. Besides, our model does not adopt *shirkat-ul-a'mal and shirkat-ul-wujooh.* Notably, in the *shirkat-ul-a'mal* agreement, all partners render services to earn fees. Under the *shirkat-ul-wujooh* agreement, partners purchase the commodities at a deferred price and sell them on the spot. We vetted our proposed model by the selected experts. Hence, experts' opinions were somehow limited to a certain extent. They might not exercise unbound liberty to opine on other peripheral issues. Besides, this financing model might encounter numerous risks in practice. We might overpass the potential risk factors. Therefore, further research is needed to scrutinise the issues unaddressed by this study.

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Islamic Attributes as Driving and Attracting Motivation to Maintain Tourists Loyalty at Indonesia Hospitality Tourism

Susminingsih[1], Imam Kanafi[2], Achmad Sani Supriyanto[3], Fatimah Kari[4], Mohammad Khalilur Rahman[5], Ahmad Rosyid[6], and Ina Mutmainah[7]

ABSTRACT

Religion tourism has a significant contribution to Indonesia's national economic development. culture, religion, and economics are covered in the global hospitality business tourism. This research aims to examine the influence of driving motivation, attracting motivations, motivations of Islamic attributes to the loyalty of visits through the satisfaction of visiting, from tourists who come to Indonesia. This article used an empirical study based on research during the COVID 19 pandemic happened. The data research was collected by 298 foreign and national tourists using purposive sampling techniques. The data is analyzed using Path analysis with SPSS software. The motivation of Islamic attributes indirectly affects the loyalty of visits (through the satisfaction of visiting) to tourists before they decide. The results highlight the importance of Islamic attributes related to Indonesia tourism, that contributes several contributions: 1) as a theoretical contribution, religion still takes place in everyone decisions, 2)

[1] Dr., Department of Sharia Economics, Faculty of Islamic Economics and Business, IAIN Pekalongan, Indonesia, E-mail: susminingsih@iainpekalongan.ac.id (corresponding author)
[2] Dr., Department of Islamic Sufism and Psychotherapy, Faculty of Ushuluddin, Adab and Dakwah, IAIN Pekalongan, E-mail: imam.kanafi@iainpekalongan.ac.id
[3] Prof. Dr., Department of Management, Faculty of Economics, UIN Malang, Indonesia, E-mail: sani_achmad@manajemen.iun-malang.ac.id
[4] Prof. Dr., Department of Economics, Faculty of Economics and Administration, University of Malaya, Malaysia, E-mail: fatimah_kari@um.edu.my
[5] Dr., Faculty of Entrepreneurship and Business, University Malaysia Kelantan, Malaysia, E-mail: mohdkhalilur@gmail.com
[6] M.Si, Department of Sharia Economics, Faculty of Islamic Economics and Business, IAIN Pekalongan, Indonesia, E-mail: ahmadrosyid@iainpekalongan.ac.id
[7] M.Ak., Department of Sharia Economics, Faculty of Islamic Economics and Business, IAIN Pekalongan, Indonesia,E-mail: ina.mutmainah@iainpekalongan.ac.id

as a tourism industry, there are many efforts to increase tourist satisfaction and loyalty to their visits, 3) as a policy-making contribution, the Indonesian government needs to improve marketing strategies that will ensure satisfaction and encourage tourists to come again.

ملخص

تساهم السياحة الدينية بصورة كبيرة في التنمية الاقتصادية الوطنية في إندونيسيا. ويتم تغطية كل من الثقافة والدين والاقتصاد في السياحة العالمية المبنية على خدمات الضيافة. ويهدف هذا البحث إلى دراسة تأثير الدوافع المحركة، ودوافع الجذب، والدوافع المبنية على أساس الصفات الإسلامية على ولاء الزوار من خلال الرضى على الزيارة من قبل السياح القادمين إلى إندونيسيا. وقد استخدم هذا المقال دراسة تجريبية تستند إلى بحث أجري أثناء جائحة كوفيد-19. وجمعت بيانات البحث من 298 سائحا أجنبيا ومحليا باستخدام تقنيات أخذ العينات الهادفة. ثم خضعت للتحليل باستخدام تحليل المسار بمساعدة برنامج الحزمة الإحصائية للعلوم الاجتماعية (SPSS). وكنتيجة، وجد أن دافع السمات الإسلامية يؤثر بشكل غير مباشر على ولاء الزوار (من خلال الرضى على الزيارة) حتى قبل اتخاذ السياح لقرار السفر.وتسلط النتائج الضوء على أهمية السمات الإسلامية المتعلقة بالسياحة الإندونيسية والتي تساهم بعدة أشكال: 1) مساهمة نظرية، لا يزال الدين عاملا من عوامل اتخاذ القرارات للجميع، 2) صناعة سياحية، هناك العديد من الجهود لزيادة رضا السياح وولائهم، 3) مساهمة في صنع السياسات، تحتاج الحكومة الإندونيسية إلى تحسين استراتيجيات التسويق التي تضمن الرضا وتشجع السائحين على العودة مرة أخرى.

ABSTRAITE

Le tourisme religieux a une contribution significative au développement économique national de l'Indonésie. La culture, la religion et l'économie sont couvertes dans le tourisme d'affaires de l'hôtellerie mondiale. Cette recherche vise à examiner l'influence de la motivation motrice, les motivations d'attraction, les motivations des attributs islamiques à la fidélité des visites par la satisfaction de visite, des touristes qui viennent en Indonésie. Cet article a utilisé une étude empirique basée sur les recherches effectuées lors de la pandémie COVID 19. Les données de recherche ont été collectées auprès de 298 touristes étrangers et nationaux en utilisant des techniques d'échantillonnage intentionnel. Les données sont analysées à l'aide de l'analyse Path avec le logiciel SPSS. La motivation des attributs islamiques affecte indirectement la fidélité des visites (par la satisfaction de la visite) aux touristes avant qu'ils ne se décident. Les résultats soulignent l'importance des attributs islamiques liés au tourisme en Indonésie, qui apportent plusieurs contributions : 1) en tant que contribution théorique, la religion prend encore place dans les décisions de chacun, 2) en tant qu'industrie touristique, de nombreux efforts sont déployés pour accroître la satisfaction des touristes et les fidéliser à leurs visites, 3) en tant que contribution à l'élaboration des politiques, le gouvernement indonésien doit améliorer les stratégies de marketing qui garantiront la satisfaction et encourageront les touristes à revenir.

Keywords: Attracting Motivation, Driving Motivation, Islamic Attributes, Visit Loyalty, Visit Satisfaction

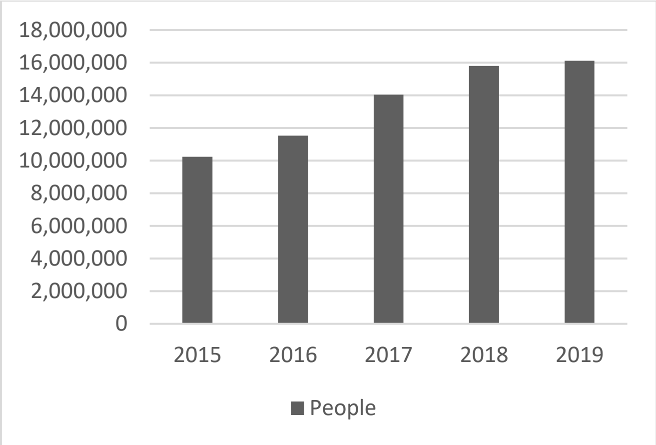
JEL Classification: O1, Z3

1. Introduction

Tourism is a significant foreign exchange source for the global economy (Al-Ansi et al., 2019; Arts, 2020). The tourism industry covering destinations, hospitality, and culinary has become a significant economic activity that associates the meaning of satisfaction for customers of all circles, religions, ethnicities, and socio-economic backgrounds (Williams, 2006). Religion tourism, as a new paradigm in the hospitality industry, is growing as the nation needs in the global era (Boğan & Sarıışık, 2019; Heidari et al., 2018). As an Islamic majority country, Indonesia needs to examine how religion can affect tourism management in hospitality and spirituality (Ghaderi et al., 2020). Hospitality provides an excellent experience to customers in travel, accommodation, food and drink, and general event management (Ghaderi et al., 2020; Helena et al., 2019). The emotional value and quality value that arises in tourism services significantly affect tourist's satisfaction and loyalty, both domestically and internationally (Yang et al., 2014).

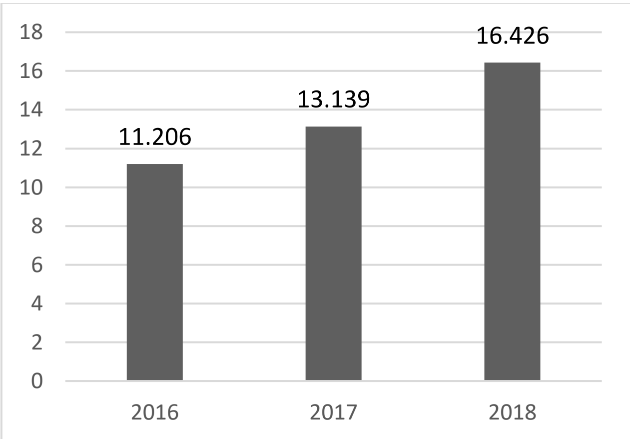
The number of tourist visits to Indonesia continues to increase year on year (Figure 1). The increase in tourist visits is an indicator of the success of the Indonesian government in managing tourism. Managers should encourage the tourism sector to better business competitiveness and more competitive advantages (Chiang & Shyu, 2016). The idea of destinations with exotic scenery and service quality based on religious values strongly influences tourists' decision to visit (Al-Ansi & Han, 2019). Increasing tourist visits significantly impact Indonesia's foreign exchange financial profit, country image, business creativity, community welfare, cultural development, and so on.

Figure 1: Increasing Number of Foreign Tourists to Indonesia 2020 (BPS, 2020)



Tourism contributed significantly to the country's foreign exchange in Indonesia from 2016 to 2018 (Figure 2). Manufacturers get a good market. As owners of hotels, restaurants, and transportation, they have a competitive advantage. Competitiveness in the tourism industry is a popular research topic that is very beneficial for sustainability. Competitiveness in the tourism industry is a popular research topic that is very beneficial for sustainability and business development (Cronjé & du Plessis, 2020). Business development (Cronjé & du Plessis, 2020) tourism contributed significantly to its foreign exchange from 2016 to 2018 in Indonesia.

Figure 2: Total Foreign Exchange Tourism Sector (Billion US$) (BPS, 2020)



The satisfaction that tourism business managers can provide to "sell" aspects of tourism in terms of places, scenery, weather/climate, services, facilities, culinary, etc., has encouraged tourists to visit and "return" to visit tourist destinations. Social and psychological factors such as expression, behavior, needs, and external environments such as natural conditions, weather, culture, and social group interactions determined tourist satisfaction (Bayih & Singh, 2020). The tendency of travelers to find locations that match expectations, motivations, desires, memorable experiences, and of course, financial capabilities is a very profitable business opportunity (Cronjé & du Plessis, 2020). Two dimensions of universally accepted motivation are very related factors of encouragement and attraction, causing tourists motivation to visit a destination (Aziz et al., 2018). This research will contribute to building a unified strategy between religion and the tourism industry. The study aims to fill the gap by testing Islamic attributes with other factors that attract tourists to visit Indonesia.

In this article, researchers report the results of studies conducted during the COVID-19 pandemic in 2020. Several stages were carried out in this study, namely, the first stage is the stage of identification of problems in the field where Islamic attributes and motivations affect the loyalty of tourists in the pandemic period. The second stage is the search for theories as to the basis for determining variables, hypothesis making, and questionnaires. The third stage is the test questionnaire (pre-test) which its validity and reliability. The fourth stage is the dissemination of questionnaires through Google forms sent through WhatsApp and emails to respondents, namely foreign and national travelers using purposive sampling techniques. At this stage, 298 respondents sent back questionnaires. The fifth stage is data analysis using Path analysis techniques with SPSS software. The sixth stage is discussed and confirmed with previous similar studies. The seventh stage is inference. The eighth stage is the preparation of articles, and publications.

2. Literature Review

The development of the tourism industry continues to be driving through service position activities. Managers in the tourism industry determine their marketing management strategy based on a traveler's commitment to visit again and recommend tourism destinations and experiences they receive to other potential visitors (Bayih & Singh, 2020). The experience depends heavily on human relations, tourist perception, hotels, culinary, transportation services, souvenir shops, art performances, and worship facilities (Tomej & Xiang, 2020). Tourism management should consider material and spiritual elements to provide tourists' satisfaction (Heidari et al., 2018). Religiosity moderates the relationship between generic motivation to tourists' preferences through the Satisfaction of Islamic services obtained by tourists (Hassani & Moghavvemi, 2019). Value is a critical factor for developing long-term relationships with local or foreign consumers and gaining a competitive edge for business tourism (Shakoori & Hosseini, 2019).

Update this research by developing Eid & El-Gohary's (2015) research by replacing moderator variables, Islamic religiosity with mediator variables, and the visit's satisfaction. He developed Al-Ansi & Han's (2019) research by adding visit satisfaction as a mediator variable, replacing the analysis test tool using path analysis. Expanded Al-Ansi et al. (2019); Bayih & Singh's (2020); Choi et al. (2016); Cronjé & du Plessis' (2020) researches, by adding motivational attributes of Islam as independent variables. Developed Collins-Kreiner's (2020) research by adding visit loyalty as an independent variable.

2.1 Driving motivation

Tourist has various motivations for visiting destinations. Knowledge of destination choice encourages marketers to predict each destination's objective characteristics on offer (Helena et al., 2019). Managing services for tourists' satisfaction is the main requirement for developing motivation to revisit or recommend specific destinations. Tourists maximize their satisfaction and expectation in making travel decisions by choosing the best alternatives from various aspects such as emotional experience, saturation, stress, vacation, longing, etc. (Helena et al., 2019; Wattanacharoensil & La-ornual, 2019; Yang et al., 2019).

2.2 Attracting Motivation

Tourists decide to go on a tour also influenced by motivations that attract interests such as the beauty of destinations, ritual traditions, hospitality, culinary, shopping, food, promotion on social media, dance, social interaction, transportation, and so on (Barcelos et al., 2019; Choi et al., 2016; Erb, 2013; Hew et al., 2018; Ko & Kim, 2015; Romão et al., 2014). The Socio-cultural, socio-demography, and ethnic diversity of the community is also an attraction for tourists. Tourists have an unforgettable experience of the socio-cultural values of people living in tourist destinations, both local and global (Aziz et al., 2018).

2.3 Islamic attribute motivation

Religion is one of the most common motivations for tourists to travel. A religiously motivated journey, one of the oldest forms of mobility globally, continues to grow (Collins-Kreiner, 2020; Terzidou et al., 2018). Religion and spiritual tourism even occupies the main tourism segment that tourists love in various countries (Heidari et al., 2018; Iliev, 2020). Worship facilities for Muslims and non-Muslims, halal food, and fashion purchases, religious sites become spiritual attributes that affect tourists' spirituality when traveling (Awan et al., 2015; Hassani & Moghavvemi, 2019; Ismanto et al., 2021). Islamic religiosity has a significant effect on tourist satisfaction levels (Ghaderi et al., 2020). Religiosity plays an essential role in the relationship between variable beliefs and the behavior of purchasing goods and services for global Muslim consumers (Eid & El-Gohary, 2015; Mura & Wijesinghe, 2019). Religious sites offer visitors various experiences, including religious services, buildings such as mosques, churches, temples, choir performances, musical performances, and religious ceremonies (Hughes et al., 2013).

2.4 Visiting Satisfaction

The tourists' satisfaction has significant confirmation of the expectation of the quality of service and travel experience. Tourist satisfaction is significantly influenced by the attracting Motivation and the driving Motivation according to the level of the tourist experience and the level of tourist expectation (Helena et al., 2019; Sato et al., 2018). The level of category comparison between expectations and satisfaction should be in the same order to demonstrate tourism management's success in meeting visitors' expectations competitively (Romão et al., 2014). Tourists maximize satisfaction by capturing the potential results of the affordability of actualizing tourism components such as destinations, facilities, services, information, and prices, such as their target interests and expectations (Tomej & Xiang, 2020). Tourism managers must classify and analyze which types of values tourists want from their destinations, such as natural environments, food, art performances, legends, weather, souvenir crafts, ritual traditions, and so on. The entire market can be segmented and selected based on the desired value preference (Yang et al., 2014). Value preferences from individual travelers will result in different destination choices and satisfaction levels than other traveler segments.

2.5 Visiting Loyalty

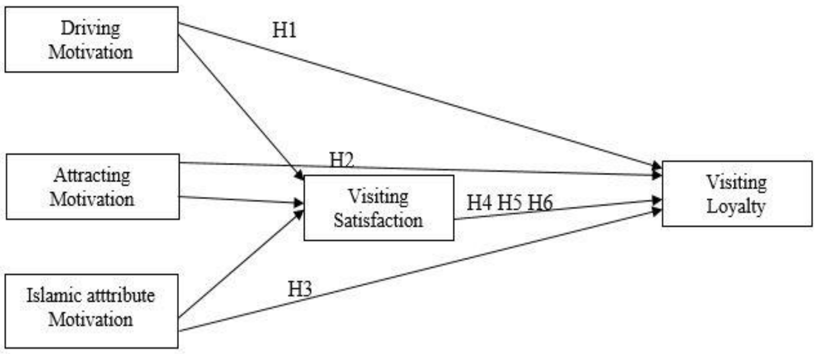
Tourist visits' loyalty is closely related to tourist visits' satisfaction with previous satisfaction experienced by themselves and other tourist experiences. The repurchasing of a consumer's goods and services and providing recommendations to potential consumers next illustrates consumer loyalty in the marketing literature (Yoon & Uysal, 2005). Loyalty is such a complex concept that it is difficult to define expressly. Travelers' faithful behavior towards tourist destinations is analyzed in two categories: recommendations and repurchases (Niemczyk, 2014).

3. Research Model

The tourism literature, driving and attracting motivation, and religious attributes provide a theoretical basis for studying Islamic attributes' motivating factors to visit loyalty through satisfaction. This study examined the effect of towing motivating factors (X1), thrusters (X2), Islamic attributes (X3) on Visit loyalty (Z) through Visit satisfaction (Y). The research framework is illustrated in Figure 3.

To formulate the hypothesis on driving motivation, attracting motivation, and Islamic attribute motivation towards visit loyalty with visit satisfaction as an intervening variable, a research model presented in Figure 3 is required.

Figure 3: Research model



4. Hypothesis development

The three-factor theory is the classification of product and service attributes based on how customers view those attributes and their impact on customer satisfaction (Gregory & Parsa, 2013). According to the International Genealogical Index states, driving motivation is a person's mental state, the fulfillment of needs and desires that can be considered one of the psychological influences of tourists' behavior. The tension of one's mind and inner self from the routine of work, making wanting to refresh and relax by vacationing or visiting tourist attractions (Bayih & Singh, 2020). It can restore physical and spiritual freshness, enjoy time with family, enjoy the uniqueness of cultural rituals and natural beauty (Cronjé & du Plessis, 2020).

The driver's motivation starts with intention; psychology and social circumstances significantly affect the visit's loyalty (Bayih & Singh, 2020). Thus, a person's psychological condition when experiencing stress and boredom requires physical and spiritual freshness through vacation. Tourist destinations are offered if tourists and tourists feel happy, do not pray, and do not pray. Then, tourists will be loyal and visit again or recommend to friends and relatives.

H1: Driving motivation affecting Visit Loyalty

Prospect Theory identifies consumer behavior through various aspects of decisions (Kahneman et al., 2009). This theory describes individuals' decision-making processes in risky conditions based on different values of profit and loss influenced by perceived potential value rather than the final result. Travelers consider the availability of attributes at their destination. These attributes usually refer to common attributes such as safe tourist attractions, the availability of complete facilities such public transportation, hotels, travel agencies, places of worship, culinary specialties, historical sites, beautiful nature, and hospitality of local people.

The destination can influence the satisfaction of tourists (Boit & Doh, 2014). Destination venues should consider common attributes accompanied by accommodation, food, festivals, convenience, and travel package prices (Ragavan et al., 2014). Mussalam dan Tajeddini (2016) divides the driving into four categories: the brand reputation of the destination, the attraction of tourism, tourism infrastructure, and tourism services (Mussalam & Tajeddini, 2016). Tourists are happy with the destination visited, so they want to visit again and recommend the destination.

H2: Attracting Motivations are affecting Visit Loyalty

Islam and tourism are based on the Qur'an 29:20, which encourage people to travel on earth to take lessons from God's creation and take His mercy. Islamic Tourism is defined as a tourist trip intended to provide tourism services and facilities for Muslim tourists following Islamic rules (Al-Ansi & Han, 2019). According to Battour et al. (2010) that the motivation of Islamic attributes consists of physical and non-physical aspects; physical aspects include the availability of worship facilities (mosques/mosques, Qur'an and qibla, Muslim-friendly toilets) and halal food. At the same time, non-physical attributes include Islamic entertainment, Islamic sharia-compliant clothing, adherence to Islamic morality, and the presence of adhan's voice (Battour et al., 2010). Eid & El-Gohary (2015) suggested that non-physical attributes of the availability of separate services according to gender, the presence of entertainment, sharia arts. Fajriyati's et al. (2020) research states that there are four dimensions of Islamic attributes in halal tourism destinations: worship facilities, halal food, alcohol and gambling, and Islamic morality. The more Islamic attributes are available in tourist attractions, Muslim tourists are easy to carry out worship, feel safer, and believe because the procedures carried out in tourist attractions according to Islamic Sharia to increase tourists' loyalty are expected to visit again.

H3: Islamic Attributes Motivations are affecting Visit Loyalty

Prospect Theory identifies consumer behavior through various aspects of decisions (Kahneman et al., 2009). This theory describes individuals' decision-making processes in risky conditions based on different values of profit and loss influenced by perceived potential value rather than the final result. The results of Al-Ansi & Han's (2019) research state that motivation is driving: a person's intentions, psychological condition, and social circumstances have a significant effect on visit satisfaction and visit loyalty. The uniqueness of cultural rituals, natural conditions, and the number of beautiful destinations in a city can increase tourists' desire to visit again because tourists feel satisfaction and feel happy when visiting, so recommend the destination to the broader community (Collins-Kreiner, 2020). Barcelos et al. (2019) suggest that tourists who feel satisfaction after visiting a destination will recommend and promote the place through social media.

H4: Driving motivation is indirectly affecting Visit Loyalty through Visit Satisfaction

Kahneman et al. (2009) found that the state on the individual so that alternative good name decisions is not always consistent and rational. The purpose of the Prospect Theory is to make decisions if there is uncertainty at the time of choice. Fajriyati's et al. (2020) research proposes that complete tourist destination facilities and good service make tourists comfortable and happy so that the driver's motivation affects the visit's satisfaction. Collins-Kreiner (2020) states that tourists are interested in visiting tourist destinations based on the completeness of the facilities and the hospitality of the local community, the environmental security of tourist destinations, social conditions, and cultural arts. All of them will become tourists' attractions to keep visiting again because vacationing and learning about the local culture. The competitiveness of tourism is an essential aspect in considering the development of a destination, with one of the efforts is the promotion in a relentless way (Cronjé & du Plessis, 2020).

H5: Attracting motivation is indirectly affecting Visit Loyalty through Visit Satisfaction

Hertzberg et al. in Fajriyati et al., (2020) suggested that Three-Factor Theory was a development of the Two Factor Theory that was first formulated in the context of employee satisfaction. The two-factor theory identifies that employees will only be motivated to do their job to the fullest if they are satisfied with their work. Employee satisfaction level will depend on two factors, namely hygiene factors (motivators) (Smith & Deppa, 2009). Kano, et al. in Rotar & Kozar (2017) states that the Kano model is known as a three-factor customer satisfaction theory. It generally classifies product and service attributes based on how customers view attributes and their impact on customer satisfaction.

The motivation of Islamic attributes with the availability of worship facilities (Battour et al., 2010). According to Collins-Kreiner's (2020) research, not only a facility of worship that affects a person's religion, with morality according to Islamic sharia, the entertainment of Islami, the sound of azan diligent sounded, modesty in a dress can give a happy feeling for Muslim tourists. Four dimensions of Islamic attributes in halal tourism destinations are worship facilities, halal food, alcohol and gambling-free, and Islamic morality (Fajriyati et al., 2020). The more Islamic attributes make Muslim tourists are easy to carry out worship and feel safer. The procedures are carried out in tourist attractions following Islamic sharia so that when on holiday with sufficient time, tourists' satisfaction will increase and then increase tourists' loyalty, visit again, and recommend to the public through social media.

H6: Islamic Attribute motivation is indirectly affecting Visit Loyalty (through Visit Satisfaction)

5. Research Methodology

The study used quantitative methods. This research uses survey techniques by distributing questionnaires to respondents, namely tourists visiting Bali and Yogyakarta's tourist destinations. Bali and Yogyakarta are famous destinations for Indonesian tourism. This research refers to the research framework Patwardhan's et al. (2020) research. This research builds a research model to investigate the motivations of tourists visiting Indonesia until deciding to repeat the visit and give recommendations to others. Each factor will be analyzed to find which factors most affect travelers' motivation and vice versa. The illustrated research model is in Figure 3.

The participants selected are tourists who have visited tourist destinations in Bali and Yogyakarta. The COVID 19 pandemic caused the number of tourists to decrease due to the travel ban and the closure of some destinations. The number of tourists visiting is uncertain, so determining the number of samples to be used in this study uses the following Rao formula:

$$n = \frac{z^2}{4\,(moe)^2}$$

$$n = \frac{1{,}96^2}{4\,(0{,}1)^2}$$

$$n = 96{,}04$$

Description;

n = number of sample

Z = confidence interval required in the research at a = 5%, Z = 1,96

moe = margin of error (maximum tolerated error of 10%)

Based on the Rao formula, a sample of 96 people was chosen from the population. The study used purposive sampling techniques. The sample that responded to the study numbered 298 respondents spread in Bali and Yogyakarta. The questionnaires that the respondents had filled out were analyzed all to get more accurate results.

Table 1: Participant Profile

Variable	N (Total Respondent) = 298	Percentage
Sex		
Male	**177**	**59.39**
Female	**121**	**40.60**
Age		
16-30 Years old	**154**	**51.67**
31-45 Years old	**74**	**24.83**
>45 Years old	**70**	**23.48**
Education Level		
Elementary School	**5**	**1.77**
Junior High School	**22**	**7.80**
High School	**124**	**43.97**
Freshgraduate	**109**	**38.65**
Postgraduate/doctoral	**22**	**7.80**
Job		
Student	**95**	**32.42**
Private Employee	**75**	**25.59**
Civil Employee	**52**	**17.74**
Entrepreneur	**52**	**17.74**

Variable	N (Total Respondent) = 298	Percentage
Housewife	**12**	**4.09**
Army	**6**	**2.04**
Other	**1**	**0.03**
Mean of expenditure		
< Rp 1,000,000	**95**	**32.09**
Rp 1,000,000 – Rp 2,400,000	**82**	**27.70**
Rp 2,400.000 – Rp 5,000,000	**66**	**22.29**
>Rp 5,000,000	**53**	**17.90**
Nationality		
Indonesia	**250**	**83.8**
Amerika	**6**	**2.01**
Netherlands	**9**	**3.02**
Austria	**3**	**1**
Australia	**9**	**3.02**
India	**2**	**0.67**
Perancis	**3**	**1**
Spanyol	**2**	**0.67**
Japan	**1**	**0.33**
Malaysia	**1**	**0.33**
Thailand	**10**	**3.35**
Italia	**1**	**0.33**
Germany	1	0.33

This research used questionnaire surveys as instruments. Questionnaires were collected to get information from respondents per question item according to the issues studied, where questionnaires were created in the google form. Respondents received the google forms abroad via email and WhatsApp. This online way took because researchers experience physical distancing until the area closure or tourism place during the pandemic period. The literature studies were used to obtain secondary data.

This study adopts several variables, the influence of attracting motivation such as saturation, desire to gather, relax (Hew et al., 2018); driving motivations such as destination beauty, traditional rituals, hospitality, culinary, shopping (Choi et al., 2016); motivation of Islamic attributes such as prayer facilities, halal food, halal fashion (Battour et al., 2010); loyalty such as the desire to visit again and recommend destinations to relationships (Niemczyk, 2014; Pinkus et al., 2016); the satisfaction of visiting such as the suitability of the service with expectations (Yang et al., 2014).

6. Results and analysis of the study

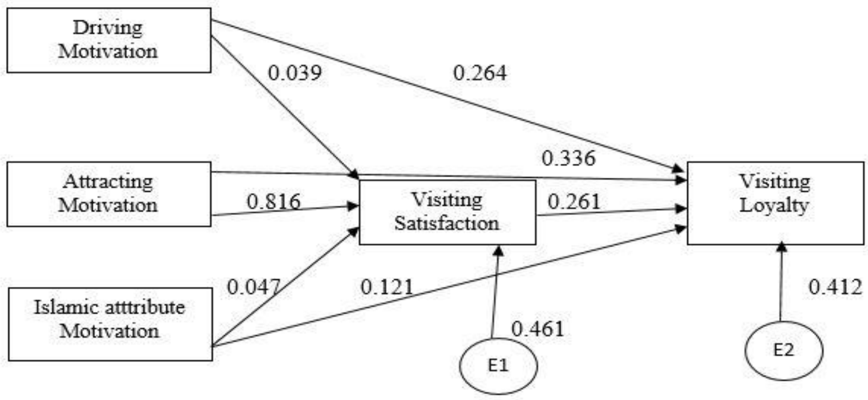
Based on the ANOVA or F test, the result is 361,248 which is significantly at the level of 0.000 < (α) = 0.05, so it can be said that the motivation of Islamic attributes encourages motivation, and motivation attracts significantly affects visit satisfaction (see Table 3). This test verifies that three motivating factors are acceptable for analyzing satisfaction.

The regression analysis results explain that independent variables that are motivational encouraging, interesting motivations have no significant effect on visiting satisfaction, at levels 0.473 and 0.249, respectively. Attractive motivation significantly affects visiting satisfaction at 0.000 or < 5% used in this analysis (see Table 4). Examples of attracting motivations include tourists' motivations (refresh, enjoy the unique culture of Yogyakarta, and Bali people, convenient transportation, a variety of interesting travel packages, various and complete destinations, such as nature, culinary, shopping, cultural destinations).

Based on ANOVA test or F test with results at 357,599 with a level of 0.000 (< (α) = 0.05). It can be said that the satisfaction of visiting, the motivation of Islamic attributes, motivation encourages, motivation attracts significantly affects the loyalty of the visit (see Table 5). Although all items are related to travel preferences, some things focus more on the Islamic dimension; Islamic services, Islamic products, and hedonistic behavior avoidance preferences (pornography, gambling, and nightlife).

Based on the ANOVA or F test with results at 357,599 with a rate of 0.000 (< (α) = 0.05), the visiting satisfaction, motivation of Islamic attributes, motivation spurring, attractive motivation significantly affect visit loyalty (see Table 6). The regression analysis results can be explained that motivation encourages, motivational attractive, motivational attributes of Islam affect the loyalty of visits at a rate of 0.000 each substantially; 0,000; 0,001; 0,000. A value significantly < 5% was used in this study (see Table 7).

Figure 4: Driving, Attracting, Islamic Attribute Motivation, Visiting Satisfaction, and Visiting Loyalty



6.1 Confirmatory factor analysis

The quality of the data in the hypothesis test will affect the results of the test accuracy. The validity and reliability testing assess the quality of data.

6.2 Validity Test

The validity test measured the validity of the questionnaire. The comparing the sig (2-tail) value with alpha, so the statement is said to be valid if the sig (2-tail) value is <alpha 0.05 performed the validity tests.

6.3 Reliability Test

The Alpha Cronbach coefficient with an Alpha Cronbach value of 0.908 each; 0,973; 0,949; 0,921; 0,919 tested the reliability of the research instruments.

6.4 Classic Assumption Test

The normality test, multicollinearity test, and heteroscedasticity test conducted the classic assumption test. The test result was that the data distributed normally with a value of Asym Sig (2-tailed) of 0.123; the data did not occur multicollinearity with a tolerance value of > 0.1 and a VALUE of VIF < 10. The data also did not happen heteroscedasticity with an alpha value greater than 0.05.

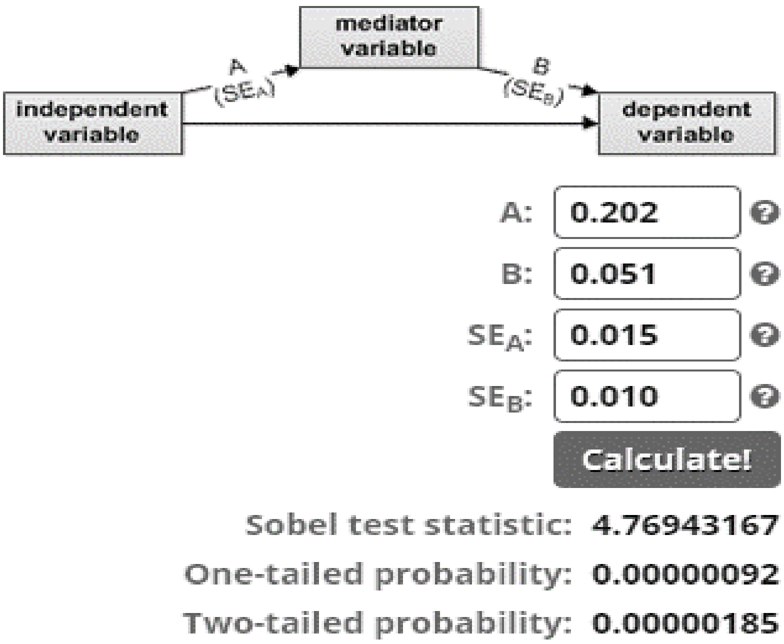
Table 2: Structural Model Testing

Sig	**Description**	**Hypothetical acceptance/rejection**
0,000	The driving Motivation variable directly influences Visit Loyalty.	hypothesis one is accepted.
0,000	Attracting the Motivation variable directly influences Visit Loyalty.	hypothesis two is accepted.
0,001	Islamic Attribute Motivation variable directly influences Visit Loyalty.	the third hypothesis is accepted.
0,473	Driving Motivation indirectly influences Visit Loyalty (through Visit Satisfaction)	hypothesis four is rejected.
0,000	Attracting Motivation indirectly influence Visit Loyalty (through Visit Satisfaction)	hypothesis five is accepted.
0,249	The Islamic Attribute Motivation indirectly influences Visiting Loyalty (through Visit Satisfaction)	the sixth hypothesis is rejected.

6.5 Sobel Test Analysis

Sobel test analysis of service quality variables (X) on visitor satisfaction variables (Z) through visitor loyalty (Y) and sobel test analysis of rate variable (X) to visitor satisfaction variable (Z) through visitor loyalty (Y) used in this study is a sobel test. Sobel test analysis of service quality variable (X) to visit loyalty variable (Y) through visit satisfaction (Z) and sobel test analysis of rate variable (X) to visitor satisfaction variables (Z) through visitor loyalty (Y) used in this study is a sobel test.

Figure 5: Sobel Test of Attracting Motivation to Visit Loyalty through Visit Satisfaction



Based on the results of calculations in the Sobel Test Calculator application for the significance of Mediation t calculate the value of 4,769 greater than t table 1,968, significance level of 0.05, and two-tailed probability value of 0.000 < 0.05. Thus visit satisfaction significantly mediates the influence of attracting motivation on visit loyalty.

6.6 Path Analysis

Regression Analysis of Influence of Driving Motivation, Attracting Motivation, and Islamic Attribute Motivation on Visit Satisfaction– Equation 1.

The direct influence of Driving Motivation, Attracting motivation, and Islamic Attribute Motivation on Visiting Satisfaction is explained in the following regression equation model 1:

Table 3: ANOVA Result for Model 1

Model	Sum of Square	df	Mean Square	F	Sig.
1 Regression	4176,211	3	1392,070	361,248	,000b
Residual	1132,930	294	3,854		
Total	5309,141	297			

a. Dependent Variable: Visiting Satisfaction

b. Predictors: (Constant), Islamic attribute motivation, driving Motivation, attracting Motivation.

Based on ANOVA test or F test that the result is 361,248, which is significantly on level 0,000 < (α) = 0,05, it can be said that Islamic attribute motivation, driving motivation, attracting motivation significantly influence visiting satisfaction.

Table 4: Coefficients [a] of Model 1

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	,796	,396		2,008	,046
Driving motivation	,011	,015	,039	,718	,473
Attracting motivation	,202	,015	,816	13,402	,000
Islamic attribute motivation	,018	,016	,047	1,155	,249

a. Dependent Variable: Visiting Satisfaction

The results of the regression analysis explained that the independent variables, namely DM (Driving Motivation), AM (Attracting Motivation), are not significantly influenced to VS (Visiting Satisfaction) for each on levels 0,473 and 0,249. The attracting motivation significantly affects VS (Visiting Satisfaction) on level 0,000 or < 5 %, used in this analysis.

Tabel 5: Model Summary of Model 1

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,887a	,787	,784	1,96303

Predictors: (Constant), Islamic attribute motivation, driving motivation, attracting motivation.

The output of the summary model above shows that the value of R2 for this equation is 0,787. $\sqrt{}(1-R^2)$ calculated the value of e_1. So the value of $e_1 = \sqrt{}(1-0,787= 0,461$.

Regression Analysis of Effects of Driving Motivation, Attracting Motivation, Islamic Attribute Motivation and Visit Satisfaction on Visit Loyalty - Equation II

The direct influence of Driving Motivation, Towing Motivation, Islamic Attributes Motivation, and Visit Satisfaction on Visit Loyalty can be explained in the following regression equation II model:

Table 6: ANOVA Result of Model 2

Model	Sum of Square	df	Mean Square	F	Sig.
1 Regression	1634,676	4	408,669	357,599	,000b
Residual	334,844	293	1,143		
Total	1969,520	297			

a. Dependent Variable: Visiting loyalty
b. Predictors: (Constant), visiting satisfaction, Islamic attribute motivation, driving motivation, attracting Motivation.

Based on ANOVA test or F test with a result on 357,599 by a significantly level on 0,000 (< (α) = 0,05). It can be said that visiting Satisfaction, Islamic attribute motivation, driving motivation, attracting motivation significantly influence visiting loyalty.

Table 7: Coefficients of Model 2

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	-1,446	,217		-6,654	,000
Driving motivation	,043	,008	,264	5,424	,000
Attracting motivation	,051	,010	,336	4,861	,000
Islamic attribute motivation	,028	,008	,121	3,282	,001
Visiting satisfaction	,159	,032	,261	5,010	,000

a. Dependent Variable: visiting loyalty

The driving motivation (DM), attracting Motivation (AM), Islamic attribute motivation (IAM) significantly influence Visiting Loyalty (VL) on level for each 0,000; 0,000; 0,001; 0,000 explained by the result of regression analysis. A significant value < 5 % was used in this research.

Table 8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,911a	,830	,828	1,06902

Predictors: (Constant), Islamic attribute motivation, driving motivation, attracting motivation

The summary model results above show that the value of R^2 for these two equations is 0,830. $\sqrt{(1-R^2)}$ calculated the value of e_1. The amount of the value $e^2 = \sqrt{(1-0{,}830}= 0{,}412$.

7. Discussion and implications

The results of hypothesis 1 in this study are in line with Bhuiyan et al., (2016) research, which states that a person's psychology while in saturation, a lot of pressure makes the need to rest and visit a tourist destination. Tourists will return to revisit the tourist destination so that the driving's motivation significantly affects the visit's loyalty.

The results of hypothesis 2 in this study are in line with Choi et al. (2016), and Cronjé & du Plessis' (2020) researches. They stated that tourism development with massive promotion could become a tourist attraction to visit the destination. According to the research of Al-Ansi & Han (2019) found that the availability of worship places makes tourists feel comfortable and not confused about performing worship, mostly Muslim. Ageeva & Foroudi's (2019) and Collins-Kreiner's (2020) stated that the identity of the nation and the uniqueness of the culture, the customs of the community could be the attraction of tourist visits to visit again so that the motivation of the driving has a significant effect on the loyalty of the visit.

The results of hypothesis 3 in this study are in line with Akhtar et al. (2019); Al-Ansi & Han's (2019) researches. They stated that halal restaurants' availability in a tourist destination is a plus so that tourists will visit again. According to the research of Akhtar et al. (2019), and Al-Ansi & Han (2019), they found that the motivation of Islamic attributes has a significant effect on the loyalty of visits.

This study is not in line with Huang & Pearce's (2019) research, which suggests that Muslim tourists have difficulty finding halal food and worship places. This research is similar to Hughes et al. (2013) research, which states that historical sites such as Cathedral in the UK offer architecture and typical Cathedral artworks to increase spiritual levels. The religious, historical places focus only on religious tourists' facilities even though different religions can visit the tourist destination. It is difficult for Muslim tourists to carry out religious orders when traveling to Muslim minority tourist destinations.

The results of hypothesis 4 in this study showed that the number of Muslim settlers feels unhappy and dissatisfied when visiting tourist attractions because it is influenced by facilities that are less concerned

with aspects of halal tourism destinations. This research is not in line with Al-Ansi & Han's (2019), Bayih & Singh's (2020), and Fajriyati's et al. (2020) researches. They stated that motivations such as intention, psychological and social circumstances could be essential to restore the state of physic and spiritual with one of the tours. Al-Ansi et al. (2019) research found that tourists who are happy to have vacationed to a tourist destination and feel satisfaction then feel loyal to revisit because all the needs of tourists' psychology can be met and recommend to the broader community. The driver's motivation does not affect the visit's loyalty through the visit's satisfaction.
The results of hypothesis 5 in line with Barcelos et al. (2019) research that good governance of tourism management can attract tourists to visit again. Ageeva & Foroudi's, (2019), Al-Ansi et al. (2019), and Ali et al. (2020) researches mentioned that attracting motivation such as facilities, services, the local community's state, and environmental security affect the motivation to tourist satisfaction and revisit. Thus the motivation of the driving affects the loyalty of the visit through the satisfaction of the visit.

This research is not in line with Iliev's (2020) research, which states that religious tourist destination facilities must maintain existing history, sites, and culture to sustain local uniqueness and wisdom. The development of halal tourism is not significant in the religious tourism of the Muslim minority state.

The results of the hypothesis of 6 studies are in line with Fajriyati et al.'s (2020) research, which states that the Motivation of Islamic attributes does not affect visitation satisfaction. Bali situation, an international tourist destination, and most local people are non-Muslim and many non-Muslim tourists. Hence, there is still a lack of awareness for halal tourism development, evidenced by even many lodgings that provide alcoholic beverages instead of mineral water.

This research is not in line with Akhtar et al.'s (2019), Al-Ansi & Han's (2019), Eid & El-Gohary's (2015) researches. They mentioned that a tourist destination with the availability of halal food, places of worship, separate public toilets, qibla signs make it easy for tourists to carry out religious orders. Thus the motivation of Islamic attributes does not affect the visit's loyalty through the visit's satisfaction. Tourism is becoming a global industry that is very important for both developing and developed countries. According to Rangus' (2016) research that the importance of tourism is that it has been widely discussed and analyzed through comprehensively dedicated research, seminars, and conferences to impact the vast tourism industry on the local, national and global economies.

The study shows that tourism in Indonesia leads tourists' motivation on Islamic services and Islamic products affect the loyalty of tourist' visits significantly. These findings suggest that the motivation of Islamic attributes significantly affects the satisfaction of tourist visits. According to the research of Hassani & Moghavvemi (2019), and Yang et al. (2019) which stated that religion affects a person's cognition and psychological well-being, which, in turn, affects a person's choice of goals and product preferences. These results are consistent with previous research of Patwardhan et al. (2020) which showed a link between religion, loyalty, satisfaction, and motivation of tourists.

The results underscore the critical role of Islamic values on tourism behavior and influence the decision-making process of each component of government tourism through transportation and services. The people maintain cleanliness and comfort for tourists during their arrival to Indonesia and entrepreneurs or people who provide souvenirs, traditional fabrics, traditional cuisine, traditional dances, and other professions. Most respondents agreed with applying hospitality value to services, facilities such as friendly people, hotels, halal food, and drinking. Some tourists are not strict about the attributes of Islam in their chosen destination. This study confirms that Islamic Motivation significantly affects the satisfaction and loyalty of tourists. These findings are consistent with previous research that found that Islamic motivation is related to traveler's motivation to drive motivation and attract motivation.

7.1 Theoretical Implication

Tourism development in developing countries requires improving services to keep up with global trends. Tourist destinations must continue to innovate constantly, not only physically but also the values offered. Tourist destinations need to reposition the market to create new tourism destination products and services, maintain repeat visits, and stimulate new markets. From an economic perspective, tourist destinations are more than just geographical places that tourists visit.

7.2 Managerial Implication

The private or public sector can organize tourist destinations. The change in attitude on tourist destinations from merely "place" or "region" to "product" and even "experience gathering." It depends mostly on the point of view of various parties involved in it, such as local host communities, public administration, object destination managers, tourists, etc., who have diverse destinations and needs.

7.3 Policy Maker Implication

As a sustainable industry based on spirituality, economic tourism, which is the principle to "sell" tourism, impacts tourism management. Tourism has a long-term pattern, so it requires integrative studies of various components of actors, governments, manufacturers, art activists, hotel managers, transportation owners, communities, schools, and universities.

8. Conclusions

Religious tourism is respectful of the availability of spiritual attributes such as halal food and drink, qibla directions, prayer mats, and even holly Qur'an provided by the hotel manager. Religious tourism includes the invitation of spirituality and encourages the improvement of economic trends through national foreign exchange. Many Muslim customers and travelers naturally prefer to continue practicing their beliefs during their travels and holidays, such as praying and consuming halal food and using products and services. Research on religious-based tourism contributes to the development of management concepts and methods.

9. Limitation and further research recommendation

Limitations in this study are still shortcomings; Bali and Jogjakarta's tourist destinations have cultural structures, customs, and habits of people with different religious majorities. For foreign tourists who vacation for a relatively long time feel less happy. R Square rate of 78.8% is with the criteria of moderate variable loyalty visits influenced by the attracting motivation, driving motivation, and motivation of Islamic attributes; unscamined variables affect the remaining 21.2%. Thus, so that the value of R Square in the criteria is good, > 80%. Halal tourism development advice in Bali is expected to be further improved, such as the availability of Muslim places of worship, gender-specific separate toilets, and halal food for Muslim tourists' convenience. Researchers can then add unstudied variables such as general risk on trust, destination image, and so on. Researchers can then use the new analysis tools for more accurate results.

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Ethical Approval

This article does not contain any studies with human participants or animals performed by any of the authors.

Conflict of Interest

The authors declare that they have no competing interests.

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Do Global Capital Inflows Affect Banking Sectors' Profitability? Evidence from EM-20 Emerging Economies

Semliko Fulbert Dossou[1]

ABSTRACT

Studies showed that global capital movements had positive, negative or null effects on the general economy in host countries. But what is unknown is their effects on the different sectors-of-activities that compose the general-economy. This paper analysed a sample of countries currently recognized as the top 20 emerging economies (EM-20), to investigate the effects of Global Capital Inflows (GCI) on their banking sectors'profitabilities over the 1998-2018 period. The reason of selecting the banking sector was to point out whether this sector played a contributory-moderating role or rather a brake over the period considered. The Fixed-Effect/Random Effect Models, and Robust-Least-Squares were applied. As main findings, over the 1998-2008 period only two components, but over 2009-2018, Foreign Direct Investments, Foreign Portfolio Investments, External Short Term Debts, and Remittances had positive effects on banking sectors'profitabilities (ROA and ROE) in EM-20 countries. The dynamic analysis shows that for the FDI, FPI and REM, the magnitudes of the effects were less intense before the crisis than after; while for ESTDBT, it was the inverse. Among the control variables, those which had positive effects were the Economic-growth, Inflation, and Interest rate, while Exchange rate showed negative effects. The results highlighted the contributory-moderating role of banking sector on the GCI-ΔGDP relationship in EM-20.

ملخص

أظهرت الدراسات أن تحركات رأس المال العالمية كان لها آثار إيجابية أو سلبية أو منعدمة على الاقتصاد العام في البلدان المضيفة. ولكن المجهول هو تأثيرها على مختلف قطاعات الأنشطة التي يتألف منها الاقتصاد العام. وقد حللت هذه الورقة البحثية عينة من البلدان المعترف بها حاليا على أنها أول 20 اقتصاد ناشئ (EM-20)، للتحقيق في آثار التدفقات العالمية لرأس المال (GCI) على أرباح قطاعاتها المصرفية خلال فترة 1998-2018. ويتمثل سبب اختيار القطاع المصرفي في توضيح ما إذا

[1] Department of Business Administration, Gazi University, Ankara, T¿rkiye.
E-mail: semliko.fd7@yahoo.com

كان هذا القطاع قد لعب دورا وسيطا إسهاميا أو بالأحرى كابحا خلال الفترة المذكورة. وتم تطبيق نماذج التأثير الثابت/ التأثير العشوائي والمربعات الصغرى للانحدار القوي. وكنتائج رئيسية، خلال فترة 1998-2008، كان هناك مكونان فقط، ولكن خلال الفترة 2009-2018، كان للاستثمارات الأجنبية المباشرة، واستثمارات الحافظة الأجنبية، والديون الخارجية قصيرة الأجل، والتحويلات آثار إيجابية على أرباح القطاعات المصرفية (ROA و ROE) في بلدان الأسواق الناشئة-20. ويُظهر التحليل الديناميكي أنه بالنسبة للاستثمار الأجنبي المباشر، والاستثمار الأجنبي في الحوافظ المالية، والتحويلات، كانت حدة التأثيرات أقل قبل الأزمة من مستواها بعد ذلك؛ بينما بالنسبة للدين الخارجي قصير الأجل (ESTDBT)، كان الأمر مخالفا. ومن بين متغيرات التحكم التي كان لها آثار إيجابية، نذكر النمو الاقتصادي، والتضخم، وسعر الفائدة، بينما أظهر سعر الصرف تأثيرات سلبية. كما سلطت النتائج الضوء على دور الوسيط الإسهامي للقطاع المصرفي في علاقة GCI-ΔGDP في الأسواق الناشئة العشرين.

ABSTRAITE

Des études ont montré que les mouvements de capitaux mondiaux avaient des effets positifs, négatifs ou nuls sur l'économie générale des pays d'accueil. Mais ce que l'on ignore, ce sont leurs effets sur les différents secteurs d'activité qui composent l'économie générale. Ce document a analysé un échantillon de pays actuellement reconnus comme les 20 premières économies émergentes (EM-20), afin d'étudier les effets des flux de capitaux mondiaux (GCI) sur les bénéfices de leurs secteurs bancaires sur la période 1998-2018. La raison du choix du secteur bancaire était de mettre en évidence si ce secteur a joué un rôle contributif-modérateur ou plutôt un frein sur la période considérée. Les modèles à effet fixe/effet aléatoire et les moindres carrés robustes ont été appliqués. Les principales conclusions sont les suivantes : sur la période 1998-2008, seules deux composantes, mais sur la période 2009-2018, les investissements directs étrangers, les investissements de portefeuille étrangers, les dettes extérieures à court terme et les envois de fonds ont eu des effets positifs sur la rentabilité des secteurs bancaires (ROA et ROE) dans les pays EM-20. L'analyse dynamique montre que pour les IDE, les FPI et le REM, l'ampleur des effets était moins importante avant la crise qu'après ; tandis que pour l'ESTDBT, c'était l'inverse. Parmi les variables de contrôle, celles qui ont eu des effets positifs sont la croissance économique, l'inflation et le taux d'intérêt, tandis que le taux de change a eu des effets négatifs. Les résultats ont mis en évidence le rôle contributif-modérateur du secteur bancaire sur la relation ICG-ΔPIB dans l'EM-20.

Keywords: Global Capital Inflows, Banking Sector Profitability, Top 20 Emerging Economies (EM-20)

JEL Classification: F21, F65, F43, G21, P45

1. Introduction

The free movement of global capital, in particular into emerging countries, was born out of the global trend towards financial liberalization adopted by most of these countries since the 1980s. Studies have shown that these capital movements in turn have - positive effects (Adeola, 2017, Portes & Rey, 2005; Zhang, 2001; Borensztein, et al., 1998); negative (Reinhart and Rogoff, 2010; Carkovic & Levine, 2005); or mix-effects (Mody and Murshid, 2005; De Mello, 1999) - on the economy in general in the host countries. However, their effects on the different sectors of activity that make up the general economy seem little explored.

The banking sector (especially in emerging countries) plays an important and strategic role in the economy. Indeed, this sector involves significant inflows of global capital. Important resources mobilization is necessary to achieve strong economic growth in a sustainable development program. However, available national resources are often insufficient and difficult to predict to achieve this end (Kinda, 2009); hence the need to resort to external capital support. This justifies the important role of Global capital inflows (GCIs) in financing a country's sustainable development needs.

Financial integration, as is well known, is a system that facilitates free flows of capital, mainly from capital-rich economies to emerging economies in search of higher returns. Integration in its generality has many advantages but at the same time entails risks. Indeed, the general belief according to which financial integration would positively influence integrated economies was called into question after the experiences of the 2008 global financial crisis. Consequently, research interest was intensified to understand and control the kind of effects (positive, negative, or null) that the GCIs have on the financial sector of (integrated) host countries.

The main objective of this study is therefore to examine the effects of Global capital inflows on the banking sectors' profitability for the top 20 emerging economies (EM-20) over the 1998-2018 period. The points that motivated this research are the following:

(1) The effects of GCIs can be positive (growth engines), null, or even negative (source of instability according to their volatility, the way of using, or the macroeconomic characteristics of the host environment).

(2) Most of the previous studies focused on two components of GCIs, analyzing their effects on Economic Growth. This study took into-account five components analyzing their effects on the banking sector's profitability and drawn attention to the fact that the effects of GCIs on each sector of the economy should be considered.

(3) Many previous studies already support the positive effects of ICGs on the economic growth of the host country (Adeola, 2017; Ziesemer, 2012; Zhang, 2001; Portes & Rey, 2005). The reason why the banking sector is selected - to study the effects of capital movements - is to point out whether the banking sector played a contributory moderating role or rather a brake over the period considered. This could open up other ways of subsequent researches.

The remainder of this article was organized as follows: Sections 2 and 3 respectively dealt with the literature review and the methodology. Section 4 presented the regression results and finally, the conclusion was provided.

2. Literature Review

2.1. Theoretical Background: Brief Reminders about the Financial Liberalization Theory

2.1.1. Financial Liberalization Theory: Origins and Main Ideas

The financial liberalization theory appeared for the first time in [McKinnon (1973) and Shaw (1973)]'s writings, after the theoretical debates on the relationship between financial development and economic growth. Proponents of financial liberalization point out that the distortions that characterize the economy in developing countries stem from those of their embryonic financial system (Bentahar, 2005). They explained that the distortions were the result of inappropriate monetary policies, the weak role of financial intermediaries, and the increase of the state's intervention in the financial system. Shaw and McKinnon (1973) described this interventionism as "financial repression". The recovery of such an economy, described as a "superficial" economy (Shaw, 1973), must therefore target the element that is the source of the distortions i.e. interest rates, through their liberalization. For that, the liberalization theory is based on three main ideas: (1) the high sensitivity of savings to the interest rate; (2) the perfect complementarity between savings and investment; and (3) the positive effect of liberalization on economic growth. The pioneering work of the Neoliberal School certified that financial liberalization is the most effective way to stimulate domestic savings, increase productive investment, and ensure sustainable growth in developing countries. However, this first generation of works was limited to denouncing the perverse effects of the interest rates administration and the constitution of high compulsory reserves on savings and investment (Lajili, 2015).

The liberalization of the capital account allows for increased capital flows between capital-excess countries and countries that lack them. According to the neo-classics, that increases the savings available in developing countries, which have better investment opportunities. Enabling the technological knowledge dissemination and the more efficient managerial practices adoption, those capital movements stimulate economic growth. Foreign investors perceive as a positive signal, the removal of restrictions on capital flows (Michalet, 1999), and the sudden reversal of capital flows could be reduced by the presence of foreign banks (Goldstein and Turner, 1996). Indeed, economic growth would be hampered by a factor that curbs investment; ie the prohibitive tax on physical capital implemented by certain national governments (Gourinchas & Jeanne, 2002). However, a disciplinary effect is created with financial openness given that governments end up relaxing their tax systems in order to attract international capital. Thus, the distortions due to the taxation on capital are reduced, and savings are reallocated towards more productive jobs. Evidence shows that by removing restrictions on capital outflows, most of the developing economies experienced massive inflows of international capital, thereby increasing domestic market liquidity, reducing the risk premium for domestic securities, and therefore the cost of capital; that stimulated investment. Besides, various profit structures are set up, due to the increased foreign share in domestic banks. The relative systems of the domestic banking industry in terms of regulation and supervision are improving (Caprio and Honohan, 2000) and, that facilitates access to the international financial markets. Overall, external financial liberalization makes it possible to develop both financial markets and financial institutions (Levine, 1998). However, achieving effective results by taking advantage of those positive elements requires initial prerequisites.

2.1.2. Some Criticism against Financial Liberalization Theory

In absence of the prerequisites conditions, significant challenges in terms of the stability of the financial and macroeconomic system (leading to criticism against the theory) could ensue. Indeed, faced with disappointing experiences after the implementation of liberalization in certain developing countries (notably in Latin America and Africa), the theory was confronted with numerous criticisms. McKinnon's school assumed a growing relationship between savings and interest rates but did not discuss the income effect of the same relationship. According to the neo-structuralism school, the theory of financial liberalization neglected an important aspect characterizing developing countries: their financial markets are fragmented with the presence of the informal sector. Neo-liberals admit that banks are the main players in the organized financial market and the presence of the informal market is only a consequence of the financial repression. For the structuralists who place this sector at the heart of their analysis, the informal market is not a consequence of the repression, but rather coexists freely with the official financial market. Another essential aspect (which has sometimes led to systemic banking crises), was omitted or downplayed by the arguments in favor of financial liberalization: the systemic nature of the institutional changes due to liberalization (Gamra & Clevenot, 2006).

Whatever the results, the financial liberalization policy wasn’t abandoned. On the contrary, its implementation continued in an increasing number of countries, to varying degrees depending on the State and with adjustments; thus paving the way for increased international capital flows.

2.2. Emerging Economies’ Concept

Appeared since the 1980s with the rise of stock markets in developing countries, the concept of "emerging countries" remained a long time vague for a unanimous definition. The term "emerging markets" was used for the first time in 1981 by Antoine van Agtmael, a Dutch economist at the International Finance Corporation, to refer to "developing countries offering opportunities for investors" (Delannoy, 2012). The distinction became clearer between developed countries and emerging countries from the 2000s with the appearance of acronyms (table 1). However, there is still no unanimous definition of the term "emerging country" or "emerging economy". Objective criteria were proposed by specialists for a fairly precise definition approach (Vercueil, 2012). An emerging country, or emerging economy, or emerging market is a country characterized by:

(1) A Middle-income: GDP per capita located between those of the least developed countries and those of the rich countries; a standard of living and social structures converging with those of developed countries;

(2) Economic catch-up dynamics with strong growth potential: their long-term growth rate and their share in world income is increasing sharply; and

(3) Institutional and structural transformations with an economic opening to the rest of the world.

However, there is still no unanimous definition of the term "emerging country". Indeed, the lists of emerging countries have shown multiplications, and perpetual modifications or renewals, except for the unbeatable ones like Brazil, Russia, India, China, South Africa (BRICS) which appear systematically in most of the lists (Nicet-Chenaf, 2014). A summary of the most common acronyms is presented in chronological order through the table 1.

Table 1: Chronological order of acronyms related to emerging countries

N°	Acronyms	Grouped by (Author)	Year	Emerging countries included	Idea or criteria for grouping
1	**The Four Asian Tigers or Asian Dragons**	Ezra Feivel Vogel, Professor of the Social Sciences Emeritus at Harvard University, has written on Japan, China, and Asia generally (Vogel, 1991)	1991	South Korea, Hong Kong, Taiwan, Singapore	Refers to four Far Eastern states with strong and fast industrial and economic growth between the early 1960s and 1990s. They were the leading group of newly industrialized countries (NICs) and were considered as developed since the 1990s.
2	**BRIC (2001)** become **BRICS (in 2010)**	Jim O'Neill, chief economist of Goldman Sachs Investment Bank	2001	Brazil, Russia, India, China, and South Africa (added in 2010)	They can surpass total GDP of G7 countries by 2027 (Foroohar, 2009), and accounting around 40% of global GDP by 2050 (Keohane, 2011).
3	**MINT**	Fidelity Investments (a Boston-based asset management firm) and Jim O'Neill of Goldman Sachs	2001	Mexico, Indonesia, Nigeria, and Turkey	These countries will grow faster than the average in the coming decades
4	**NEXT-11**	Jim O'Neill, an economist of Goldman Sachs Investment Bank	2005	Egypt, Bangladesh, Iran, Indonesia, South Korea, Mexico, Nigeria, Pakistan, Philippines, Turkey, Vietnam	A group of big eleven emerging markets identified by Goldman Sachs who have high potential, along with BRICS
5	**CIVETS**	Michael Geoghegan, an analyst of the Economist Intelligence Unit, an international banking business executive, who served as the chief executive (CEO) of Bank HSBC	2008	Colombia, Indonesia, Vietnam, Egypt, Turkey, and South Africa	Countries whose average annual growth rate is estimated at 5% for the 20 years following 2008.

Table 1 (continued): Chronological order of acronyms related to emerging countries

N°	Acronyms	Grouped by (Author)	Year	Emerging countries included	Idea or criteria for grouping
6	**MIST**	Jim O'Neill, an economist of Goldman Sachs Investment Bank	2010	Mexico, Indonesia, South Korea, and Turkey	These countries show accelerated growth
7	**EAGLEs (Emerging And Growth-Leading Economies)**	BBVA Research (a group of 200 economists and strategists) BBVA means: Banco Bilbao Vizcaya Argentaria, a multinational Spanish Banking Group, formed in 1999 by merging BBV and Argentaria (Marques-Aparício, 2014)	2010	BRIC (Brazil, Russia, India, and China) + MIST (Mexico, Indonesia, South Korea, and Turkey) + Egypt and Taiwan	According to BBVA, these countries (which expanded list is established over the years), are expected to lead world economic growth in the 10 years following 2010 and could generate 50% of global economic growth.
	"Nest" ("nid")			Argentina, Bangladesh, Colombia, Malaysia, Nigeria, Pakistan, Peru, Philippines, Poland, South Africa, Thailand, and Vietnam	Another set of countries whose expected incremental GDP (in the 10 years following 2010) should be lower than the average of the G6 economies, but higher than that of Italy (the smallest contributor of G6).
8	**BENIVM**	Grouped by Laurence Daziano, Lecturer in Economics at the IEP of Paris	2013	Bangladesh, Ethiopia, Nigeria, Indonesia, Vietnam, Mexico	A population of at least 100 million; a 10-year growth rate hovering around 5%; a rapidly growing urbanization; infrastructure needs stimulating economic take-off; expected political stability.
9	**BRIICSSAMT**	Alexandre Kateb, economist and specialist of emerging countries	2013	Brazil, Russia, India, Indonesia, China, South Africa, Saudi Arabia, Argentina, Mexico, and Turkey	To further expand the acronym BRICS by including all emerging economies of G20. "Economies having crossed the threshold of 1000 billion dollars of GDP, except Argentina which is around 500 billion"
10	**E-20 (Emerging Markets 20)**	Emerging Market Multinationals Report (EMR, 2018)	2018	Argentina, Brazil, Chile, China, Colombia, Egypt, India, Indonesia, Iran, Korea, Malaysia, Mexico, Nigeria, Philippines, Poland, Russia, Saudi Arabia, South Africa, Thailand, and Turkey.	These countries were recognized in 2018 as the top 20 Emerging Markets and were selected based on their GDP performances, demographics, and their influences in the global trade and investments (EMR, 2018).

Source: Created by the author based on the literature review

2.3. Global Capital Flows and Their Different Components

In international economic relations, one of the most important constituents in terms of volumes is the international capital movement (Yalçıner, 2012). This study adopted the World Bank (2018) classification in which, the five main components of International Capital

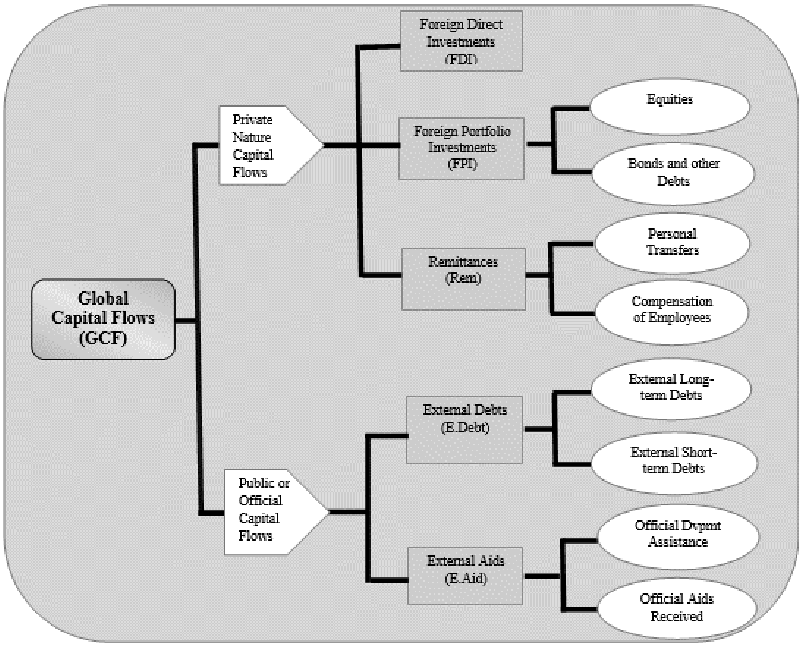
Flows retained were: the Foreign Direct Investments (FDI), the Foreign Portfolios Investments (FPI), the External Debts (EDBT), the External Aid (EAID), and the Remittances (REM). From the point of view of the funds' ownership, one can distinguish:

(1) Public capital movements, which are official and in the form of subventions or credits intended to finance the economic development of the countries. Generally, these official capital movements are carried out directly between governments, between government agencies; between international credit institutions and governments, or between international credit institutions and government agencies. In this category, EDBT and EAID can be cited.

(2) Private global capital flows; this is a type of capital movement that has been on the rise since the late 1980s. In this category FDI, FPI, and REM can be cited. Other classifications also exist: for example, the classification according to the direct or indirect mechanism (function) of the funds; or rather the classification according to the type of instruments used for investments.

It is noted that in this paper the expression "Global Capital Flows" is used instead of "foreign capital flows" which appears to be less broad. Indeed, one of the main components of GCF, i.e "remittances" and which has grown in recent decades, is taken into account in this research. And these remittances include those of natives exercising (or working) abroad. In other words, the concept of this component cannot be limited to only "foreign capital flows". However, this study focused on “capital inflows” which represent a branch of “capital flows”. The following conceptual flow (figure 1) chart provides an overview of different components of Global Capital Flows.

Figure 1: Conceptual Framework of Global Capital Flows



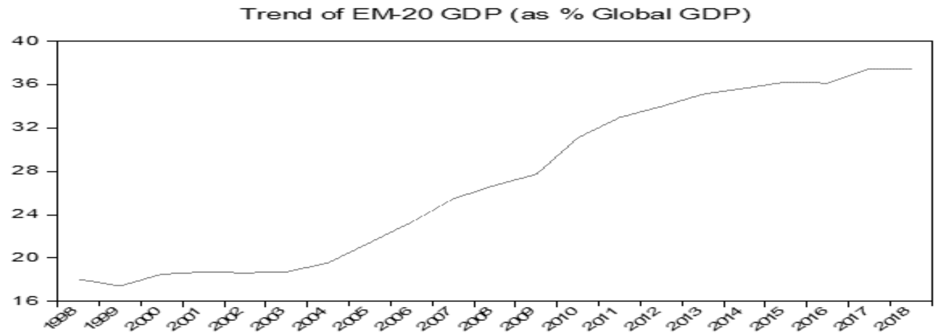
Source: Created by the author based on the literature review

Due to globalization, the interests in researches concerning the Global Capital Flows, their components, and effects are growing in international management, both academically and professionally.

The Major Trends Over the 1998-2018 Period

This subsection presented with graphic illustrations, the main trends in terms of GDP and of Global Capital Inflows (GCIs) components relating to the top 20 Emerging Economies. Overall, according to the forecasts of BBVA Research (2010), the Emerging Economies were expected to lead world economic growth over the 10 years following 2010; which was real. According to estimates based on the data in our possession, over 1998-2008, the share of EM-20 in the Global GDP increased from 18.04% to 26.70% (an increase of about 8.66 points), while over the 2009-2018 period, this share increased from 27.73% to 37.40% (a progression of around 10 points). The slope of the curve increased further upward from 2004 until after the 2008 financial crisis; as shown in Figure 2.

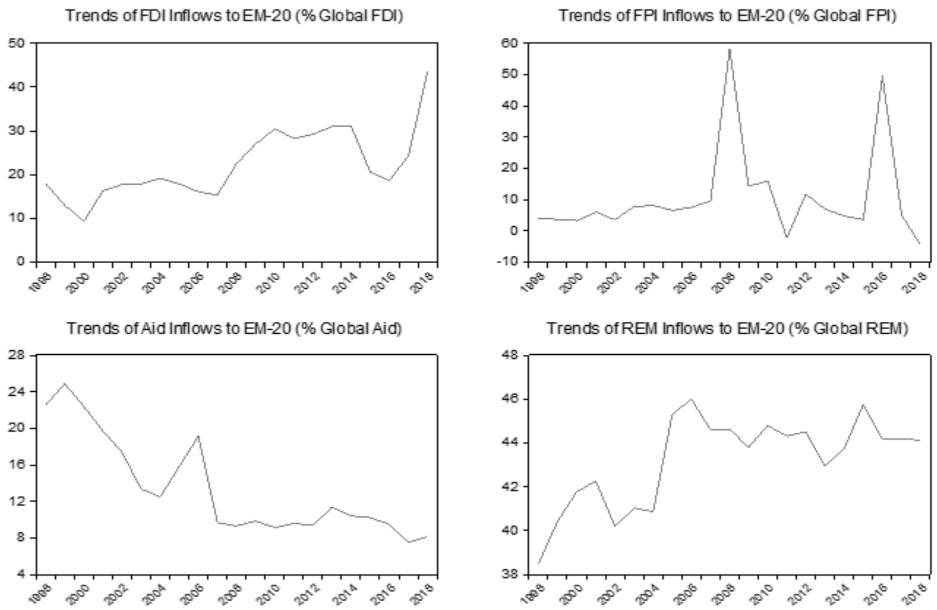
Figure 2: Trend of total GDP in EM-20 (as a % of global GDP) from 1998 to 2018



Source: Author’s compilation based on World Bank WDI's data sources, (2018)

As for the GCIs, the trends varied from one component to another, as illustrated by the graphs of figure 3.

Figure 3: Trends of global capital inflows to EM-20 (as a % of GCI) from 1998 to 2018



Source: Author’s compilation based on World Bank WDI's data sources, (2018) The trends showed that the majority of these inflows were unstable, unpredictable and that, their volatilities increased over time (especially capital generating private debts). The changing characteristics of the macroeconomic, institutional, and financial environment in host countries played an important role in these movements. Furthermore, previous studies have shown that capital inflows to emerging countries were strongly correlated with changes in conditions in the global macro-financial context since they increased significantly when global interest rates were relatively low and risk aversion (of investors) was weak (IMF, 2011).

FDI and Remittances Inflows showed a general and continuous growth over the 1998-2018 period. However, after the 2008 crisis, the REM showed an almost constant trend) but fluctuating (within an interval); and over the 2016-2018 period, the slope of the FDI Inflows trend curve increased further upwards.

FPI Inflows showed a general downward trend, relatively high degrees of instability with amplified fluctuations over time. After a remarkable jump in the months preceding the 2008 global crisis, FPI inflows fell sharply in the aftermath of this crisis, before showing a rebound over 2014-2015, and then relapsed again over 2016-2018. This highlights the relatively high degree of volatility of this type of GCIs, always in permanent migration according to the prevailing conditions.

External AID Inflows showed a general downward trend. As it seems logical, the number of countries in EM-20 group (receiving external Aids) gradually decreases over the years. On the contrary, some of them (such as China and India) have rather begun and continue to send Aid to the least developed countries.

2.4. Previous Empirical Studies

The literature is filled (replete) with various studies dealing with the impacts of Global Capital Flows on economic growth. However, to our knowledge, those focusing exclusively on the banking sector seem very scant. As it is well known, in each country the banking sector plays a crucial role in the financing of activities contributing to economic growth. To this end, we consider that the results of previous workings related to the effects of Global Capital Flows on economic growth could serve as inspiration and illumination in the present study. A synthesis of previous works is presented in this section through tables 2 to 4 below.

Table 2: Summary of Empirical Literature review on Foreign Direct Investments and Foreign Portfolio Investments' Effects

Author, Year	Methodology					Results
	Sample of countries	Period	Dependent variable	Independent variable	Technical estimations	
Foreign Direct Investments' Effects						
Adeola, (2017)	4 countries studied in SSA (sub-Saharan Africa)	1970 to 2011	Real GDP per capita	FDI÷GDP, Portfolio Equity÷GDP, External debt÷GDP, ODA÷GDP, Remittances÷GDP	OLS; Co-integration tests; VECM; SUR (Seemingly Unrelated Regression) Model.	FDI have a positive impact on Economic growth in host countries.
Li et Liu, (2005)	84 countries: 21 developed, 63 developing	1970 to 1999	GDP per capita growth	FDI inflow (% of GDP)	Panel data, Cross-sectional analysis	Promotion of Economic growth.
Alfaro et al., (2004)	20 OECD + 51 non-OECD = 71 countries	1975 to 1995	Real GDP per capita (Growth rate)	FDI inflow (% of GDP)	Cross-section OLS regression,	Great positive effect on Economic growth in host countries where financial markets are developed.
Zhang, (2001)	11 economies in East Asia and Latin America	1960 to 1992	Annual growth rate of real GDP	FDI stock/GDP (in log form)	Error correction model	Positive effects depending on country's macro-economic (stability, trading liberalization, improved education, and human capital).
Carkovic & Levine, (2002)	72 selected countries	1960 to 1995	Real GDP per capita growth rate	FDI (% of GDP)	Panel data; OLS + GMM dynamic estimator	Negative and no robust effects of FDI on Economic growth
Konings, (2001)	3 countries: Bulgaria, Poland, Romania	1993 to 1997	Output	FDI; FDI*T (FDI and Time trend interaction)	Panel data; Fixed effect model; OLS; IV in GMM dynamic estimator	Negatively affect Bulgarian and Romanian domestic firms; Insignificant and ambiguous effects in Poland
De Mello, (1999)	32 selected countries	1970 to 1990	Growth rate of GDP	FDI	Panel data; Fixed effects model; Mean groups estimation	Effects are mixed depending on FDI and DI substitution and/or complementarity

Table 2 (continued): Summary of Empirical Literature review on Foreign Direct Investments & Foreign Portfolio Investments' Effects

Author, Year	Methodology					Results
	Sample of countries	Period	Dependent variable	Independent variable	Technical estimations	
Foreign Portfolio Investments' Effects						
Adeola, 2017	4 countries studied in sub-Saharan Africa (SSA)	1970 to 2011	Real GDP per capita	FDI÷GDP, Portfolio Equity÷GDP, External debt÷GDP, ODA÷GDP, Remittances÷GDP	OLS; Co-integration tests; VECM; SUR (Seemingly Unrelated Regression) Model.	Positive relationship between portfolio Investments and External aid; some violence periods affects portfolio equity level and official devlopmnt assistance into the country.
Portes and Rey, 2005	14 countries	1989 to 1996	Equity in log form (gross purchase, portfolio equity sale)	Market capitalization	Cross section gravity model. FE panel data estimation, GLS	Strong and positive evidence of geographical component importance in international asset flows.
Edwards, 2001	65 countries: 21 industrial and 44 emerging economies	1975 to 1997	GDP per capita	Level of capital account restrictions. Debt/GDP, Equity/GDP, FDI/GDP	Panel WLS estimation, IV-WLS, W2SLS, W3SLS, and SUR	Positive relationship after reaching a particular development threshold. A clear improvement is observed in countries with open capital accounts compared to those that are restricted.
Durham, J., 2004	80 countries	1979 to 1998; annual	GDP per capita growth	FDI and EFPI	Cross-sectional OLS regression	The level of financial or institutional develpmt plays a crucial role in the "absorptive capacity" of FDI and EFPI by host countries.
Kodongo and Ojah, 2012	Egypt, South Africa, Nigeria, and Morocco	01/1997to 12/2009; monthly data	Net portfolio flows	Real exchange rate	VAR	For all the countries included in the study, the contribution of (relatively volatile) inflows portfolio investments to economic growth proved to be insignificant.
Oney, B; Halilsoy, H., 2011	21 high-income OECD countries	1980 to 2001	Real GDP; real phys. capital; stock and productivity growth.	Banking development (measured by) Private credit, the liquidity and the size of the stock market.	Cross-country study. OLS technique	No significant effects found on contribution to GDP growth.

Source: Created by the author based on the literature review

Table 3: Summary of Empirical Literature review on External Debts' Effects

Author, Year	Methodology					Results
	Sample of countries	Period	Dependent variable	Independent variable	Technical estimations	
External Debts' Effects						
Baum, Checherita-Westphal, and Rother, (2013)	12 Euro area countries	1990 to 2010	Real GDP growth rate	Ratios of Debt÷GDP, Gross fixed capital formation ÷ GDP	Panel GMM, OLS, IV 2SLS	Positive with low debt ratio (if $\alpha < 67\%$); α represents the debt % to GDP Nul and insignificant effect (if $67\% < \alpha < 95\%$). Negative effect with high debt over 95% (if $\alpha > 95\%$).
Adeola, 2017	4 countries in sub-Saharan Africa (SSA)	1970 to 2011	Real GDP per capita	External debt÷GDP, ODA÷GDP, Remittances÷GDP	OLS; VECM; SUR (Seemingly Unrelated Regression) Model.	External debt negatively influenced economic growth.
Akram, N, 2013	4 South Asian countries: Bangladesh, India, Pakistan and Sri Lanka	1975 to 2011	Real GDP growth; Investmnt – GCF/GDP	PPG external debt/GDP, Domestic debt/GDP, Debt servicing PPG/Export	FE, RE, Pooled OLS, Dynamic GMM, and System GMM	An "over-indebtedness effect" and a possible "crowding out effect" due to negative effects of external public debt on economic growth were found. Negative relationship between domestic debt and economic growth. Similarly for investments.
Reinhart and Rogoff, 2010	44 countries; 20 advanced, 24 emerging economies	200 years of data. 1946 to 2009; 1900 to 2009	Real GDP growth	Average external debt to GDP ratio	Panel data, VECM (Vector Error Correction Model)	Weak relationship between public debt and real GDP growth (if ratios of debt ÷ GDP <90%); But for a threshold> 90%, there was a 1% decrease in median growth rates. In emerging economies, the threshold is lower. For a threshold of 60% of external debt-to-GDP ratio, the annual growth decreases by 2%. With a higher threshold, the growth rate decreases by 50%. Also, the higher the debt, the higher the inflation rate. For advanced countries, no relationship was found.
Rodrik and Velasco, 1999	32 emerging market economies	1988 to 1998	Ratio of Short-term debt to total debt	Debt/GDP; M2/GDP	Probit analysis; cross-section and panel with FE regressions	Short-term external debt options aggravate the economy (especially in times of crisis). In other words, other options should be considered in terms of external capital flows.
Frankel and Rose, 1996	105 countries	1971 to 1992	Per capita GDP growth	External debt/GDP	Panel data, GMM	A high ratio of External Debt ÷ GDP per capita high is always linked to a high risk of negative impacts.
Mody and Murshid, 2005	60 developing countries	1979 to 1999; annual and 3-year period	Domestic investment ÷GDP	FDI, Portfolio flows, and loans of commercial bank	Instrumental variables estimat° and dynamic panel GMM	Mixed results: positive effects on national investments in countries where better policies are adopted, but negative if not.

Source: Created by the author based on the literature review

Table 4: Summary of Empirical Literature review on Remittances and External Aids' Effects

Author, Year	Methodology					Results
	Sample of countries	Period	Dependent variable	Independent variable	Technical estimations	
Remittances' Effects						
Adeola, 2017	4 countries studied in sub-Saharan Africa (SSA)	1970 to 2011	Real GDP per capita	FDI÷GDP, Portfl Equity÷GDP, External debt÷GDP, ODA÷GDP, Remittances÷GDP	Tests of Co-integration and Vector Error Correction Model (VECM)	In two of the four studied countries in sub-Saharan Africa, the effects of remittances (recognized as a growing form of Global capital flows) were positive on economic growth.
Ziesemer, T, 2012	52 countries	1972 to 2005	GDP per capita	Workers' remittances/GDP	Panel GMM, OLS, and FE	The positive influences of remittances were found on the growth rate of GDP per capita, the savings rate as well as education and public expenditures.
Adenutsi, 2009	31 developing countries: 15 SSAs and 16 LACs	1996 to 2006	Log of Real GDP per capita	Log of remittances per capita	System GMM	Positive long-term contributions of remittances to economic growth more in LAC than in SSA were found. From a dynamic point of view, growth is delayed by short-term remittances, but in the long run the overall influence becomes positive.
Acosta, et al., 2008	54 industrial and developing countries	1970 to 2000; 5yperiod	GDP (per capita)	Remittances÷GDP	GMM estimation	Remittances have helped reduce poverty, inequality and increase the rate of economic growth.
Rao and Hassan, 2011	40 countries	1960 to 2007;	Output growth rate per worker (average of 5-year)	Ratio of remittances to GDP	FE and RE estimation, SGMM	Direct negative effects of remittances but insignificant were found on growth; however, possible minor indirect effects may exist.
Buch and Kuckulenz, 2004	87 developing countries	1970 to 2000	GDP per-capita	Remittances/GDP and Remittances per capita	GLS estimator	Ambiguous results: at first, negative; however, when the data from the 1990s were excluded from the analysis, the effects found became positive. Developing countries recorded a stable influx of money.

Table 4 (continued): Summary of Empirical Literature review on Remittances and External Aids' Effects

Author, Year	Methodology					Results
	Sample of countries	Period	Dependent variable	Independent variable	Technical estimations	
External Aids' Effects						
Adeola, 2017	4 countries studied in sub-Saharan Africa (SSA)	1970 to 2011	Real GDP per capita	FDI÷GDP, Portfolio Equity÷GDP, External debt÷GDP, ODA÷GDP, Remittances÷GDP	OLS; Co-integration tests; VECM; SUR (Seemingly Unrelated Regression) Model.	The results indicate that external aid positively and significantly influences equity and Real GDP per capita; however in certain periods of violence incidences could appear on results.
Dalgaard, Hansen, and Tarp, 2004	65 Countries; SSA and EA	1974 to 1997; 4year periods	Average growth rate in real GDP per capita	Aid/GDP	OLS regression and panel GMM regression	In tropical countries with large areas of land, the effects of external aid on growth seem less significant. In other words, the influence of the aid depends on the conditions of the host environment.
Moreira, S, 2003	48 developing countries	1970 to 1998; 6y averages	Per capita GDP growth rate	Domestic saving, ODA, private flows and other official flows (% GDP)	GMM estimator	The analysis showed that deadlines play an important role in aid influences. The effects of long run aid are more positive and significant than the short term one.
Papanek, 1973	85 countries	1950 to 1970	Annual rate of increase in GDP	Savings, Aid, Foreign private investment (FPI) and Other foreign inflow (OFI)	Cross country regression analysis. Pooled cross-section. Simple least square estimate	Overall, the results indicate positive and significant effects.
Ram, 2004	56 aid-receiving countries	1970 to 1993	Real GDP per-capita growth rate	Aid, Bilateral aid and Multilateral aid	OLS regression	The influence is positive when the help interacts with the policy variable; this observation turns to negative in opposite the case.
Mosley et al., 1987	80 less developed countries	1960 to 1980	GNP (Growth rate)	Aid inflows (gross ODA), domestic savings, foreign priv cap inflows (all as % of NI)	Cross-section OLS, 2SLS, 3SLS	Effects of aid on the GNP growth rate are insignificant. So, high efficiency countries with policies favoring high investment returns should be favored by aid donors.

Source: Created by the author based on the literature review

From the literature review summarized in the above tables, it is clear that results from previous studies are diverging. However, most of them which focused on global capital flows effects on economic growth, found positive effects as results. This study focused on global capital inflows (GCI) effects on the banking sector of emerging countries. If at the end of the analyzes, the results reveal positive effects of GCI on Banks, then one could easily deduce that the banking sector plays a contributory moderating role in the effects of GCI on GDP.

3. Methodology

3.1. Period, Sample, and Variables

The study covered the 1998-2018 period. This period was chosen in line with the high appearance frequency of the countries selected in our sample as emerging economies, and deals with the post period of "financial liberalization reforms". So the data cover 21 years period, and are subdivided into 2 episodes: the first one takes place from 1998 to 2008 (between the 1997 Asian crisis and the 2008 global financial crisis) while the second one is associated with the period after the global financial crisis. The sample consisted of the countries of Africa, Asia, Latin America, and Europe, which were recognized in 2018 as the top 20 Emerging Economies (please see Table 1). These countries have regularly appeared with a high score of presences on lists made by different groups of analysts during this last decade. Iran's banking data was not available, and Iran was replaced by Peru, a country fairly close to the first 20 emerging countries. There are several measures in the literature used to assess Global capital inflows and bank profitability. GCI are evaluated in this study distinguishing five components for which data exist for each selected country. The measures used to assess bank profitability are chosen in line with recent trends in bank performance measures (Mishkin & Eakins, 2016). In addition, five additional control variables were used. Table 5 gives a synthetic presentation of the variables, their definitions, and their sources.

Table 5: The variables used, their definitions, and their sources

Variable	Symbol	Definition (Calculation)	Expected Effect	Data Sources
1)- Dependent variables				
Return on Equity	ROE	Profits after tax / total Equities (%)	NA	Databases of Central Banks, FRED
Return on Assets	ROA	Profits after tax / Total Assets (%)	NA	
2)- Independent variables				
2.a)- Explanatory variables				
Global Capital Inflows *(Aggregate to be broken down)*	GCI	Total Inflows of Global capital into the country *j* in year *t* in American dollars (% of GDP)		Matrix Databases of IFS, IMF, World Bank
Foreign Direct Investment	FDI	Foreign Direct Investment Inflows (% of GDP)	+	
Foreign Portfolio Investment	FPI	Foreign Portfolio Investment Inflows (% of GDP)	+/-	
External Debts	EDebt	External Debt Inflows (% of GDP) - Long-Term External Debt Flows - Short-Term External Debt Flows	+/-	
External Aids	EAid	External Aids Inflows (% of GDP)	+	
Remittances	Rem	Remittances Inflows (% of GDP)	+	
2.b)- Controle variables				
Home GDP growth	ΔGDP	Growth in home nation GDP from year t-1 to year t (%)	+	Databases of IFS, IMF, OECD, Central Banks, World Bank
Inflation rate	INFL	Annual growth rate of consumer price index; GDP deflator (%)	+/-	
Interest rate	INT	Nominal rate is the rate on short-term government securities or the commercial bank deposit interest rate (%).	+/-	
Official effective exchange rate	Exchg	Annual average dollar price	+/-	
Openness to trade	Opns	Exports + Imports (% of GDP)	+	

Source: Created by the author based on the literature review

3.2. Model Specification

3.2.1. Panel Data Method

There are two main approaches used in panel regressions, which are different from the Restricted Least Squares Regression (ROLS) method. These methods are the Fixed Effects Model (FEM) and the Random Effects Model (REM). The test proposed by Hausman (1978), makes it possible to make the best choice among these models. Initially, the panel data regression model can be written as below:

$$Z_{it} = \alpha_{1it} + \alpha_{2it}X_{2it} + \ldots\ldots\ldots\ldots\ldots\ldots\ldots + \alpha_{pit}X_{pit} + \varepsilon_{it} \qquad (1)$$

The above general model has ‘p’ variables where i = 1,2, ..., G is the cross-sectional unit and t= 1,2, ..., n is the time series data. α_{2it} to αpit represents the slope of unknown coefficients. The coefficients α_{1it} and α_{2it} which represent fixed-term contain both time and cross-sectional effects and it provides differentiation opportunity for periods and units. In addition, the non-probable error term εit is assumed to have zero mean and a constant variance $E[\varepsilon_{it}] = 0$ and $Var[\varepsilon_{it}] = \sigma_e^2$. The slope of coefficients is unknown and they vary for different cross-sectional units and different periods of time. However, when estimating the model, it is assumed that the error term and the slope of the coefficients are constant.

3.2.2. Fixed Effects Model (FEMo)

FEMo can be expresses as follows:

$$Z_{it} = \overline{\alpha} + \beta_i + \alpha_{2it} + \alpha_{2it}X_{2it} + \ldots\ldots\ldots\ldots\ldots\ldots\ldots + \alpha_{pit}X_{pit} + \varepsilon_{it} \qquad (2)$$

i =1, 2……. G, and t=1, 2……. n

From equation (2) above, the $\alpha+\beta_i$ represents unit-specific constant; $\overline{\alpha}$ has a constant mean. β_i represents the difference from the average constant term for the unit.

The appropriate estimation method for estimating equation (2) depends on whether βi is fixed or random (Judge and al., 1985). If there is a relationship between the error term in equation (2) and explanatory variables, FEMo is considered as the appropriate model. Because in this case, FEMo estimators are unbiased.

3.2.3. Random Effects Model (REMo)

Contrary to the assumption of FEMo, if individual effects are not related to the explanatory variables in the model, it is more appropriate to assume that the fixed terms are distributed randomly according to the units and make modeling accordingly (Wooldridge, 2002). Thus, the constant term in equation (1) α_{1it} is not constant and therefore the mean of $\overline{\alpha}$ will be a random variable. In this case, the fixed term value for each unit will be $\alpha_{1it} = \alpha+\mu_i$; and μ_i is a random error term with zero mean and constant variance. The equation for REMo can be written as follows:

$$Z_{it} = \overline{\alpha} + \beta_i + \alpha_{2it} + \alpha_{2it}\mathrm{X}_{2it} + \ldots\ldots\ldots\ldots\ldots\ldots\ldots + \alpha_{pit}\mathrm{X}_{pit} + \varepsilon_{it} \qquad (3)$$

From equation (3) above the error term (ui) is the compound error term and its components are the individual error term (ui) and the panel error term εit. The main difference between FEMo and REMo can be seen by comparing equations (2) and (3). In FEMo, each cross-sectional unit has its own fixed term; In REMo, the constant term gives the mean constant term (β) for all cross-sectional units, and the error term ui represents the random deviation of the constant term for each cross-sectional unit from this average constant term. Random-Effect-Model was used for the estimates when the results of the Hausman test allowed it.

3.2.4. The Explicit Form of the Model

Finally, the retained explicit model for estimation is as follows:

$$ROE_{jt} = \lambda_j + \alpha_1\mathrm{FDInvest} + \alpha_2\ \mathrm{FPInvest} + \alpha_3\mathrm{EDebt} + \alpha_4\mathrm{EAid} + \alpha_5\mathrm{Rem} + \beta_\tau\mathrm{K}_{jt} + \lambda_t + \varepsilon_{jt} \qquad (4a)$$

$$ROA_{jt} = \lambda_j + \alpha_1\mathrm{FDInvest} + \alpha_2\ \mathrm{FPInvest} + \alpha_3\mathrm{EDebt} + \alpha_4\mathrm{EAid} + \alpha_5\mathrm{Rem} + \beta_\tau\mathrm{K}_{jt} + \lambda_t + \varepsilon_{jt} \qquad (4b)$$

Where:

The dependent variables are:

- ✓ ROE_{jt}: the profitability (Return on Equity) for the banking sector in country *j* in year *t*.
- ✓ ROA_{jt}: the profitability (Return on Asset) for the banking sector in country *j* in year *t*.

And the independent variables are:

- ✓ X_{jt}: the matrix of Global capital inflows received by country *j* in year *t*. Namely Foreign direct investments, Foreign portfolio investments, External debts, External aids, and Remittances.
- ✓ K_{jt}: the matrix of the control variables of country *j* in year *t* (as described in table 5).

The country and time fixed effects are respectively λ_j and λ_t while ε_{jt} is the error term.

4. Empirical Results

One of the preliminary analysis consisted of testing which method was appropriate between the fixed effect and the random effect. The Hausman test was used and the obtained results were presented in Table 6.

Table 6: Estimation Results of Hausman Test

	1998-2018	1998-2008	2009-2018
ROA	Ho : Var(u) = 0 Chi2(1) = 27.834889 Prob. > chi2 = 0.0001	Ho : Var(u) = 0 Chi2(1) = 8.116163 Prob. > chi2 = 0.2297	Ho : Var(u) = 0 Chi2(1) = 5.224578 Prob. > chi2 = 0.5153
ROE	Ho : Var(u) = 0 Chi2(1) = 19.760959 Prob. > chi2 = 0.0031	Ho : Var(u) = 0 Chi2(1) = 6.718501 Prob. > chi2 = 0.3477	Ho : Var(u) = 0 Chi2(1) = 5.395445 Prob. > chi2 = 0.4942

Source: Authors' estimations

- Over the 1998-2018 period

According to the test results, there are no random effects in the model over the 1998-2018 period considered as a whole, and the fixed-effect model was used in the study. In order to obtain consistent and robust results from the model discussed, there should be no autocorrelation and homoscedasticity assumptions. At this point, the autocorrelation test by Wooldridge (2002) and the heteroscedasticity test proposed by Greene (2002) were performed.

- Over the 1998-2008 and 2009-2018 periods

According to the test results, there was a random effect in the model for the 1998-2008 and 2009-2018 periods taken separately. Therefore, the random effect model was applied.

4.1. Effects on Banking Sector’s Return on Assets (ROA)

Table 7 showed the estimation results for GCI'effect on the ROA as dependent variable.

Table 7: Estimation results for ROA as dependent variable

	1998-2018	1998-2008	2009-2018
Variables	Fixed Effect Model Panel Least Squares	Random Effect Model Panel EGLS	Random Effect Model Panel EGLS
FDI	0.32150** (0.17942)	0.45309** (0.14236)	0.60205*** (0.1216)
FPI	0.193464* (0.1443)	0.151131 (0.08498)	0.329740** (0.12936)
ELTDBT	0.035952* (0.3669)	0.08013 (0.0212)	0.035059 (0.01086)
ESTDBT	0.17591*** (0.1120)	0.22208*** (0.0504)	0.04173** (0.03682)
EAID	-0.180202 (0.0950)	-0.088813 (0.06592)	0.039357 (0.02857)
REM	0.61501** (0.2246)	0.42036* (0.1801)	0.5657*** (0.1579)
ΔGDP	0.099457** (0.0166)	0.155326* (0.0812)	0.176934** (0.0568)
INFL	0.03026*** (0.01258)	0.04018*** (0.01006)	0.01136*** (0.0046)
INT	0.05686*** (0.02860)	0.05357*** (0.0249)	0.04946*** (0.0159)
EXCHG(-1)	-0.006607* (0.00187)	-0.001187 (0.001042)	-0.00543** (0.00114)
OPNS	3.00E-05 (0.000789)	6.06E-05 (0.000581)	3.63E-05 (0.000339)
C	0.610318 (0.1216)	0.639832 (0.3008)	1.000159 (0.2570)
Adj. R-squared	0.6524	0.4748	0.5338
Cross-sections	20	19	20
Included Obs.	1280	652	628

Legend: Standard errors are in parenthesis; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.
Source: Author's estimations

The results showed that overall, the main findings were as follows: Before the 2008 financial crisis, only two components, but over the period after (i.e. 2009-2018), Foreign-Direct-Investments (FDI), Foreign-Portfolio-Investments (FPI), External-Short-Term-Debts (ESTDBT), and

Remittances (REM) had positive effects on banking sectors' profitabilities (ROA) in EM-20 countries. The effect is such that an increase by one unit in each of these Global Capital Inflows (GCI) results in an increase of 0.321 ($p < 0.05$); 0.193 ($p < 0.1$); 0.175 ($p < 0.01$), and 0.865 ($p < 0.05$) respectively in the ROA in terms of percentage point. The results can be seen in column 1. The dynamic analysis shows that for the FDI, FPI and REM, the magnitudes of the effects were less intense before the crisis than after; while for ESTDBT, it was the inverse. The results can be seen in columns 2 and 3. The effects of other components of Global capital inflows remained statistically insignificant for the considered period. With regard to the control variables, the results showed that: GDP, Inflation, and Interest rates had positive effects on ROA while the effects of Exchange rates were rather negative.

The positive effects of FDI on the profitability of the banking sector can be partly explained by the significant advantages they brought, by the creation of high-quality jobs, the implementation of modern production and management practices, and the increased competitiveness. It's clear that the FDI effects are not always immediate and are distributed unevenly between sectors so that their magnitude differs over time depending on the host country and the context. These results are in fact the fruit of FDI realised several years ago (in the form of foreign banks penetrations), after the attractive financial policies and adjustments were implemented. It is commonly accepted that the positive effects of FDI far outweigh the negative effects. This theory is more confirmed if the host countries manage to use the advantages drawn from the presence of multinationals to develop the latent sectors of the economy. From this point of view, by easing financial constraints, the EM-20 have been able to put in place general, transparent, and investment-friendly policies and conditions and have been able to build the human and institutional capacities necessary to exploit them. To attract more of these types of capital, a stable political and macroeconomic environment, security and insurance are necessary. These results were consistent with the conclusions of Adeola, (2017), Kirikkaleli (2013), Rother (2013), Ziesemer, (2012), Denizer, et al. (2007), Li & Liu (2005), and Alfaro et al. (2004).

The positive effects of ESTDBT provide evidence that: (a) one part of ESTDBT were oriented to the banking sector improvement and/or were used for well-targeted purposes over this period; (b) the acceptable debt threshold (in terms of amount) for which the effects of external short-term debts would become negative hasn't been crossed. In fact, as explained in section 2.4, pieces of evidence from empirical previous studies have shown that there are thresholds not to be crossed in terms of indebtedness. And, (c) the recipient country's macro-economic environment for ESDBT was favorable over this period. In other words, it would be beneficial for the financial authorities in the concerned countries to maintain, (and even to reinforce) the prudential policies that enabled them to achieve such success. These results corroborated those of some other authors, even though they have been much more interested in economic growth than in banking sector profitability. We can cite Reinhart & Rogoff (2010) and, Baum et al. (2013).

Concerning the positive effects of REM, when the financial reforms and favorable policies were implemented in EM-20, (individual) foreign investors and even natives (of these countries) who were living abroad have begun to see their homeland as a promising destination for financial investments. This made them more inclined to invest in the country, which led to an increase in remittances via the banking sector. Even better, a significant portion of these funds would be invested in banks rather than the stock market or other sectors. This, therefore, contributed positively to the ROA of bank profitability. However, the crises in different parts of the world had certainly negative effects on many senders of geographically dispersed funds. This led to the slowing down of the REM inflows. The results corroborated those of Adeola (2017), Ziesemer (2012), and Adenutsi (2009).

4.2. Effects on Banking Sector’s Return on Equity (ROE)

Although the ROA provides useful information on banks' profitability, it is not the indicator of the greatest interest to bank owners (equity holders). Bank’s shareholders worry more about the bank's income related to their equity investment; i.e. the Return On Equity (ROE). This ratio indicates the net profit (in terms of percentage) brought by each unit of currency (of their equity). Table 8 showed the estimation results for GCI'effect on the ROE as dependent variable.

Table 8: Estimation results for ROE as dependent variable

	1998-2018	1998-2008	2009-2018
Variables	Fixed Effect Model Panel Least Squares	Random Effect Model Panel EGLS	Random Effect Model Panel EGLS
FDI	0.448706** (0.05290)	1.149773* (0.9292)	0.52385*** (0.323)
FPI	0.963601 (0.2771)	2.262413* (0.7216)	1.075205** (0.2630)
ELTDBT	0.626109 (0.3043)	0.591034 (0.2780)	0.18811 (0.03429)
ESTDBT	0.3792*** (0.1426)	0.505222** (0.2265)	0.24760** (0.12083)
EAID	-5.74221*** (2.5760)	-3.041845 (1.2810)	1.261624 (0.7225)
REM	0.851745** (0.4321)	0.661894* (0.4412)	1.30152*** (0.9582)
ΔGDP	0.962522 (0.2268)	0.121053 (0.0278)	0.73207** (0.14153)
INFL	0.38819*** (0.0782)	0.651523*** (0.2054)	0.04846** (0.0264)
INT	0.79807*** (0.3802)	-0.79137*** (0.3414)	0.41554*** (0.01202)
EXCHG(-1)	0.07175 (0.03490)	-0.061524 (0.02352)	-0.05064** (0.0280)
OPNS	-0.00710** (0.00418)	-0.001457 (0.001876)	-5.85E-05 (0.00087)
C	6.878723 (3.2536)	7.172264 (2.2913)	12.08453 (6.0579)
Adj. R-squared	0.6076	0.4301	0.5538
Cross-sections	20	19	20
Obs.	1280	652	628

Legend: Standard errors are in parenthesis; *** p < 0.01, ** p < 0.05, * p < 0.1.
Source: Author's estimations

As it can be seen, overall the magnitudes differ, however in terms of sign and statistical significance, the effects on ROE were similar to those related to ROA.

The following sub-section presents the continuation of the analysis because it is obvious that the results could vary if the estimates are made in detail for each country taken individually. The Robust Least Squares was implemented as method. However, the number of observations for each country taken individually seems insufficient when the period of the study is divided into sub-periods (1998-2008 and 2009-2018). For this reason, the period 1998-2018 was analyzed in one block. Table 9 provides a synthetic overview of these estimations.

Table 9: Estimation Results for each Country

Variables	**ROA**	**ROE**	**Variables**	**ROA**	ROE
	Argentina			**Mexico**	
FPI	0.532859** (0.0425)	0.247303** (0.0730)	EAID	0.109214** (0.0653)	0.857526** (0.4603)
ESTDBT	-0.89891*** (0.0408)	-0.7403*** (0.02340)	REM	0.737332*** (0.06427)	0.443449*** (0.2102)
	Brazil			**Nigeria**	
FDI	0.383543** (0.0432)	0.037594** (0.0163)	FPI	0.6280891** (0.5642)	0.226514** (0.09546)
FPI	0.433077** (0.0142)	0.696185** (0.0406)	ELTDBT	-0.372826* (0.0805)	-0.416486** (0.1557)
REM	0.11282** (0.0508)	0.347348*** (0.02058)	REM	0.192762** (0.0228)	0.118818** (0.0792)
	Chile			**Philippines**	
FDI	0.063514*** (0.0286)	0.897704** (0.0250)	FPI	0.68902*** (0.1806)	0.63924*** (0.1248)
AID	0.315412*** (0.1557)	0.388842*** (0.0155)	EAID	-0.964706** (0.24506)	-0.11787*** (0.05349)
	China			**Peru**	
FDI	0.353654** (0.1271)	0.368607** (0.0412)	ESTDBT	0.210263*** (0.10245)	0.176484** (0.0972)
ELTDBT	0.342006** (0.1791)	0.222184** (0.0509)	ELTDBT	-0.193939** (0.0263)	-0.157714** (0.0684)
REM	0.115687*** (0.0572)	0.248806** (0.0847)	EAID	-0.16125*** (0.06795)	-0.13463*** (0.04234)
			REM	0.112929*** (0.05681)	0.961016*** (0.11569)
	Colombia			**Poland**	
FDI	0.126032*** (0.0648)	0.108875*** (0.06349)	FDI	0.512916** (0.0228)	0.217878** (0.1604)
ESTDBT	0.208912*** (0.01534)	0.189417*** (0.05703)	FPI	0.321547** (0.18167)	0.186254** (0.11354)
	Egypt			**Russia**	
ESTDBT	0.159808*** (0.08573)	0.224248** (0.0269)	FDI	0.461234*** (0.13428)	0.264632* (0.0848)
ELTDBT	0.179510*** (0.05627)	0.163031** (0.0874)	ELTDBT	-0.169246 (0.0111)***	-0.28933*** (0.11245)
			REM	0.152983 (0.0198)**	0.382917*** (0.1258)

Legend: Standard errors are in parenthesis; *** p < 0.01, ** p < 0.05, * p < 0.1.
Source: Author's estimations

Table 9 (continued): Estimation Results for each Country

Variables	**ROA**	**ROE**	**Variables**	**ROA**	ROE
	India			**South Africa**	
FPI	-0.084704* (0.0533)	Insignificant effects	FDI	0.227090** (0.1712)	0.178236*** (0.08469)
EAID	-0.249807*** (0.05670)	Insignificant effects	FPI	0.232210** (0.16142)	0.22040*** (0.05924)
REM	0.221722** (0.0742)	Insignificant effects	ESTDBT	0.199454** (0.0412)	0.403418*** (0.2058)
	Indonesia			**Saudi Arabia**	
FDI	0.154903** (0.0940)	Insignificant effects		No effects found	
EAID	-0.849895** (0.0249)	Insignificant effects			
	Korea			**Thailand**	
FDI	0.623329** (0.0349)	0.308094*** (0.09122)	FDI	0.465270** (0.3099)	0.6694816** (0.2433)
REM	0.312369*** (0.0410)	0.346764*** (0.06802)	ELTDBT	0.475678*** (0.09147)	0.59729*** (0.023467)
			REM	0.272703** (0.0228)	0.621749*** (0.02467)
	Malaysia			**Turkey**	
FDI	0.04346** (0.0314)	Insignificant effects	FDI	0.159793** (0.0419)	0.799238** (0.2487)
FPI	0.250781*** (0.10245)	0.195712*** (0.0108)	ESTDBT	0.54914** (0.2285)	0.180259** (0.0694)
ESTDBT	0.114489*** (0.05579)	Insignificant effects	ELTDBT	-0.05689** (0.0481)	-0.183801* (0.0965)
REM	0.147453*** (0.03543)	Insignificant effects	REM	0.854458*** (0.27060)	0.189417*** (0.09739)***

Legend: Standard errors are in parenthesis; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.
Source: Author's estimations

Implications

In accordance with expectations, the components of Global Capital Inflows affect differently the banking sector profitability from one country to another. When analyzing the results for each country individually, among the private global capital flows, the FDI, FPI, and REM while among the public global capital flows, the ESTDBT (in the majority) exhibited positive and significant effects on the banking sector profitability in these countries over the concerned period. The variations in the results point out not only the existence of macroeconomic, financial, and institutional characteristics specific to each country but also certain global factors that influence the countries differently from an economic region to another.

The results of this study highlight the contributory moderating role of the banking sector on the GCI-GDP relationship, in the EM-20. Indeed, the financial liberalization in these economies, the policy of opening up markets, and the less stringent restrictions on international investments that followed, resulted in increased capital flows between these countries and other countries/ regions of the world, positively affecting the banking sector, and ultimately contributing to the economic growth of these countries over the considered period.

5. Conclusion

The main objective of this paper was to analyze the effect of Global capital inflows (GCI) on the banking sectors' profitability in the top 20 emerging economies (EM-20) over the 1998-2018 period. Three points motivated this study: (1) the GCI can be growth engines and/or a source of instability (according to their volatility, the way of use, and/or the macroeconomic environment characteristics); (2) Most of the previous studies focused on two components of GCIs, analyzing their effects on Economic Growth. This study took into-account five components analyzing their effects on the banking sector's profitability before and after the 2008 global financial crisis; (3) Many previous studies already support the positive effects of ICG on the economic growth of the host country. The reason why the banking sector is selected - to study the effects of capital movements - is to point out whether the banking sector played a contributory moderating role or rather a brake over the period considered. This could open up other ways of subsequent researches. The results were carried out by using the Fixed Effect /Random Effect Models, and the Robust Least Squares with a panel sample of the EM-20 countries.

The main findings were as follows: Before the 2008 financial crisis, only two components, but over the period after (i.e. 2009-2018), Foreign-Direct-Investments (FDI), Foreign-Portfolio-Investments (FPI), External-Short-Term-Debts (ESTDBT), and Remittances (REM) had positive effects on banking sectors' profitabilities (ROA and ROE) in EM-20 countries. The dynamic analysis showed that for the FDI and REM, the magnitudes of the effects were less intense before the crisis than after; while for ESTDBT, it was the inverse. The effects of other capital flows remained statistically insignificant. With regard to the control variables, those which had positive effects were the Economic growth, Inflation, and Interest rate, while Exchange rate showed negative effects. The results of this study pointed out the contributory moderating role of the banking sector on the GCI-ΔGDP relationship in the EM-20 countries. Indeed, the financial liberalization in these economies, the policy of opening up markets, and the less stringent restrictions on international investments that followed, resulted in increased capital flows between this country and other countries/ regions of the world, positively affecting the banking sector, and ultimately contributing to the economic growth of these countries over the considered period.

Discussion: The financial liberalization is a policy with very long-term effects. Its implementation in the EM-20, with policy of opening up markets, attractive financial policies and adjustments, and less stringent restrictions on international investments that followed, resulted in increased capital flows between these economies and other countries/ regions of the world. That positively affected the banking sector, and ultimately contributed to the economic growth of these countries over the considered period. Besides, the dynamic analysis shows that for the FDI, FPI and REM, the magnitudes of the effects were less intense before the crisis than after. Indeed, after experiences of the crises previously experienced by certain countries of the MS-20, the effectiveness of the reforms and prudential policies implemented in several of these countries constituted for them an armor of resistance in the face of the 2008 global financial crisis, in relation to the economies developed which were very affected.

Limits: Although this study brings some contributions, it has limitations. In fact, only annual data were available for this research. It would be interesting to deepen this analysis by taking into account quarterly or even monthly data for further researches, and if possible, to analyze different activity sectors that make up the economy in general. Specific in-depth analyzes are needed to capture not only the statistical significance of the moderating role of the banking sector (as amplificator or attenuator) but also the magnitude (in terms of coefficients) of these moderations on the relationship between GCI and ΔGDP.

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Empirical analysis of country-level institutional quality and public debt: Perspective of South Asian countries

Waqas Mehmood[1], Rasidah Mohd-Rashid[2], Airil Khalid [3],
Attia Aman-Ullah[4], and Yasir Abdullah Abbas[5]

ABSTRACT

Present study inspects the effect of country-level institutional quality on public debt in the South Asian nations of Bangladesh, Bhutan, India, Nepal, Pakistan, and Sri Lanka. Present study focuses on the South Asian region's public debt from the angle of country-level institutional quality data from 2002 to 2018. It employs a dynamic heterogeneous panel approach, known as panel autoregressive distributed lag (panel ARDL) model entailing "dynamic fixed effect (DFE), mean group (MG), and pooled mean group (PMG)". Findings of the study suggest that governance indicators, namely political stability and control of corruption are negatively significant to explain public debt. While government effectiveness and rule of law have significant and positive effect on public debt. The long-run estimates seem to be homogenous for all the reviewed countries. However, the short-run estimates and the adjustment speeds to the long-run equilibrium are heterogeneous, which could be attributed to volatile governance in each of the cross-section countries. Policymakers can benefit tremendously from the study's findings, especially for countries experiencing significant fiscal and external imbalances caused by major war and terrorism implications, low oil prices, and poor trade. There is an urgent need to focus on public debt management issues that are typically caused by policymakers' inattentiveness to proper governance and macroeconomic management. Regulators can reduce public debt via image building for both the country and

[1] School of Economics, Finance and Banking, Universiti Utara Malaysia, Sintok, Malaysia waqas.mehmood61@gmail.com
[2] School of Economics, Finance and Banking, Universiti Utara Malaysia, Sintok, Malaysia m.rasidah@uum.edu.my
[3] School of Economics, Finance and Banking, Universiti Utara Malaysia, Sintok, Malaysia airil@uum.edu.my
[4] School of Business Management, Universiti Utara Malaysia, Sintok, Malaysia attiaamanullah@yahoo.com
[5] Department of Business Administration, Collage of Administration and Economics, Almaaqal University, Basrah, Iraq yaaaa.abdullah2016@gmail.com

the region, specifically by establishing a stable economic and political landscape as well as retaining macroeconomic stability through improvements in country-level institutional quality indicators.

ملخص

تستكشف هذه الدراسة تأثير الجودة المؤسسية على مستوى الدولة على الدين العام في دول جنوب آسيا مثل بنغلاديش وبوتان والهند ونيبال وباكستان وسريلانكا.وتركز على الدين العام لمنطقة جنوب آسيا من زاوية بيانات الجودة المؤسسية على مستوى الدولة ما بين 2002 و 2018. وهي تستخدم نهج اللوحة غير المتجانسة الديناميكية، والمعروف باسم نموذج لوحة الانحدار الذاتي للإبطاء الموزع (ARDL) الذي يستلزم "التأثير الديناميكي الثابت (DFE)، والمجموعة المتوسطة (MG)، والمجموعة المتوسطة المجمعة (PMG)". وتشير نتائج الدراسة إلى أن مؤشرات الحوكمة، وتحديداً الاستقرار السياسي والحد من الفساد، لها أهمية سلبية في تفسير الدين العام، في حين أن فعالية الحكومة وسيادة القانون لهما تأثير كبير وإيجابي على الدين العام. ويبدو أن التقديرات طويلة المدى متجانسة لجميع البلدان التي خضعت للمراجعة. ومع ذلك، فإن التقديرات قصيرة المدى ووتيرة عمليات التعديل على التوازن طويل المدى غير متجانسة، وهو ما يمكن أن يُعزى إلى تقلب الحوكمة في كل من البلدان الممثلة للعينة. ومن شأن صناع السياسات الاستفادة بشكل كبير من نتائج الدراسة، خاصة بالنسبة للبلدان التي تعاني من اختلالات مالية وخارجية كبيرة ناجمة عن تداعيات الحرب والإرهاب الرئيسية، وانخفاض أسعار النفط وضعف على مستوى التجارة.وإن هناك حاجة ملحة للتركيز على قضايا إدارة الدين العام التي تنتج عادة عن عدم اهتمام صناع السياسات بالحوكمة السليمة وإدارة الاقتصاد الكلي. ويمكن للجهات التنظيمية خفض الدين العام من خلال بناء صورة لكل من الدولة والمنطقة، وتحديدا من خلال إنشاء مشهد اقتصادي وسياسي مستقر بالإضافة إلى الحفاظ على استقرار الاقتصاد الكلي من خلال تحسين مؤشرات الجودة المؤسسية على مستوى الدولة.

ABSTRAITE

La présente étude examine l'effet de la qualité institutionnelle au niveau national sur la dette publique dans les pays d'Asie du Sud suivants : Bangladesh, Bhoutan, Inde, Népal, Pakistan et Sri Lanka. La présente étude se concentre sur la dette publique de la région de l'Asie du Sud sous l'angle des données de qualité institutionnelle au niveau des pays de 2002 à 2018. Elle utilise une approche de panel hétérogène dynamique, connue sous le nom de modèle de panel autorégressif à décalage distribué (panel ARDL), comprenant "un effet fixe dynamique (DFE), un groupe moyen (MG) et un groupe moyen combiné

(PMG)". Les résultats de l'étude suggèrent que les indicateurs de gouvernance, à savoir la stabilité politique et le contrôle de la corruption, sont négativement significatifs pour expliquer la dette publique. Alors que l'efficacité du gouvernement et la règle de droit ont un effet significatif et positif sur la dette publique. Les estimations à long terme semblent être homogènes pour tous les pays examinés. Cependant, les estimations à court terme et les vitesses d'ajustement à l'équilibre à long terme sont hétérogènes, ce qui pourrait être attribué à une gouvernance volatile dans chacun des pays de l'échantillon. Les décideurs politiques peuvent tirer un grand profit des conclusions de l'étude, en particulier pour les pays qui connaissent d'importants déséquilibres budgétaires et extérieurs causés par les conséquences de guerres majeures et du terrorisme, la faiblesse des prix du pétrole et la faiblesse des échanges commerciaux. Il est urgent de se concentrer sur les problèmes de gestion de la dette publique qui sont généralement causés par l'inattention des décideurs politiques à la bonne gouvernance et à la gestion macroéconomique. Les régulateurs peuvent réduire la dette publique en renforçant l'image du pays et de la région, notamment en créant un paysage économique et politique stable et en préservant la stabilité macroéconomique grâce à l'amélioration des indicateurs de qualité institutionnelle au niveau national.

Keywords: country-level institutional quality, public debt, South Asian countries, pool mean group analysis.

JEL Classification: N25, O17, H63.

1. Introduction

Public debt is deemed as a key player of the economic growth of developing nations. Public debt entails the sum of external and domestic debts. It also refers to the sum that a public system owes to external lenders, including individuals, businesses, governments, and international financial organisations. Many countries borrow from domestic and foreign markets to cover insufficient funds for their national activities.

Public debt is often utilised to finance the construction of new infrastructures or transportation systems, enhance education and healthcare services, or explore new energy sources (Mendonca & Tiberto, 2014). With efficient usage, it is a key financial source for improving domestic business landscapes, attracting foreign investments, and developing domestic business sectors (Jayaraman & Lau, 2009). Public debt can also help promote socio-economic activities; hence, increases in budget revenues (e.g., tax revenues) enable governments to repay their debts and achieve new levels of economic growth. There are also indications that public debt has only mild effect on economic growth (Bua et al., 2014).

However, high levels of debt have complicated the economies of many countries. Increased public debt means increased pressure to repay the debt in subsequent periods. Such mounting pressure will lead governments to impose higher tax revenues and incur lower expenditures (similar to a contractionary fiscal policy), leading to lower national output and ultimately resulting in macroeconomic imbalances (Correia & Martins, 2019). Consequently, rising cases of unemployment and poverty will cause business enterprises to experience lower market demands, with some going into bankruptcy, thereby ultimately prolonging economic recessions (Akram, 2016; Arawatari & Ono, 2017; Kumar & Woo, 2010a). Additionally, mounting and rapid pressure for debt repayment will cause a quick decrease in national savings, domestic investments, and economic growth (Furceri & Zdzienicka, 2012; Ncanywa & Masoga, 2018). A high public debt rate per gross domestic product (GDP) will reduce the attractiveness of the domestic investment landscape, thus discouraging foreign investment inflows. Several cases of severe public debt and financial crises have created economic instability, leading to reduced economic output growth (Furceri & Zdzienicka, 2012). Nevertheless, developing countries have derived immense benefits from public debt sustainability and experienced rapid economic growth due to lower interest rates from the mid-1990s to 2010 (Ferrarini & Ramayandi, 2016). Given the high demand for socio-economic development financing, public debt also scores high on many policymakers' preference list because it is unlikely to turn into bad debt.

Economic theory states that public debt can facilitate a country's economic growth. However, this is not the case with South Asian countries. Although public debt has been proven beneficial for countries with superior institutional quality (Jalles, 2011; Kim et al., 2017), South Asian countries have been accumulating public debt and performing poorly economically (Akram, 2011; Tung, 2020). Numerous debt management strategies have been implemented, including debt rescheduling, structural adjustment programmes, and debt relief initiatives; however, the region continues to experience increasing public debt and poor economic performance (Akram, 2016). Thus, there is a dire need to address this problem to avoid the recurrence of another debt crisis like the ones that hit the region from the 1980s to 2000s.

The past decades had witnessed considerable rises in government debt, motivating numerous scholars to scrutinize the impacts of public debt on economic development. A majority of them observed that external debt poses a non-linear effect on economic growth, with clearly damaging effects after a certain debt-to-GDP ratio is reached (Kumar & Woo, 2010b; Panizza & Presbitero, 2014; Reinhart & Rogoff, 2009, 2010). After thoroughly examining the data of public debt alongside its impact on the economic growth of Asian countries from 1970 to 2015, Gunarsa et al. (2020) confirmed the reduction in economic growth by public debt. However, they found very weak evidence to support this statement; for instance, 10% increase in debt can only reduce the economic growth up to 0.2% to 0.4%. Meanwhile, several studies witnessing developing countries revealed that the effect of public debt on economic growth depends on the size of debt adopted policies and institutional quality of those countries. Cordella et al. (2010) added that countries with weak institutional quality has lower debt ratios compared to their counterparts, depending on the debt size. Likewise, Asiedu (2003) indicated the importance of institutional quality in attracting investments, stimulating growth, and benefitting from debt relief policies. Thus, it is widely agreed that good governance can facilitate effective public debt management via the reduction of borrowing costs, mitigation of financial risks, and development of domestic debt markets. Good governance can also help maintain financial stability and boost domestic financial systems.

Additionally, some other researchers have emphasised the vital role of institutional quality in explaining growth variances among countries (Acemoglu et al., 2001; Butkiewicz & Yanikkaya, 2006). Finance has a more prominent effect on economic growth when the country possesses good institutional qualities (Law et al., 2013; Law & Habibullah, 2006). Hence, there is a need to further investigate the effect of institutional quality on the link between debt and growth, especially in the South Asian context where the topic has been largely disregarded. In general, countries with good institutions have an efficient public debt management system in place (Daud & Podivinsky, 2014); in contrast, countries with bad institutions make bad borrowing decisions, channel the borrowings to fund insignificant projects (Jalles, 2011), default on repayments, and demonstrate poor economic growth (Ciocchini et al., 2003).

Despite the availability of a large body of literature on the adverse effects of poor governance on growth (Depken & Lafountain, 2006; Tanzi & Davoodi, 2012), however the effect of institutional quality on public debt accretion recently attracted attention of researchers. Based on the notion that the poor growth of South Asian countries is caused by poor institutional quality (Tarek & Ahmed, 2017b) and massive debts (Akram, 2016), present study inspects the effect of institutional quality on public debt in the context of South Asian countries. Thereby resolving region’s prominent matter, which is poor institutional quality, manifested in the forms of high corruption levels, weak rules of law, mounting social conflicts, recurrent political volatilities, and armed conflicts. Due to all these reasons, fiscal and external inequities continue to rise owing to the mounting effects of war and public debt demands.

Based on the review of relevant literature on public debt, it was found that only a handful of studies have investigated regional country-level institutional quality variances with even fewer focusing on the South Asian region. Hence, this study intends to enrich the existing body of knowledge by examining this often-overlooked region. Additionally, studies on the relationship between institutional quality and public debt have mostly concentrated on the corruption index and neglected other governance indicators. Therefore, present study also intends to investigate the effect of institutional quality on public debt via six governance indicators.

This study focuses on the effect of governance on public debt, specifically the hypothesis proposing that poor governance causes greater public debt in the context of South Asian countries. South Asian countries have faced several policy-related challenges in recent years, such as civil wars, oil price drops, decreased fiscal revenues and currency shortages, refugee crises, terrorist attacks, regional conflicts, and political shifts due to the Arab Spring. Such challenges, particularly the implications of war, oil price drops, and trade decline have caused major fiscal and external imbalances in these countries, forcing their governments to raise public debt for economic improvement and development financing. This solution exposes these countries to national and international financial shocks, with smaller countries and emerging markets being the most vulnerable due to their less diversified economies, smaller domestic financial savings base, less efficient financial systems, and susceptibility to financial problems brought by capital flows. The 2016 Global Risks Report by the World Economic Forum ranked "failure of national government (e.g., failure of rule of law, corruption, political deadlock, etc.)" as the sixth most prospective global risk (International Monetary Fund [IMF], 2016). The current study's findings could offer governments valuable insights about the consensus concerning the soundest public debt management practices.

This paper will continue with Segment 2, which presents the literature review on governance and public debt, followed by Segment 3 on the study's methodology. Next, Segment 4 presents the empirical findings with the accompanying explanations, and finally, Segment 5 determines the study and presents the relevant implications.

2. Literature review

Keynesian and neoclassical economists have been debating the topic of public debt and its impacts since the 1930s. The neoclassical perspective deems public debt a lingering burden on subsequent generations and an impediment to national economic growth. Krugman (1988) supported this argument, stating that high public debt can discourage investments, thus stunting economic growth. When the level of public debt is higher than the level of domestic revenue generation, a country is likely to go into a debt default, which can discourage investors.

Several theories and empirical studies in the area of political economy indicate that up to a certain level, public debt can boost a country's economic performance by easing fluctuations (Barro, 1979) and re-distributing wealth (Debortoli & Nunes, 2008). Nevertheless, retaining the positive effects of public debt requires good governance. According to Kraay et al. (2010), governance entails the "traditions and institutions by which the authority in a country is exercised". Present study proposed six global governance indicators, with the ranking percentile ranging from 0 (the lowest) to 100 (the highest). A higher score indicates greater institutional quality or governance. Based on the above definition, governance involves three aspects: (a) government selection, monitoring, and replacement processes; (b) governmental capacity to develop and implement sound policies effectively; and (c) respect towards the governing institutions that oversee the economic and social relations between the citizens and the state. Each area has two governance measures, resulting in six dimensions for determining institutional quality:

- **Voice and Accountability**: Determines the degree of citizenry participation in government selection and in the freedoms of expression, media and association.

- **Political Stability and Absence of Violence**: Identifies the possibility that a government will be ousted via unlawful means, such as politically driven violence and terrorism.

- **Government Effectiveness:** It measures the governmental capacity to formulate and execute the sound policies and deliver public goods. This measure includes public service quality indicators as well as civil service quality and its political independence.

- **Regulatory Quality:** Measures the governmental capacity to formulate and execute the sound policies and procedures to allow and encourage private sector growth. This measure gauges opinions concerning those policies.

- **Rule of Law:** Gauges opinions about the degree of agents of tolerance towards society. For instance, contract enforcement quality, property rights, the police and courts, and the possibility of crime and violence.

- **Control of Corruption**: Gauges opinions about corruption, i.e., the application of public power to gain private benefits. Private benefits entail minor and major corruption and state hold by the elites and private interests.

To answer the question of how the six components of governance influence public debt, the present study must examine the factors driving government debt in terms of quantity and composition, specifically the political and institutional reasons leading to public debt . Alesina and Tabellini (1990) and Persson and Svensson (1989) introduced the positive debt theory which proposes that increase in public debts are solely driven by non-agreements among the politicians in office. The studies of Roubini and Sachs (1989), De Haan and Sturm (1997), and Woo (2003) also supported this notion by demonstrating the significant role of governance in public debt.

Contemporary studies find that developing countries' poor economic performance and high indebtedness are not solely caused by weak institutional quality. Inline, Jalles (2011) examined the effects of democratic accountability and corruption control on the link between debt and growth for 72 developing countries throughout 1970–2005. The author found that countries with effective debt utilisation had lower corruption levels. Kim et al. (2017) found a statistically significant effect of corruption on the link between debt and growth. Likewise, the study linking corruption, shadow economy, and government debt for the 1996–2012 period by Cooray et al. (2017) indicate that a shadow economy can aggravate the effect of corruption on public debt and that the variables are complementary of each other. The same study further proves that a shadow economy reduces tax revenue generation, leading to higher debts. Meanwhile, Daud and Podivinsky (2014) studied the linkage between economic growth, economic freedom and public debt in Malaysian context using the threshold approach and discovered that institutional quality poses contingency effects on the debt and growth relationship. Tarek and Ahmed (2017a) conducted a study on the Middle East and North Africa (MENA) region and tested the notion that poor institutional quality leads to public debt. Their findings confirm that debt is significantly driven by political stability, the absence of violence, regulatory quality, and the rule of law. The same study also proves that weak institutional quality significantly and indirectly causes poor GDP growth. Fan (2008) studied the effect of policy and institutional quality on the debt–growth link using 114 developing countries as a sample and found that the link was largely affected by both factors. Asiedu (2003) inspected the debt relief and institutional quality relationship in the context of highly indebted nations using 12 institutional measures and found that a majority of the heavily indebted countries had weaker institutions as compared to the countries with lower debts. Therefore, in order to get benefited from debt relief, it is crucial to have a certain level of institutional quality.

Even though the weak economic growth of a majority of developing countries is said to be caused by high public debts, the medium that allows such effect to take place is economic mismanagement due to weak institutional quality. Further research is needed in this often-disregarded area by concentrating on the impact of institutional quality on the linkage between debt and growth, especially in the South Asian region which has been long burdened by public debt crises. Thus, the purpose of this paper is to initiate research in this area.

3. Research methodology

3.1. Data, sources, and definitions

This study obtained its data from the databases of the "World Bank (World Databank), IMF (International Financial Statistics), and Worldwide Governance Indicators (WGI)". Data on six South Asian countries were compiled for further analysis from January 2002 to December 2018. These South Asian countries are Bangladesh, Bhutan, India, Nepal, Pakistan, and Sri Lanka. In this study, the dependent variable is the public debt to GDP ratio. Public debt entails the central public debt (accounting for over 90% of the governments' total debt). Six institutional quality measures are used in this study based on the WGI indicators, namely: 1) voice and accountability, 2) political stability and absence of violence, 3) government effectiveness, 4) regulatory quality, 5) rule of law, and 6) control of corruption. A measurement scale from 0 (the lowest) to 100 (the highest) is used, with higher values denoting superior governance (see. Table 1).

Table 1: Variable operationalization

Dependent variable		
Public debt to GDP ratio	The dependent variable is the public debt to GDP ratio, and this is defined as the central public debt, which accounts for over 90% of the government's total debt.	(Mehmood, Mohd-Rashid, Aman-Ullah, & Zi Ong, 2021; Shittu, Ismail, Latiff, & Musibau, 2020)
Independent variable		
Country level institutional quality		
• Voice and accountability	A measurement scale from 0 (the lowest) to 100 (the highest) is used, with higher values denoting superior governance	(Ogunniyi, Mavrotas, Olagunju, Fadare, & Adedoyin, 2020); Mehmood, Mohd-Rashid, Aman-Ullah, & Zi Ong, 2021); (Mehmood, Mohd-Rashid, & Tajuddin, 2021)
• Political stability and absence of violence	A measurement scale from 0 (the lowest) to 100 (the highest) is used, with higher values denoting superior governance	(Ogunniyi, Mavrotas, Olagunju, Fadare, & Adedoyin, 2020); Mehmood, Mohd-Rashid, Aman-Ullah, & Zi Ong, 2021); (Mehmood, Mohd-Rashid, & Tajuddin, 2021)
• Government effectiveness	A measurement scale from 0 (the lowest) to 100 (the highest) is used, with higher values denoting superior governance	(Ogunniyi, Mavrotas, Olagunju, Fadare, & Adedoyin, 2020); Mehmood, Mohd-Rashid, Aman-Ullah, & Zi Ong, 2021); (Mehmood, Mohd-Rashid, & Tajuddin, 2021)
• Regulatory quality	A measurement scale from 0 (the lowest) to 100 (the highest) is used, with higher values denoting superior governance	(Ogunniyi, Mavrotas, Olagunju, Fadare, & Adedoyin, 2020); Mehmood, Mohd-Rashid, Aman-Ullah, & Zi Ong, 2021); (Mehmood, Mohd-Rashid, & Tajuddin, 2021)

• Rule of law	A measurement scale from 0 (the lowest) to 100 (the highest) is used, with higher values denoting superior governance	(Ogunniyi, Mavrotas, Olagunju, Fadare, & Adedoyin, 2020); Mehmood, Mohd-Rashid, Aman-Ullah, & Zi Ong, 2021); (Mehmood, Mohd-Rashid, & Tajuddin, 2021)
• Control of corruption	A measurement scale from 0 (the lowest) to 100 (the highest) is used, with higher values denoting superior governance	(Ogunniyi, Mavrotas, Olagunju, Fadare, & Adedoyin, 2020); Mehmood, Mohd-Rashid, Aman-Ullah, & Zi Ong, 2021); (Mehmood, Mohd-Rashid, & Tajuddin, 2021)

This study also employs panel data analysis involving several tests, namely panel unit root, panel cointegration, and dynamic heterogeneous panel estimations, i.e., fixed effect (DFE), mean group (MG), and pooled mean group (PMG).

The model specification is as follows:

$$\begin{aligned} ln\,PD_{i,t,c} = \beta_0 + \beta_1\, lnVA_{i,t,c} + \beta_2\, lnPS_{i,t,c} + \beta_3 lnGE_{i,t,c} \\ + \beta_4 lnRQ_{i,t,c} + \beta_5 lnRL_{i,t,c} + \beta_6 lnCC_{i,t,c} + \varepsilon \end{aligned}$$

In the above equation, *lnPD*, refers to natural log of public debt to GDP ratio. Whereas, *lnVA* is the natural log of voice and accountability; *lnPS* is the natural log of political stability and no violence; *lnGE* refers to the natural log of government effectiveness; *lnRQ* is the natural log of regulatory quality; *lnRL* is the natural log of rule of law and lastly *lnCC* refers to the natural log of control of corruption.

3.2. Panel unit root tests

All the variables undergo panel unit root tests to ensure that spurious regression does not occur when the panel data is used. These tests are conducted mainly to solve the low power issue following the application of the Augmented Dickey-Fuller (ADF) test. According to Campbell and Perron (1991) and Ramirez (2007), estimation could be unreliable due to a low powered unit root test, i.e. when the number of time series observations is below 50. This issue can be overcome by conducting the panel unit root test, which has more power and a standard asymptotic distribution, leading to more reliable estimations. Two methods are adopted in this study, i.e. the Levin, Lin, and Chu (LLC) method as suggested by Levin et al. (2002) and the Im, Pesaran, and Shin (IPS) method, introduced by Im et al. (2003). This study also follows the suggestions of Maddala and Wu (1999) and Choi (2001) to use a more direct and non-parametric unit root test as well as the Fisher-ADF and Fisher-PP statistics.

3.3. Panel cointegration test

Since heterogeneity exists in the panel's dynamics and error variances, following (Pedroni, 1999, 2004) the heterogeneous panel cointegration test can be used that enables cross-section inter-dependence with multiple effects is used, as shown below:

$$Y_{it} = \alpha_{it} + \delta_i t + \gamma_{1i} E_{it} + \gamma_{3i} K_{it} + \varepsilon_{it}$$

where i = 1,…, N refers to each country in the panel and t = 1,…,T refers to the time period. The parameters α_{it} and δ_i allow for the likelihood of country-specific fixed effects and deterministic trends, respectively. ε_{it} denotes estimated residuals, representing deviations from the long-run relationships. Since all the variables are denoted in natural logarithms, the model's γ^s parameters are referred to as elasticities.

The null hypothesis proposing no cointegration, $\rho_i = 1$ is tested by carrying out the following unit root test on the residuals:

$$\varepsilon_{it} = \rho_{i\varepsilon it-1} + w_{it}$$

There are two sets of cointegration tests, as proposed by Pedroni (1999, 2004). The first set, which is based on the within dimensional approach, consists of four panel cointegration test statistics, i.e., "panel v-statistic, panel ρ-statistic, panel PP-statistic, and panel ADF-statistic". These statistics group the autoregressive coefficients from multiple countries, for the unit root tests on the estimated residuals. The statistics incorporate the cross-country common time factors and heterogeneity. The second set of panels cointegration test is based on the between dimensional approach, which entails three panel cointegration test statistics, i.e. group ρ-statistic, group PP-statistic, and group ADF-statistic. These statistics are derived from the averages of each autoregressive coefficient linked to the residuals' unit root tests for each panel country. The seven tests undergo asymptotic distribution as standard normal.

The proposed test by Kao (1999) is also used in this study, along with those of Pedroni's (1999, 2004). Unlike Pedroni's cointegration tests, Kao's (1999) cointegration test is calculated by pooling all the cross-section residuals in the panel. The test presumes that all the cointegrating vectors in every cross-section are identical. Kao's (1999) test is included in this study to check for robustness in addition to Pedroni's (1999, 2004) tests.

3.4. Panel estimation

The PMG estimator may produce short-run estimations entailing the intercept, the adjustment speed, and heterogeneous error variances. The long-run slope coefficient is homogenous. This method has higher efficiency and consistency in capturing the prevalence of long-run relationships. However, the error correction term's coefficient must be below 2 and negative. Additionally, the estimations must be consistent so that no serial correlations will occur in the residual of the error correction model, leading to exogenous explanatory variables. These requirements can be met by incorporating the lags (p, q) for both the dependent (p) and independent (q) variables. To use this method, the T and N sizes must be large, with T being larger than N. Pesaran et al. (1999) suggested using approximately 20–30 countries for the number of N. Next is the MG estimator as proposed by Pesaran and Smith (1995) which enables single regressions for each country and coefficient. Unlike PMG, this method is not constrained to the procedures for estimators. It can generate various long-run and short-run heterogenous coefficients for each country. Next is the dynamic fixed effect (DFE) estimator, which is very similar to PMG. It renders the vector cointegration coefficient to be similar among all the long-run panels. Besides, it confines the adjustment speed, rendering the short-run coefficient to be the same and permitting the given panel coefficient.

Below is the long-run relationship for the MG model:

$$\ln PD_{it} = \theta_i + \delta_{0i}\, lnPD_{t-1} + \delta_{1i}\, lnVA_{i,t} + \delta_{2i}\, lnPS_{i,t} + \delta_{3i} lnGE_{i,t} + \delta_{4i} lnRQ_{i,t} + \delta_{5i} lnRL_{i,t} + \delta_{6i} lnCC_{i,t} + \varepsilon_{i,t}$$

The long-run relationship for PMG and DFE models is as follows:

$$\begin{aligned}\ln PD_{it} = \mu_i + \sum_{j=1}^{p} \lambda_{ij}\, lnPD_{t-1} + \sum_{j=1}^{q} \delta_{ij}\, lnVA_{i,t-j} + \sum_{j=1}^{q} \delta_{ij}\, lnPS_{i,t-j} \\ + \sum_{j=1}^{q} \delta_{ij} lnGE_{i,t-j} + \sum_{j=1}^{q} \delta_{ij} lnRQ_{i,t-j} \\ + \sum_{j=1}^{q} \delta_{ij} lnRL_{i,t-j} + \sum_{j=1}^{q} \delta_{ij} lnCC_{i,t-j} + \varepsilon_{it}\end{aligned}$$

where the number of countries is $i = 1, 2, \ldots, 6$; the number of periods is $t = \text{January } 2002 - \text{ December } 2018$; j is the optimal time lag; and μ_i is the fixed effect.

Equations 2 and 3 can be reparametrized into an error correction model, which is written as follows:

$$\begin{aligned}\Delta \ln PD_{it} = \mu_i + \varphi_i(lnPD_{t-1} + \lambda_1\, lnVA_{i,t} + \lambda_2\, lnPS_{i,t} + \lambda_3 lnGE_{i,t} \\ + \lambda_4 lnRQ_{i,t} + \lambda_5 lnRL_{i,t} + \lambda_6 lnCC_{i,t}) \\ + \sum_{j=1}^{p} \lambda_{ij}\, lnPD_{t-1} + \sum_{j=1}^{q} \delta_{ij}\, lnVA_{i,t-j} + \sum_{j=1}^{q} \delta_{ij}\, lnPS_{i,t-j} \\ + \sum_{j=1}^{q} \delta_{ij} lnGE_{i,t-j} + \sum_{j=1}^{q} \delta_{ij} lnRQ_{i,t-j} \\ + \sum_{j=1}^{q} \delta_{ij} lnRL_{i,t-j} + \sum_{j=1}^{q} \delta_{ij} lnCC_{i,t-j} + \mu_{it}\end{aligned}$$

3.5. Hausman test

This test is vital for the selection between "PMG or MG and PMG or DFE". In case the null hypothesis for PMG and MG is accepted, PMG will be chosen over MG due to the former's greater efficiency. Otherwise, MG will be chosen over PMG. Further, if the null hypothesis for PMG and DFE is accepted, PMG will be chosen over DFE. Otherwise, DFE will be chosen over PMG.

4. Results and discussion

4.1. Panel root tests

Although the panel ARDL estimation allows a mixture of I(0) and I(1) series in the model, present study performs “panel unit root tests” to ensure that none of the time series is I(2). LLC and IPS unit root tests are carried out to determine the prevalence of data stationarity for the variables of lnVA, lnPS, lnGE, lnRQ, lnRL, lnCC, and lnPD. Hence, the variables’ integration order must be determined in this study. Table 2 presents the test results, which show that lnPD is stationary at level for LLC whilst the rest of the variables (lnVA, lnPS, lnGE, lnRQ, lnRL, lnCC, and lnPD) are non-stationary at level for LLC and IPS. Despite that, all the variables are stationary at first difference for both LLC and IPS, indicating a mixed integration order of (I (I) and I (0)). The panel ARDL is applicable based on the aforementioned findings.

Table 2: Unit root tests

	Levin, Lin & Chu (2002)		**Im, Pesaran & Shin (2003)**	
Level	**Constant**	**Constant & Trend**	**Constant**	**Constant & Trend**
lnPD	-1.8193**	-2.2007**	0.2127	0.3145
lnVA	-2.8128***	-1.6435*	-1.1906	0.4853
lnPS	-1.6957**	-4.0170***	-1.2725	-2.0484**
lnGE	-3.6116***	-3.4424***	-3.3432***	-2.2590**
lnRQ	-3.2083***	-0.7722	-1.7907**	1.2459
lnRL	-2.5213***	-3.8600***	-2.3866***	-2.2379**
lnCC	-3.2897***	-4.4976***	-3.1088***	-2.2869**
1st Difference				
lnPD	-7.2557***	-7.6619***	-6.0684***	-5.5633***
lnVA	-7.9516***	-9.6335***	-6.7158***	-7.0211***
lnPS	-8.1128***	-7.4244***	-6.7812***	-5.3855***
lnGE	-8.8795***	-7.3703***	-7.0078***	-4.8475***
lnRQ	-10.6749***	-14.0451***	-8.2466***	-10.7080***
lnRL	-9.4750***	-8.4720***	-8.0644***	-6.6532***
lnCC	-10.1841***	-8.1487***	-7.8512***	-6.3397***

Notes: Standard errors in parentheses ***$p < 0.01$, **$p < 0.05$, *$p < 0 .1$.

4.2. Panel cointegration tests

Table 3 indicates the “panel cointegration test” estimations for Pedroni (1999, 2004) and Kao (1999). Based on Pedroni’s (1999, 2004) tests, from seven panel cointegration tests, four tests rejected the null hypothesis showing no cointegration at the 5% and 10% significance levels. On the other hand, the null hypothesis of no cointegration was also strongly rejected by Kao’s (1999) residual-based cointegration test, at the 1% significance level. This study, therefore, offers strong proof of cointegration among the series. Therefore, it can be projected that the variables of “voice and accountability, political stability, government effectiveness, regulatory quality, rule of law, control of corruption”, and have long-run relationships with public debt. Ultimately, these results indicate that the country-level institutional quality indicators and public debt have a steady-state relationship.

Table 3: Panel cointegration tests

Pedroni (1999, 2004)				Kao (1999)	
Within dimension		Between dimension			
Test statistics:		Test statistics:		Test statistics:	
Panel v-statistic	-0.8914	Group rho-statistic	2.9789	ADF	-3.2754***
Panel rho-statistic	1.8622	Group PP-statistic	-1.5142*		
Panel PP-statistic	-1.6377*	Group ADF-statistic	-1.5774*		
Panel ADF-statistic	-1.7036**				

Notes: Standard errors in parentheses ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

4.3. Panel ARDL estimations

This study uses DFE, MG, and PMG estimators to determine the relationships between public debt and country-level institutional quality indicators i.e., (voice and accountability, political stability, government effectiveness, regulatory quality, rule of law, and control of corruption).

After estimating the three panel models, this study utilises the Hausman test to determine the best model that suits the nature of the data. Between PMG and DFE, the Hausman test fails to reject the null hypothesis, indicating the preference for the PMG model over the DFE model. Similarly, the Hausman test result for PMG against MG fails to reject the null hypothesis, thereby implying the preference for PMG over MG. Thus, the study proceeds to interpret the result from the PMG estimation.

Table 4 presents the Hausman test results for the DFE, MG, and PMG estimators, which suggest that political stability pose negative long-run effects on public debt. This negative correlation indicates that any percentile rank increase in political stability can lessen long-run public debt, which contradicts the results of Tarek and Ahmed (2017b).

Meanwhile, government effectiveness and the rule of law have long-term and significant positive effects on public debt. Several factors influence government effectiveness and the rule of law, including a lack of regulatory quality and policy implementation. While a lack of government effectiveness and the rule of law stifles investment efficiency, a lack of efficiency in government policies results in erroneous allocations of public resources. As a result, government effectiveness has the potential to strengthen the country through its strong borrowing power, because liberal governments are more likely to honour their debts. According to Schultz and Weingast (2003), countries that exercise their strength in government effectiveness get easy access to credit compared to their non-democratic rivals. The positive association between government effectiveness and public debt is similar to Tarek and Ahmed (2017b).

Government effectiveness and rule of law have positive correlations with the long-run public debt. This positive correlation indicates that any percentile rank increase in government effectiveness and the rule of law can increase the long-run public debt. Hence, the South Asian nations' weak economic performance can be mitigated by utilising public debt more effectively to minimise any unwanted implications on economic growth. Another takeaway from the findings is that sound institutional qualities can facilitate long-term economic growth by lowering debt levels in the South Asian region.

The absence of rule of law is one of the strong predictors of poor governance and a shadow economy. According to Schneider and Enste (2000), sometimes regulatory and bureaucratic protocols are unnecessarily complex and vague to the extent of curbing competition and operation in markets. At the same time, they also provide fertile ground for corrupt activities. In the absence of acceptable procedures, when businesses and individuals find their rights and incentives sinking with contracts violations, they start operating in the informal economy. Further, citizens will also feel defrauded in the face of widespread corruption. They start feeling that their tax money is going into the wrong hands and no accountability and rule of law exists. Friedman et al. (2000) said that once unofficial activities start growing in the market, tax revenues will decrease. It will be difficult to increase or even maintain the tax net when there is a lack of public trust in governance and the rule of law and companies are operating in a shadow economy. Johnson et al. (1997) concurred with this view, saying that “tax evasion by the shadow economy weakens a government’s ability to provide public goods to the official sector”. These public goods are “law and order, effective tax, regulatory institutions and public administration”.

Further, control of corruption is negatively correlated to long-run public debt. This negative correlation indicates that any percentile rank increase in control of corruption can lessen long-run public debt, which contradicts the results of Tarek and Ahmed (2017b). According to Méon and Sekkat (2005), in the presence of political instability, inefficiency, and political conflict, it is difficult to control corruptions over investments, leading to higher debt in the economy. Similarly, Tanzi (1995) said that corruption supports illegitimate leaders who willingly instigate social polarization and organised crime that will damage the business environment. As the lack of control on corruption also negatively impact three fundamental pillars of a country, namely “legislative, executive, and judicial prevalence”. However, it is a big challenge to measure efficiency and effectiveness in public spending due to multiple objectives and unsaleable outcomes in the market. The result states that improved country-level institutional quality can reduce the debt to GDP ratio, indicating that country-level institutional quality negatively affects public debt in South Asian nations.

In summary, the findings for political stability and control of corruption based on PMG are in line with those of DFE. The findings based on DFE demonstrate that political stability and control of corruption are negatively significant variables. Meanwhile, the MG findings show no significant link between country-level institutional quality and long-run public debt. Finally, the findings based on PMG indicate that voice and accountability as well as regulatory quality have no significant effect on long-term public debt.

Table 4: Long-run and short-run estimation results

Variables	(1) DFE	(2) MG	(3) PMG
L.lnVA	0.1637	1.3120	0.1194
	(0.1580)	(0.9395)	(0.0979)
L.lnPS	-0.1446**	0.1205	-0.1849***
	(0.0610)	(0.2023)	(0.0441)
L.lnGE	0.3206	0.3399	0.6705***
	(0.2692)	(0.2862)	(0.1277)
L.lnRQ	0.0856	-0.1331	0.1020
	(0.1574)	(0.3175)	(0.1288)
L.lnRL	0.5261	0.6032	0.2944**
	(0.3493)	(0.6665)	(0.1274)
L.lnCC	-0.1974*	-0.1778	-0.2186***
	(0.1020)	(0.5495)	(0.0294)
Ect	-0.2829***	-0.9365***	-0.3813***
	(0.0698)	(0.1373)	(0.1295)
D.lnVA	0.0297	0.3395	0.1452
	(0.0882)	(0.4117)	(0.1642)
D.lnPS	-0.0364	0.1665	-0.0693*
	(0.0259)	(0.1149)	(0.0415)
D.lnGE	-0.0446	-0.1933	-0.0660
	(0.0912)	(0.3219)	(0.2130)
D.lnRQ	0.0756	0.0225	-0.0326
	(0.0495)	(0.1321)	(0.0697)
D.lnRL	0.1077	0.8700**	0.0858*
	(0.0875)	(0.3622)	(0.0462)
D.lnCC	-0.0373	-0.4439	-0.1755*
	(0.0449)	(0.4728)	(0.1024)
Constant		-2.4157	0.3592***
		(5.0772)	(0.1027)
Observations		96	96
Hausman test	5.6000		2.8900

Notes: Standard errors in parentheses ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

Table 4 also presents the results on the short-term effects based on DFE, MG, and PMG estimators. All three estimators show negatively significant error correction term (ECT) values, confirming the prevalence of short-run correlations. According to the findings based on DFE, country-level institutional quality has no effect on short-term public debt. Meanwhile, the findings based on MG show that voice and accountability, political stability, government effectiveness, regulatory quality, and control of corruption showed no impact on short-term public debt. On the other hand, the only rule of law has a positive significant effect on short-term public debt. Finally, the findings based on PMG show that political stability is significantly and negatively correlated to short-term public debt. In contrast, rule of law is positively related to short-term public debt, which contradicts the findings of Tarek and Ahmed (2017b). Further, the findings based on PMG show that control of corruption is significantly and negatively correlated to short-term public debt.

4.4. PMG cross-section short-run coefficients

Based on the Hausman test results, the PMG estimator is chosen over the others as it can measure the short-term impacts of country-level institutional quality indicators (i.e. voice and accountability, political stability, government effectiveness, regulatory quality, rule of law, and control of corruption) on each of the sampled country's public debt. The results in Table 5 show that voice and accountability have a significant positive effect on short-term public debt for Bangladesh and Sri Lanka. However, the same indicator does not significantly affect the short-term public debt of Bhutan, India, Nepal, and Pakistan. The results also reveal the significance of political stability in reducing short-term public debt for Bangladesh and Sri Lanka, but the same variable has no significant effect for Bhutan, India, Nepal, and Pakistan. Next, government effectiveness has a significant and positive effect on the public debt of Bangladesh and Nepal but a significant and negative effect in the case of Bhutan. Regulatory quality is found to have a significant and positive effect on Bhutan's public debt but no effect for the other countries. Likewise, the rule of law has a significant and positive effect on Pakistan's public debt but no effect on the public debt of the other countries. Finally, control of corruption has a significant and negative effect on public debt in the case of Bangladesh and Sri Lanka.

Table 5: Short-run country-specific results for six South Asian countries

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Bangladesh	Bhutan	India	Nepal	Pakistan	Sri Lanka
ect	-0.9203***	-0.3366**	-0.1189	-0.5903***	-0.1812**	-0.1404
	(0.2026)	(0.1452)	(0.0748)	(0.1959)	(0.0826)	(0.0967)
D.lnVA	0.8763***	-0.3122	0.0581	-0.0348	0.0301	0.2538*
	(0.2819)	(0.2584)	(0.3902)	(0.1520)	(0.1305)	(0.1372)
D.lnPS	-0.2650***	-0.0342	-0.0142	-0.0470	0.0233	-0.0789*
	(0.0500)	(0.1853)	(0.0344)	(0.0917)	(0.0197)	(0.0463)
D.lnGE	0.3899*	-1.0892***	0.0305	0.2054*	0.0788	-0.0115
	(0.2183)	(0.4042)	(0.1093)	(0.1058)	(0.1299)	(0.1258)
D.lnRQ	-0.2034	0.1730***	0.1367	-0.1733	-0.1735	0.0447
	(0.1382)	(0.0558)	(0.0980)	(0.1623)	(0.1306)	(0.1085)
D.lnRL	0.0918	0.2440	0.0459	0.0733	0.1539**	-0.0945
	(0.1211)	(0.7497)	(0.2569)	(0.0857)	(0.0771)	(0.2186)
D.lnCC	-0.1217**	-0.6289	0.0636	-0.0527	-0.0274	-0.2857***
	(0.0533)	(0.4860)	(0.1158)	(0.0817)	(0.0694)	(0.1046)
Constant	0.6741	0.5165*	0.0878	0.5570	0.1744	0.1454
	(0.6445)	(0.2872)	(0.1122)	(0.5158)	(0.1466)	(0.1480)
Observations	96	96	96	96	96	96

Notes: Standard errors in parentheses ***$p < 0.01$, **$p < 0.05$, *$p < 0.1$.

5. Conclusion

The global industrial revolution has brought public debt to the fore as a primary driver of industrial development for both developed and developing economies. However, countries burdened with high debts have been beset by recessions and significant losses, leading to research interest in the factors contributing to high public debt. The current study focused specifically on the factor of country-level institutional quality in the context of South Asian countries, i.e. Bangladesh, Bhutan, India, Nepal, Pakistan, and Sri Lanka over the period from 2002 to 2018. Results of the ARDL panel analysis conducted in this study indicate that political stability, government effectiveness, rule of law, and control of corruption affect long-run public debt in the selected South Asian countries. At the same time, political stability, rule of law, and control of corruption also affect short-term public debt in the same regional context. The majority of past research has provided evidence of the negative effect of poor governance on public debt. However, there is also evidence that poor governance has a positive effect on public debt in the context of ineffective institutions.

Based on the literature review of the institutional factors affecting public debt, it was found that only a few studies had investigated regional differences with even fewer focusing on the trends in the South Asian region. Hence, the present study's findings could be treated as complementary to the literature on the macroeconomic effects of governance and political factors on public debt. Countries in the South Asian region are burdened with massive fiscal and external imbalances caused by major policy challenges (e.g., civil wars, oil price drops, low fiscal revenues and currency shortages, refugee crises, terrorist attacks, regional conflicts, and political shifts due to the Arab Spring). Hence, governments of these countries must ensure the sustainability of their public debt growth rates through good governance. Researchers also need to conduct more empirical studies on regional government performance to facilitate the implementation of good public debt management practices in South Asia.

For the sake of policy implications, present study suggests for the continuous improvements to the governance indicators to ensure significant public debt reductions, particularly in the reviewed countries. Considering that financial stability and economic development go hand in hand with low public debt, good governance is crucial for establishing efficient regulatory frameworks, which in turn facilitate and solidify national economic growth. Towards this end, there is a crucial need to develop clear objectives, consistent policies, and long-run policy frameworks. Also, systematic assessments of the impacts and rules should be put in place to ensure that the objectives set are achieved given today's ever-changing socio-economic landscape. Such actions must be transparent and non-discriminatory.

The policy implications derived from the findings can help reinforce institutional reform agendas towards achieving sustainable growth, particularly in emerging economies. This study's findings also trigger the need for a re-assessment of the notion that the use of financial resources alone is enough to resolve the issue of national economic underdevelopment. Additionally, the findings also serve as a wake-up call to international financial institutions that public debt has higher utility when paired with higher institutional quality.

This study offers policymakers valuable implications for the implementation of sustainable social developments. Governments that misuse public debt systems would impose the burden of accumulative debt repayments on future generations. Despite the importance of public debt in driving economic development, it is equally important to reduce overreliance on public debt due to its long-term detrimental impact on both individual livelihoods and business activities. Policymakers must be made aware that reducing public debt will also mean reducing poverty. High public debt hurts not only the disadvantaged groups but also all income groups in society. Finally, rather than borrowing, policymakers need to harness domestic financial capital to drive private economic sectors. Such a strategy will lead to long-term stability without incurring higher debts in the future.

This study is not free of limitations. It focused on the factors affecting public debt only and did not quantify the effects of public debt on macroeconomic variables such as wages, inflation, and exchange rate fluctuations. The shortcomings of this study open up avenues for further research in the future.

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Economic Independence of Bangladesh: An Empirical Assessment

Iftekhar Mohammad Fakhruddin[1], Mohammad Abdul Hannan Pradhan[2] and Golam M. Mathbor[3]

ABSTRACT

The aim of the study is to measure the degree of economic independence of Bangladesh using time series data from 1990 to 2016. The study uses an economic independence index to quantify its ability to survive unilaterally. Six indicators under the three dimensions underlying economic independence are used. By using highest and lowest historic value of each indicator, it normalizes each indicator. Then, it estimates the composite index using definite weights assigned to each indicator and to each dimension. The degree of index on an average is 0.57 and 0.46 when rice and wheat are taken as the main food, respectively. The estimated value indicates that the country has acquired economic independence moderately. However, the estimated value provides a tool for the government of the country to determine the direction and magnitude of action required to improve its level of economic independence.

ملخص

يتمثل الهدف من الدراسة في قياس درجة الاستقلال الاقتصادي لبنغلاديش باستخدام بيانات السلاسل الزمنية ما بين 1990 و 2016. وتستخدم الدراسة مؤشر الاستقلال الاقتصادي لقياس قدرتها على البقاء بشكل انفرادي. ويتم استخدام ستة مؤشرات في إطار الأبعاد الثلاثة التي يقوم عليها الاستقلال الاقتصادي. وباستخدام أعلى وأدنى قيمة تاريخية لكل مؤشر، فإنها تعمل على

[1]Department of Economics, Shahjalal University of Science and Technology, Sylhet, Bangladesh.
E-mail: iftekharfakhruddin@gmail.com.
[2]Department of Economics, Shahjalal University of Science and Technology, Sylhet, Bangladesh.
E-mail: hannan-eco@sust.edu. (corresponding author).
[3] School of Social Work, Monmouth University, New Jersey, USA.
E-mail: gmathbor@monmouth.edu.

تطبيع كل مؤشر. ثم تقوم بتقدير المؤشر المركب باستخدام أوزان محددة مخصصة لكل مؤشر ولكل بُعد. وتبلغ درجة المؤشر في المتوسط 0.57 و 0.46 عندما يؤخذ الأرز والقمح كغذاء رئيسي، على التوالي. وتشير القيمة التقديرية إلى أن الدولة قد حققت استقلالا اقتصادياً بشكل معتدل. ومع ذلك، فإن القيمة المقدرة توفر أداة لحكومة الدولة لتحديد اتجاه وحجم العمل المطلوب لتحسين مستوى استقلالها الاقتصادي.

ABSTRAITE

L'objectif de l'étude est de mesurer le degré d'indépendance économique du Bangladesh en utilisant des données de séries chronologiques de 1990 à 2016. L'étude utilise un indice d'indépendance économique pour quantifier sa capacité à survivre de manière unilatérale. Six indicateurs sous les trois dimensions qui sous-tendent l'indépendance économique sont utilisés. En utilisant la valeur historique la plus élevée et la plus basse de chaque indicateur, il normalise chaque indicateur. Ensuite, il estime l'indice composite en utilisant des pondérations définies attribuées à chaque indicateur et à chaque dimension. Le degré d'indice est en moyenne de 0,57 et 0,46 lorsque le riz et le blé sont considérés comme l'aliment principal, respectivement. La valeur estimée indique que le pays a acquis son indépendance économique de manière modérée. Cependant, la valeur estimée fournit un outil au gouvernement du pays pour déterminer la direction et l'ampleur de l'action requise pour améliorer son niveau d'indépendance économique.

Keywords: Autarky, Economic independence, Bangladesh, Time series data

JEL Classification: A12, C82, F10, H11, O50

1. Introduction

The vision of decolonization contained the desire to gain economic independence. Sometimes, it is hard to achieve economic independence immediately for any decolonized country (Ramose, 2006). Parliaments and Constitutions are symbols of complete power and authority to carry out decisions on the prospect of the state. The execution of the powers of an authority is determined by whether the authority has the resource capacity. Hence, economic independence implies local ownership of resources and the means of production for the utilization of natural wealth like land, mineral, forestry, solar energy etc. Thus, local ownership of resources or wealth is essential to having the common will of the citizens being expressed through a political authority (Namarong, 2012).

Evidence shows that although some countries entered onto the path of political independence, they did not secure their economic independence. Gradually they became weaker as an independent nation. On the verge of independence, these countries assumed that political autonomy and economic independence go hand in hand (Guevara, 1960). However, the economic benefits of independence, like growth in real GDP that boost up per capita income, are not sometimes seen (Rodríguez-Pose, 2014). Conversely, a number of states have managed to change their economic status from underdeveloped to well-developed countries with high-income and a good quality of life (Kowalczyk, 2017). Trade in goods and services comprise a large portion of their GDP (Leogrande & Thomas, 2002). Moreover, they might move to a market economy (Millar, 2019).

There are a large number of evidences in favor of globalization like increased economic integrity, world trade and enormous wealth. Besides, the globalization has a large risk to promote holistic, sustainable and fair development. The effects of this kind of platform are uneven and allow some countries like the rich and strong to benefit greatly at the expense of others countries like poor and weak. Thus, the globalization is seen as a conquest of one nation by another like inequality between countries, environmental, influence of multinational companies, downfall of local production and industries and job insecurity for local people (Jalil, Islam & Islam, 2020). The recent WTO report says that the globalization makes connected countries more vulnerable to short term shock (Garver, 2021).

There are some practical problems connected with national economic independence, like the national production of economic requirements and access to supplies of essential raw materials (McClure, 1927). Such independence may logically be considered for conserving the national well-being and maintaining a steadily rising standard of living for the masses of the people. For this process, the continuing and securing use of the material things are required. If these material goods are imported, their usage is obviously connected with the open channels of international trade and markets for the exports necessary to pay for imported commodities. Thus, the principle of equality of trade is of the highest importance in the consideration of national economic independence.

Few African countries, like Ghana, Kenya, Zaire, and Nigeria, had much effective control of their economies. At the same time, foreign and alien minority interests were dominant (Beveridge, 1974). Indeed, the policies of the replacement of aliens with locals were seen as a prerequisite to economic independence (Ghai, 1973). Thus, four basic factors were required to be resolved to seek greater economic independence, like inadequate resources to assure basic needs; imposition of economic sanctions; alien rights of a country's useful wealth; and the burden of external debt posing a threat to the country. The more unaffected a state becomes to these weaknesses, the more economically independent it is (Helmy, 2017).

The political independence of developing countries like Bangladesh never assures economic independence or resilience in the face of pressure from stronger political and economic powers. The country achieved political independence about five decades ago. Bangladesh has made significant development supported by sustained economic growth. The GDP per capita was evidenced at $1203.20 in 2018 which is almost double than the previous decade (WB, 2020b). This result indicates the economic benefit of the self-government increases over the years (Rodríguez-Pose, 2014).

Despite being one of the most populous countries in the world, the achievement account of Bangladesh is undeniably notable. The total population was more than 65 million in 1971, with fertility rate 6.9, births per women. In 2020, the total population increased to more than 165 million with the declined fertility rate of 2.0 births per women. This success is even more inspiring given that it was mostly accomplished as the country was in the middle of tackling serious economic and social challenges. With the speed of fertility decline picked up and the increase in GDP per capita, the country reduced the rate of poverty from 44.2 percent to 14.8 percent in 1991 and 2017, respectively (WB, 2020a). The evidence demonstrates that declining fertility rates can develop human capital, diminish the rate of poverty and impel economic augmentation. In the smaller families, parents can endow more resources in health and education of their children. This human capital accumulation can derive economic growth and makes the country wealthier, while combined with policies that create good jobs for large numbers of the working age population (Ashraf & Wilde, 2013). However, the country attained an acceleration of economic growth, agricultural production, the higher rate of import and export growth, stable rise of remittances received, high rate of foreign direct investment and the steady rise of foreign currency reserves, among others, during the past few decades. Besides, the macroeconomic performance was satisfactory, when considered in the context of market-oriented liberalizing policy reforms (Mahmud, 2010). Furthermore, the life expectancy, literacy rates and per capita food production have increased significantly. Rapid growth enabled the country to achieve the lower middle-income country rank in 2015. In 2018, Bangladesh satisfied all three eligibility criteria for graduation from the UN's LDCs list for the first time and is on track for graduation in 2024 (WB, 2020a). On the other hand, based on the recent trend of its macroeconomic performance, the world famous platforms are forecasting that Bangladesh is one of the 5 fastest rising nations on the earth. The country will be the 28th largest economy of the world by 2030 and 23rd largest economy by 2050 (Abdin, 2020).

However, the martyrs of the country laid their life for achieving the political autonomy as well as economic independence. Now it is established that the country has achieved political independence for about five decades.

The country needs to achieve sustainable and inclusive economic growth to survive in the current worldwide economic recession due to pandemic, trade war or other. An integrated effort is necessary to conserve independence and defensive integrity by protecting national maritime; air spaces, including land from where economy acquires its fuel (Roof, 2020).

Thus, the issue of economic independence is increasingly becoming a main concern for policy makers of the country. It can be raised a question whether the country has achieved its economic independence. The objective of this study is to measure and evaluate the recent degree of economic independence of the country. To quantify the economic independence, this study uses the Economic Independence Index developed by Helmy (2017). From a national economic perspective, Helmy (2017) employed three dimensions of economic independence: one meaning of economic independence containing "self-supporting" would mean having sufficient resources to satisfy some basic needs (Dimension 1); "not contingent or influenced by something" would mean the ability of a country to face or survive economic sanctions (Dimension 2); and "not governed by a foreign power or self-governing" would mean a country's control over its domestic assets (Dimension 3). Hence, these three dimensions of the economic independence index carefully confine the explanation of economic independence. For each dimension, Helmy

(2017) selected various indicators based on the country's coverage, measurability and relevance that could best reflect each specific dimension (like food security and energy and fuel security for dimension one, GDP dependence on domestic expenditure and total reserves in months of imports for dimension two, national ownership of productive resources and having a veto right in the UN Security Council for dimension three), then normalized each indicator by identifying and using its highest and lowest goalposts. Finally, a composite index using definite weights assigned to each dimension is estimated.

Considering the existence of democratic government in the country and availability of data for all indicators, this study employed time series data from 1990 to 2016, about three decades, while Helmy (2017) used a short period covering from 2010 to 2013. This study estimates the index using a double indicator for food security, rice first and then wheat, as the people have both items interchangeably and produce them domestically. The findings of the study provide an essential direction to evaluate the extent of government policy needed for achieving economic independence.

The paper starts with an Introduction containing background information followed by giving an overview of the Bangladesh economy in Section 2. Section 3 presents the review of literature. The methodology used is discussed in Section 4. Section 5 demonstrates the findings of the study and the paper ends with a discussion of the finding and conclusion in Section 6.

2. An Overview of Bangladesh's Economy: Some Selected Indicators

To estimate the economic independence index, Helmy (2017) used some macroeconomic indicators, like having adequate assets to meet essential requirements. A country must become at least food-sufficient, like rice or wheat, and energy sufficient, like oil or gas, because a deficiency of these goods would paralyze the country. Thus, main macroeconomic data used to estimate an indicator or a sub-indicator are presented in Table 1. These data provide a general trend of each indicator over the years, which can help to understand how the country steps forward.

The country has extensively enhanced its crop production and almost achieved food autarky. As the size of the economy is growing, the contribution of the agricultural sector in the percentage of GDP is going down over the years, 51% in 1971 and 13% in 2017. The total production of the sector has been ever-increasing yearly (Abdin, 2020). For example, rice production, the main staple food of the Bangladeshi people, increased to more than double in 2016 compared to 1990. The fluctuation of rice production is also noticed in several years. The country needed to import rice to fill the gap between domestic demand and supply. However, the country was able to export for consecutive three years from 2014 to 2016 for the first time in the history of rice production, though the amount was very low (25, 4, 4 respectively, 1000MT). This trend means that the country attained autarky in rice production. In the case of wheat, the second staple food, an opposite scenario was noticed. The import of wheat was greater than production in 1990 (Import and production 1457 and 1004 [1000MT] respectively). However, production of wheat was larger than import from1992 to 1998. Then, import of wheat was more than the production of wheat in a greater amount. The matter of concern is that imports are increasing at a higher rate, whereas production of wheat is almost in constant position from 2012 to 2016. As a whole, the country is producing about 35 million tons of food grain per year to ensure food security of the citizens. This huge food grain production indicates the country is self sufficient in food grain production (Abdin, 2020).

Continuous economic growth of the country has rapidly increased the demand for energy like gas, petroleum and other fuel. Depletion of gas reserves and the dependence on imports are the main two reasons behind the risk to energy security of the country. Firstly, electricity is considered as the most typical form of energy in the country that depends on gas. Due to limited reserve of gas, the economy largely depends on imported petroleum. Secondly, imported petroleum is now affecting foreign exchange reserves. Energy imports in the percentage of energy used in 1990 were 15.52%. It has remained almost the same (16.68%) in 2016, although there were many fluctuations in the net energy import percentage of energy utilization. The remarkable high value of energy imports was 21.59% in 1998, and the historically low value was 12.35% in 2009.

The country’s domestic expenditure is measured by subtracting GDP from the total of exports and imports, which indicates the expenditure made on the territory by its economic agents. Domestic expenditure has increased from 1990 to 2016, whereas the percentage of contribution to GDP has decreased at that time. The amount of domestic expenditure in 1990 was around 25 billion dollars. In 2016, it stood at 133 billion dollars, which was a historic high value. Thus, the bigger GDP dependence on domestic expenditure indicates a country's ability to survive has enhanced. A country can also survive sanctions on its exports or imports if it has adequate amounts of foreign reserves to cover its imports. Thus, a second important indicator is a country's total reserves in months of imports. A total reserve month of import in Bangladesh in 1990 was around for 2 months. Up to 1994, it was increasing and reached to around 7 months of import. However, for the ten years from 2006 to 2016, there was seen fluctuation in the data. In 2016, total reserve months of import were at the historic value of 7.6 months of import, which indicates that reserves are adequate to maintain more than seven months' expenses of imports.

Table 1: Overview of Bangladesh Economy (Some Selected Indicators)

Year	Total reserve (in months)	Rice Production (1000MT)	Rice import (1000MT)	Wheat Production (1000MT)	Wheat Import (1000MT)	GDP dependence on domestic expenditure ($ billions)	Contribution of domestic expenditure in GDP (%)	Energy import (% of energy use)
1990	1.91	17852	11	1004	1457	25.591	80.98	15.52
1991	3.98	18250	39	1065	1457	24.957	80.61	13.6
1992	5.16	18340	10	1176	1051	24.994	78.82	14.24
1993	6.16	18041	100	1131	1065	25.411	76.61	14.55
1994	6.84	16833	1300	1245	707	25.165	74.52	14.77
1995	3.66	17687	1140	1370	1243	26.028	68.6	19.65
1996	2.93	18882	46	1454	957	34.288	73.83	18.95
1997	2.40	19854	1200	1803	839	35.137	72.83	21.59
1998	2.84	23066	2500	1988	2032	35.949	71.91	21.33
1999	2.13	25086	400	1673	1624	36.051	70.31	18.18
2000	1.81	24310	672	1610	1293	36.764	68.88	17.00
2001	1.56	25187	243	1510	1565	36.746	68.05	18.82
2002	2.18	26152	955	1253	1335	38.491	70.33	18.05
2003	2.75	25600	850	976	1945	41.851	69.56	18.47
2004	2.87	28758	725	820	2058	44.406	68.2	16.02

Year	**Total reserve (in months)**	**Rice Production (1000MT)**	**Rice import (1000MT)**	**Wheat Production (1000MT)**	**Wheat Import (1000MT)**	**GDP dependence on domestic expenditure ($ billions)**	**Contribution of domestic expenditure in GDP (%)**	**Energy import (% of energy use)**
2005	2.123	29000	514	740	2034	43.478	62.6	15.04
2006	2.61	28800	769	1200	1731	42.272	58.85	13.72
2007	3.05	31200	2047	849	1500	45.317	56.92	13.63
2008	2.63	31000	732	850	2882	49.071	53.55	12.82
2009	5.06	31700	92	972	3353	60.611	59.14	12.35
2010	4.32	33700	1308	996	3951	65.772	57.05	14.52
2011	2.78	33700	563	996	2039	63.458	49.33	16.53
2012	3.85	33820	35	1260	2725	66.729	50.03	17.79
2013	4.91	34390	780	1280	3354	76.477	50.08	14.97
2014	5.58	34500	1251	1300	3929	92.07	53.25	16.84
2015	6.83	34500	217	1290	4720	112.961	57.9	16.68
2016	7.60	34578	75	1250	5556	133.713	60.39	16.68

Source: Rice productions and imports, wheat productions and imports all are collected from indexmindi (www.indexmundi.com /facts/ bangladesh). GDP dependence on domestic expenditure and total percentage of contribution of domestic expenditure in GDP are calculated by author. Total reserves in the months of imports and energy imports (% of use) data are collected from World Bank data site.

3. Literature review

The independence of a nation expresses as political, economic, cultural and societal independence. Completeness of political independence judges itself in the way that political power is exercised by the citizens of a country. To apply these supremacies, the country must have larger political capital than any other organization, institution or foreign authority. If the citizens of a country have less political capital, the country is not purely a politically independent state. Announcement of liberty and the formation of parliaments are merely symbols of the wish of a state to have complete power and the ability to carry out decisions about the future of their state. Parliaments and Constitutions are symbols of that kind of authority (Namarong, 2012). In addition, the execution of the powers of an authority is determined by whether the authority has the resource capacity. If the authority has its own resources, it exercises its own powers. If the authority controls its own resources and considers its peoples' needs, then it may express the will of the people of its own. However, political power is based upon the ownership of resources. Namarong (2012) argued that economic independence indicates ownership of resources locally and the means of production for the utilization of natural wealth. Thus, local ownership of resources or wealth is essential to having the common will of the citizens being expressed through a political authority. Political independence, however, is founded upon economic independence. Economic independence is a necessary predecessor for the creation of a politically independent nation. A nation for the people and by the people is only possible where the people are in charge of the economy of the nation.

Ramose (2006) argued that the view of the decolonization contained the goal of economic independence. Sometimes, it is hard to achieve economic independence immediately for some decolonized countries. One of the major reasons for the failure to realize the political and moral imperative for economic independence is Nkrumah's thesis that states 'seek the political kingdom first and the rest shall be added unto you'.

McClure (1927) pointed out some of the practical problems thoroughly connected with national economic independence, specifically, national production of economic requirements, and access to supplies of essential raw materials. Such independence can plausibly be considered as based upon the ongoing and securing use of the material things essential for preserving the national safety and maintaining a steadily growing standard of living for the masses of the people. If these material things are imported, their use is obviously connected with the maintenance of open channels of international trade; and of markets for the exports necessary to pay for imported commodities. Thus, the principle of equality of trade is the highest importance in the consideration of national economic independence.

Beveridge (1974) mentioned that few African countries like Ghana, Kenya, Zaire, Nigeria had much effective control of their economies. At the same time, foreign and alien minority interests were dominant. The policymakers had announced policies aimed at increasing indigenous control of the economy. Such policies and programs were seen as an affirmation of economic independence. In fact, the policies of the replacement of aliens with locals were seen indeed as a prerequisite to economic independence (Ghai, 1973).

Guevara (1960) pointed out that Cuba achieved its political independence first. Subsequently, it started to win economic independence. In the colonial period, Cuba was a model as a monocultural export economy, dependent upon the production of one primary commodity, sugar, for sale to one principal trade partner, the former USSR. After four decades, Leogrande and Thomas (2002) examined Cuba's post-1959 mission of economic independence and reported that the government's initial accomplishment proved untenable in the 1980s as the structural factor led Cuba into dependence on sugar and on one principal trade partner. Subsequently, Cuba attempted to include its economy into the global market in the aftermath of the Cold War by exporting sugar, nickel ore, biotechnology or tourist service. At the beginning of the current century, for the first time in its history, it faced the world market without a benefactor. As a small country, the contribution of trade in goods and services of Cuba comprised a large portion of its GDP. During the turn of the twenty-first century, Cuba has been read as one of the last sites of resistance to neoliberalism and globalized capitalism. Moreover, it has moved to a market economy (Millar, 2019).

Rodriguez-Pose (2014) provided evidence, from the former Yugoslav republics, that the economic benefits of self-government, like growth in real GDP, were nowhere to be seen. On the other hand, a number of the former socialist states in Europe were able to change their economic status from underdeveloped to well-developed countries with high-income and a good quality of life (Kowalczyk, 2017).

Helmy (2017) identified four crucial issues supporting a state's economic dependence and attempted to search for greater economic independence. They are: inadequate resources to assure essential requirements, imposition of economic sanctions, foreign ownership of a country's productive resources, and the burden of external debt posing a threat to the country. The more unaffected a state becomes to these weaknesses, the more economically independent it is. In addition, Helmy (2017) discussed three different definitions of economic independence: self-supporting, not contingent and self-governing. Three dimensions were set based on these definitions. He argued that these three dimensions of the economic independence index safely capture the interpretations of economic independence. Subsequently, the indicators were selected to quantify best each specific dimension, like food security, energy and fuel security, for having sufficient resources for basic needs. Then each indicator is normalized by using its highest and lowest historic goalposts. Finally, using specific weights assigned first to each indicator and second to each dimension, composite index for economic independence was estimated for 112 countries. In addition, Helmy's (2017) study contributes a test to such countries on where they stand economically with flexibility and how much risk they face if they were to stand unaided economically, or practice policies that are uninvited from the perspective of economically more powerful countries.

4. Data, Variables and Analysis Technique

4.1. Data Source

National ownership of domestic resources is one component of economic independence. It is measured by gross national income (GNP) divided by gross national product (GDP). For other components, total reserve (in month), total rice and wheat production and import and energy import are used to measure economic independence index. Time series data are chosen for this study from 1990 to 2016. Data are taken from World Bank (WB) website and indexmundi website.

4.2. Economic Independence Index

Six indicators for three dimensions are used to measure economic independence index. Three dimensions are: 1) Aggregate self- sufficiency indicator (ASSS), 2) Economic sanctions resilience sub-indicator (ESRS), 3) Self-governance sub-indicator (SGS) or National control sub-indicator (NCS). Each dimension has two categories. Firstly, Aggregate self - sufficiency indicator (ASSS) is classified into adapted cereal import dependency ratio (ACIDR) and adapted energy import dependency ratio (AEIDR). Secondly, economic sanctions resilience sub-indicator (ESRS) is categorized into GDP dependence on domestic expenditure and total reserves in months of imports. Thirdly, self-governance dimension, denoted by national control sub-indicator (NCS) is broken down into national ownership of productive resources and having veto rights in the UN Security Council. For normalization of the indicators, historic maximum and minimum value are chosen as goalposts (Commission, 2008; Helmy, 2017).

According to Helmy (2017), Y(c) is the composite index for the country (c), I (q , c) is the normalized sub indicator (q) for country c, W(q) is the weight assigned to each sub indicator and x(q, c) is the actual value of the indicator (q) for country c. The combined index is written as follows:

$$Y_C = \sum_{q=1}^{Q} I_{q,c} W_c \quad Where, I_{q,c} = \frac{x_{q,c} - minimum(x_q)}{Maximum(x_q) - minimum(x_q)} \qquad (1)$$

Higher value represents a better degree of independence. The indicator for where higher value implies lower levels, the calculated value is deducted from one since subtracting the result from 1 produces the same result which uses the inverse of the equation 1 (Helmy, 2017).

Helmy (2017) measured self-sufficiency by creating aggregate self-sufficiency sub indicator (ASSS). The ASSS is created by assigning 50 percent weight to each indicator; adapted cereal import dependency ratio (ACIDR) and adapted energy import dependency indicator (AEIDR). Adapted cereal import dependency ratio shows the food security of a country. Here we take rice or wheat instead of cereal. So it becomes adapted rice import dependency ratio (ARIDR) and adapted wheat import dependency ratio (AWIDR). It is computed by the ratio of net rice(or wheat) import and total rice (or wheat) demand, i.e. (rice or wheat production + rice or wheat imports). Zero for all negative values, as exporters do not face any threat. To do normalization procedures, we go through the following formula:

$$Normalization\ of\ adapted\ cereal\ import\ ratio = \frac{(maximum - x)}{Maximum - minimum)} \tag{2}$$

Maximum value is 1 and the minimum value is 0. Index ranges between zero and one. A higher value indicates that countries are more economically independent.

Adapted energy import dependency ratio (AEIDR) shows energy and fuel security. Net energy imports (% of energy use) are used as representation of adapting energy import dependency ratio. Net energy import (% of energy use) is defined as energy use less production. All negative values will be considered as zero value; as such, exporters do not face any threat. Normalization procedure is same as mentioned earlier. Index value will be found between 0 and 1. The higher value is a sign of higher economic independence.

Helmy (2017) suggested that economic sanctions resilience sub-indicator (ESRS) represents “non-contingency” - ability to survive economic sanctions. A country’s ability to survive economic sanction depends on ‘GDP dependence on domestic expenditure’ and ‘Total reserves in months of imports’. Two indices are assigned with 50-percent weight to create economic sanctions resilience sub-indicator (ESRS).

GDP dependence on Domestic Expenditure measures the degree of openness in the economy. It is measured by the following formula

$$\text{GDP dependence on Domestic Expenditure} = \frac{(Export, X + Import, M)}{GDP} \tag{3}$$

Maximum value is seen as 458.33% in Hong Kong, whereas minimum value is found as 1.86 % in Somalia. To measure the level of closeness rather than openness and to make a higher value better, normalization measure is used as follows:

$$Level\ of\ closeness = \frac{(Maximum\ value - X)}{Maximum\ value - minimum\ value} \quad (4)$$

Total Reserves in Months of Imports are used as an indicator of survival sanction. Helmy (2017) argued that if there are enough amounts of foreign reserves to cover its imports, then a country will survive sanction on its imports and exports. Normalization is done by using the following formula:

$$Survival\ sanction = \frac{(x - minimum\ value\ )}{(Maximum\ value - minimum\ value)} \quad (5)$$

Maximum value is 79.237 found for Libya, 79 months of imports, and minimum value is 0.016 for Luxembourg. However, two indicators of national control sub-indicator (NCS) are used to represent self-governance of a country's economy. One is national ownership of productive resources. Another is having the veto right in the UN Security Council. First is assigned with 80% weight, and second one is assigned with 20% weight.

National Ownership of Productive Resources indicator is equal to GNP/GDP. Maximum value is 4.94 for Timor-Leste, minimum value is 0.441 for Equatorial Guinea. Normalization is done by using the following formula:

$$Ntional\ Ownership\ of\ Productive\ Resources = \frac{(x - minimum\ value\ )}{(Maximum\ value - minimum\ value)} \quad (6)$$

Having Veto Right in the UN Security Council is not required in this study, as Bangladesh has no veto right in the UN Security Council. Thus, the final indicator for economic independence is measured by the following as used by Helmy (2017):

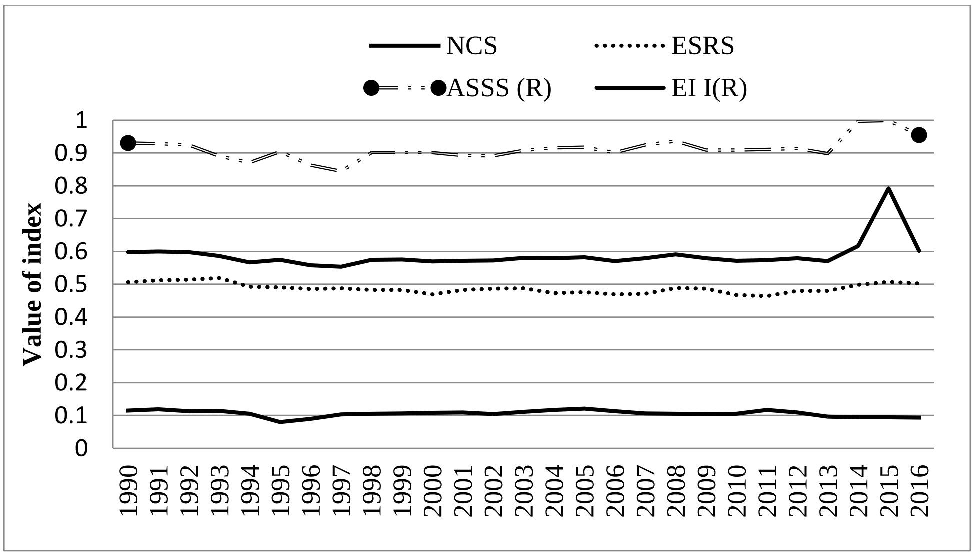
$$
\begin{aligned}
&\textit{Economic Independence Index}\\
&= 0.4[\text{adapted self sufficiency sub} - \text{indicator (ASSS)}]\\
&+ 0.4[\text{Economic sanctions resilience sub} - \text{indicator (ESRS)}]\\
&+ 0.2[\text{national control sub}\\
&- \text{indicator (NCS)}] \qquad (7)
\end{aligned}
$$

5. Findings of the study

5.1. Economic Independence Index for Bangladesh

Economic Independence Index (EII) of Bangladesh from 1990 to 2016 is on an average 0.57 when rice is taken as main food criteria portrayed in Figure 1 [Detail Economic Independence Index of Bangladesh by year is given in Appendix A]. Adapted self sufficiency composed of adapted rice import dependency ratio and adapted energy import dependency ratio is on average 0.90. Economic resilience sanction sub-indicator which is composed of GDP dependence on domestic expenditure and total reserves in months of import is on average 0.48. Self-governance sub-indicator, composed of national ownership of productive resources and having veto rights in the UN Security Council, is on average 0.10.

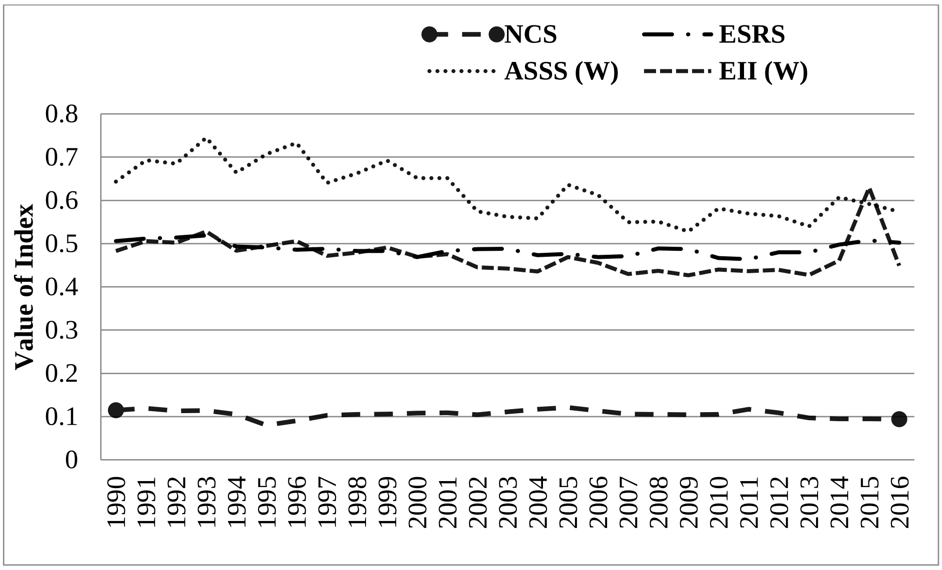
Figure 1: Economic Independence Index (Rice as Main Staple Food)



Source: Authors' calculation

From 1990 to 2016, the economic independence of Bangladesh is on average 0.46 when wheat is considered as main food criteria shown in Figure 2. Adapted Self-Sufficiency Sub-Indicator is on average 0.61 which is measured from adapted wheat sufficiency indicated and adapted energy import dependency ratio. The rest of the two sub-indicators (economic resilience sub-indicator and self-governance sub-indicator) are of the same value as mentioned above.

Figure 2: Economic Independence Index (Wheat as Main Staple Food)



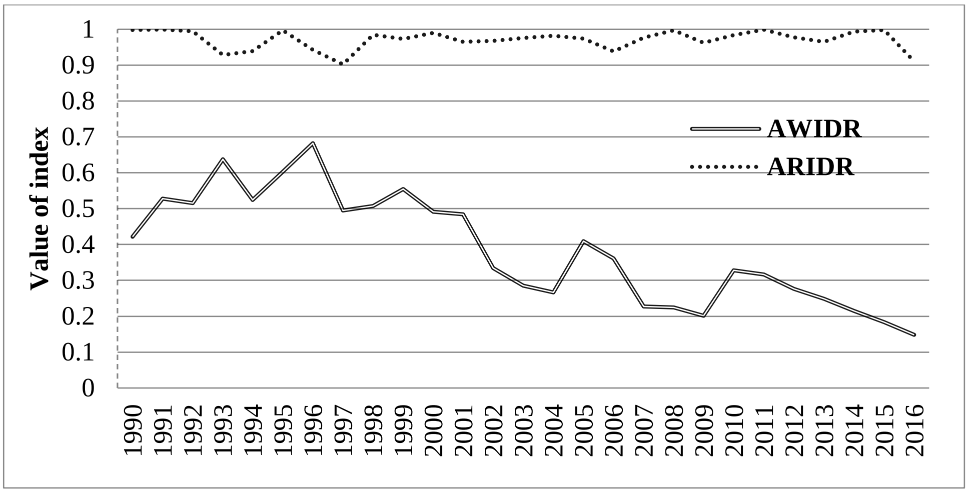
Source: Authors' calculation

5.2. Adapted Self-Sufficiency Sub Indicator (ASSS)

5.2.1. Adapted Food Import Dependency Ratio (ARIDR and AWIDR)

From 1990 to 2016, the value of ARIDR was 0.97 on an average shown in Figure 3, which indicates production was always in the self-sufficient level and import was decreasing over the years. There is some fluctuation but they were never lower than 0.9. Considering AWIDR, the calculated value was on average 0.39. Lower value indicates that dependency on wheat import was remaining and increasing.

Figure 3: Adapted Food Import Dependency Ratio for Bangladesh

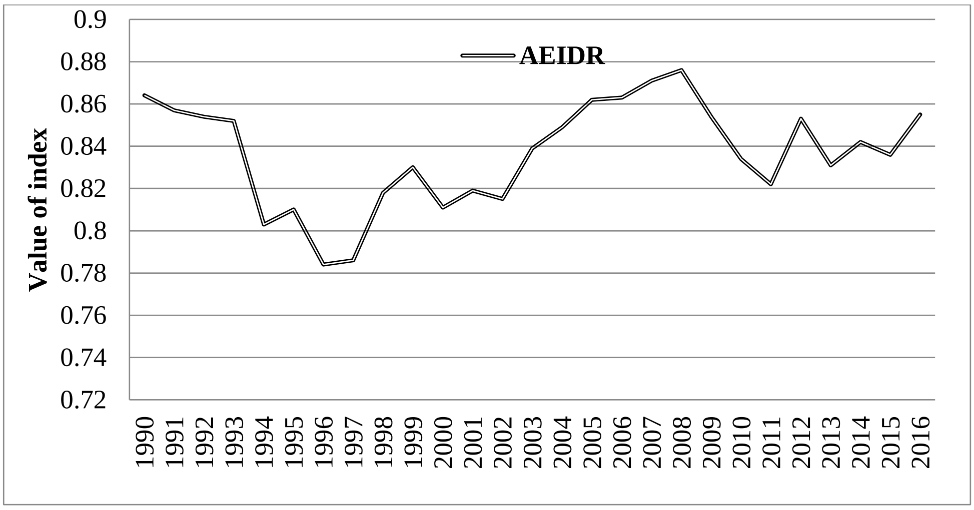


Source: Authors' calculation

5.2.2. Adapted Energy Import Dependency Ratio (AEIDR)

The calculated value of AEIDR was 0.83 on average during the sample period. The natural gas reserve was supporting its energy security, but the result shown in Figure 4 portrayed a lot of fluctuation. However, the energy security never went down below 0.75.

Figure 4: Adapted Energy Import Dependency Ratio (AEIDR)



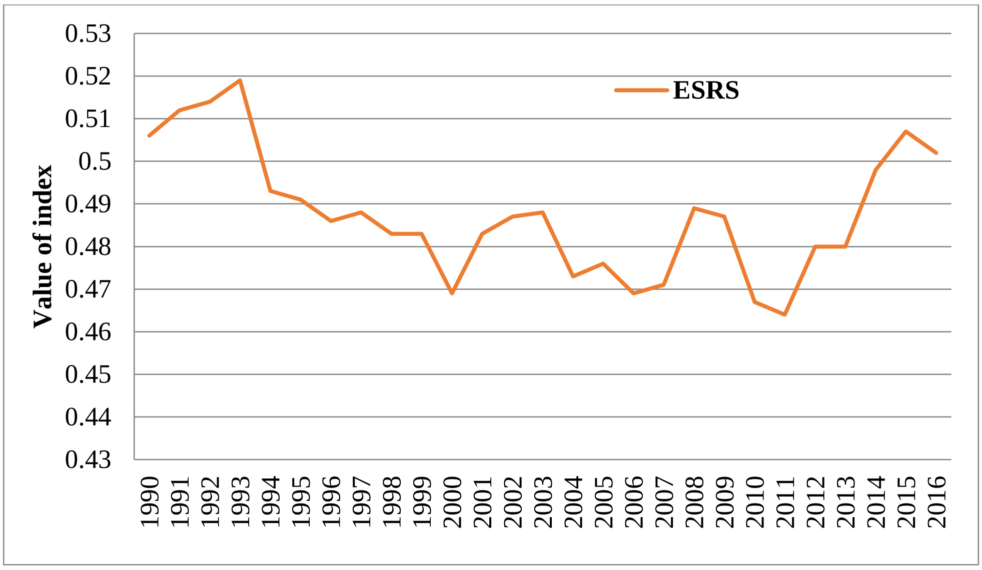
Source: Authors' calculation

5.3. Economic Sanctions Resilience Sub-Indicator (ESRS)

5.3.1. GDP Dependence on Domestic Expenditure

GDP dependence on domestic expenditure indicates average closeness for Bangladesh. The estimated value is 0.92, which means the country is in good position. The estimated value started from 0.96 (1990), and it reached to 0.90 in 2016, as shown in Figure 5. The values indicate that Bangladesh economy is integrating with world economy slowly. Compare to Hong Kong's openness degree (458% of GDP), Bangladesh's vulnerability risk is low (34% of GDP on an average).

Figure 5: Level of closeness for Bangladesh

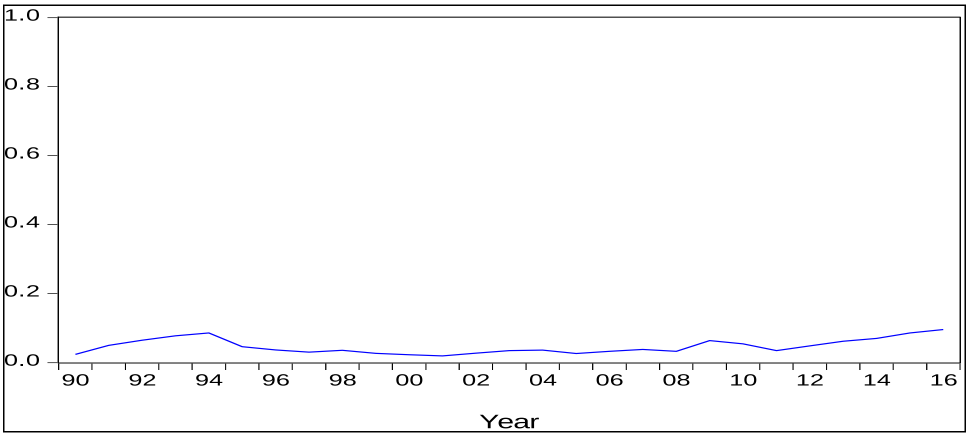


Source: Authors' calculation

5.3.2 Total Reserves in Months of Import

The estimated result shown in Figure 6 lies between 0.02 (1990) to 0.09 (2016). The result indicates that the country usually has reserves for 2-9 months. The country is in poor position comparing similar countries like Libya, which has seventy nine (79) months of reserve.

Figure 6: Normalization of Total Reserve in the Months of Import



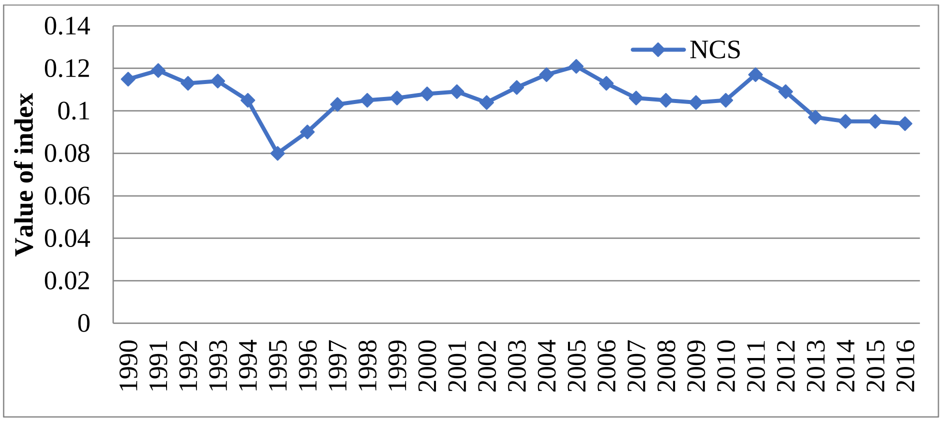
Source: Authors' calculation

5.4. Self-Governance Sub-Indicator or National Control Sub-indicator (NCS)

5.4.1. National Ownership of Productive Resources

The estimated value for national ownership of productive resources which is denoted by National Control Sub-Indicator (NCS) is 0.133 for the time period from 1990 to 2016 as shown in Figure 7. The estimated value of this sub-indicator has gone through a lot of fluctuation starting from 0.13 (1990) to reach at 0.11(2016). The maximum value in the world is found in Timor-Leste, which is 4.94.

Graph 7: Normalization of Ownership of National Resources



Source: Authors' calculation

6. Discussion and Conclusion

The estimated results of the economic independence index reveal the degree of economic independence. By breaking the index down to its components, these can be used to identify weaknesses of a country's economic independence, self-sufficiency, non-contingency and self-governance. A country which scores low on the index can be treated as economically vulnerable because it is energy-dependent, has low levels of foreign reserves, and broadly relies on trade related to other sectors of its economy (Helmy, 2017). The estimated value of adapted self - sufficiency sub-indicator (ASSS) for Bangladesh is 0.97 while rice is considered as a staple food and 0.39 if wheat is treated as chief food. This value of ASSS is higher than Helmy's estimation (2017) because the sample period of this study was larger. The estimated value of Economic Sanctions Resilience Sub-Indicator (ESRS) and National Control Sub-Indicator (NCS) is similar as Helmy (2017) found. However, in the case of wheat production, the country is largely dependent on imports. Energy import remains constant around 15%. The GDP dependence on domestic expenditure has decreased from 1990. Total foreign reserves increased, but a lot of fluctuation is being observed. National ownership of domestic resources was more volatile over the years, and more recently, it tends to fall. The degree of economic independence index on an average is 0.57 when rice is taken as the main food. The estimated value indicates that the country has acquired economic independence moderately. This value is very close to Helmy's (2017) finding (0.56). In addition, the country's economic independence is similar to Nepal (0.573), India (0.559) and Pakistan (0.566).

After achieving political independence in 1971, Bangladesh is self-independent in food production now. Energy security may be fallen in question in the near future. GDP dependence on domestic expenditure has decreased during the sample periods. Total reserves in months of import and national ownership of domestic expenditure have gone through fluctuations that would be alarming in the case of economic sanctions and desire to self-govern situations. Therefore, the relative roles of market and government are important. The classical approach in economics argues for market economy that achieves an optimal allocation of productive resources under certain conditions about market structure and information. Thus we require to open the country's economic gates to manage and influence own advantages of all productive resources.

Dependence largely on trade may cause an economic risk for the country if the country's bargaining power is weak or the country is unable to gain comparative advantages. Sometimes trading partners may decide to punish the country for several superficial offenses by totally or partly impeding to trade with it. This kind of economic risk is required to evaluate frequently so that the country could change its policies as the country is not independent to meet its essential requirements for all kinds of foodstuff and energy.

The government intervention might necessitate allocating productive resources efficiently as some misallocations generate from inefficiencies, externalities and market failures. Subsidizing agriculture production towards food security, increasing remittances earning from exporting human capital to invest and increase national wealth and mitigate financial shocks, pursuing multinational corporations (MNCs) to ensure maximum gain and increasing ownership in sea resources might be a priority for the country toward economic independence.

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Appendix A: Economic Independence Index of Bangladesh

Year	NCS	ESRS	ASSS (W)	ASSS (R)	EI (W)	EI (R)	AWIDR (W)	ARIDR	AEIDR
1990	0.115	0.506	0.6431	0.9309	0.4826	0.5977	0.4222	0.9978	0.864
1991	0.119	0.512	0.6928	0.9285	0.5057	0.6000	0.5280	0.9994	0.857
1992	0.113	0.514	0.6847	0.9244	0.5020	0.5979	0.5150	0.9944	0.854
1993	0.114	0.519	0.7450	0.8903	0.5284	0.5865	0.6378	0.9283	0.852
1994	0.105	0.493	0.6639	0.8714	0.4837	0.5667	0.5243	0.9394	0.803
1995	0.08	0.491	0.7067	0.9040	0.4951	0.5740	0.6030	0.9975	0.810
1996	0.09	0.486	0.7332	0.8635	0.5057	0.5578	0.6824	0.9430	0.784
1997	0.103	0.488	0.6406	0.8444	0.4720	0.5535	0.4945	0.9022	0.786
1998	0.105	0.483	0.6628	0.9012	0.4793	0.5747	0.5074	0.9843	0.818
1999	0.106	0.483	0.6922	0.9015	0.4913	0.5750	0.5545	0.9731	0.830
2000	0.108	0.469	0.6514	0.9011	0.4697	0.5699	0.4910	0.9904	0.811
2001	0.109	0.483	0.6518	0.8921	0.4757	0.5718	0.4841	0.9647	0.819
2002	0.104	0.487	0.5747	0.8915	0.4454	0.5722	0.3341	0.9678	0.815
2003	0.111	0.488	0.5623	0.9076	0.4423	0.5804	0.2849	0.9754	0.839
2004	0.117	0.473	0.5581	0.9160	0.4358	0.5790	0.2667	0.9825	0.849
2005	0.121	0.476	0.6361	0.9183	0.4690	0.5819	0.4094	0.9739	0.862
2006	0.113	0.469	0.6125	0.9010	0.4552	0.5706	0.3614	0.9384	0.863
2007	0.106	0.471	0.5497	0.9243	0.4295	0.5793	0.2277	0.9769	0.871
2008	0.105	0.489	0.5506	0.9368	0.4368	0.5913	0.2247	0.9971	0.876
2009	0.104	0.487	0.5280	0.9087	0.4268	0.5790	0.2013	0.9626	0.854
2010	0.105	0.467	0.5814	0.9091	0.4403	0.5714	0.3281	0.9835	0.834
2011	0.117	0.464	0.5691	0.9105	0.4366	0.5732	0.3161	0.9989	0.822
2012	0.109	0.48	0.5632	0.9140	0.4391	0.5794	0.2762	0.9778	0.853
2013	0.097	0.48	0.5401	0.8983	0.4274	0.5707	0.2486	0.9650	0.831
2014	0.095	0.498	0.6073	0.9968	0.4611	0.6169	0.2146	0.9937	0.842
2015	0.095	0.507	0.5918	0.9989	0.6295	0.7923	0.1836	0.9978	0.836
2016	0.094	0.502	0.5741	0.9553	0.4492	0.6017	0.1483	0.9107	0.855

Note: NCS= National Control Sub -indicator, ESRS=Economic Sanctions Resilience Sub-indicator, ASSS(W)=Adapted Self-Sufficiency Sub-Indicator (wheat), ASSS(R)=Adapted Self-Sufficiency Sub Indicator (rice), EI(W) =Economic Independence (Wheat), EIR=Economic Independence (Rice) AWIDR= Adapted Wheat Dependency Ratio, ARIDR= Adapted Rice Import Dependency Ratio, AEIDR=Adapted Energy Import Dependency Ratio.

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Malay Entrepreneurs' Narrative of Government Business Support Services (GBSS) Through the Approach of Phenomenology

Mohd Hadri Mohd Rifin[1], Novel Lyndon[2], Azlina Abdullah[3] and Kwok Chin Hoe[4]

ABSTRACT

The main objective of this study is to explore the factors that made it difficult for Malay entrepreneurs to obtain assistance from the government. The study used the phenomenological approach because it focused on the worldview of the entrepreneurs themselves in describing the phenomenon. Data were collected through in-depth interviews and non-participant observation. Results of the study showed that there are two main factors which made it difficult for Malay entrepreneurs to accept the assistance provided by the government. The first factor is the attitude of the Malay entrepreneurs themselves. The second factor concerns the lack of understanding between the Malay entrepreneurs and the government agencies at the implementation stage where the lack of expertise and knowledge among the government staff, the lack of response and feedback from the government, the bureaucratic attitude, political influence, and government policies that do not favour the Malay entrepreneurs all contribute to the difficulty in accepting government assistance.

[1] Center for Research in Development, Social and Environment, Faculty of Social Sciences and Humanities, Universiti Kebangsaan Malaysia
E-mail: hadririfin@gmail.com
[2] Center for Research in Development, Social and Environment, Faculty of Social Sciences and Humanities, Universiti Kebangsaan Malaysia
.E-mail: novel@ukm.edu.my
[3] Center for Research in Development, Social and Environment, Faculty of Social Sciences and Humanities, Universiti Kebangsaan Malaysia
E-mail: azlina_ab@ukm.edu.my
[4] Center for Research in Development, Social and Environment, Faculty of Social Sciences and Humanities, Universiti Kebangsaan Malaysia
E-mail: chinhoekwok@gmail.com

ملخص

يتمثل الهدف الرئيسي من هذه الدراسة في استكشاف العوامل التي جعلت من الصعب على رواد الأعمال الماليزيين الحصول على المساعدة من الحكومة.وقد استخدمت الدراسة النهج الفينومينولوجي لأنه يركز على النظرة العالمية لأصحاب المشاريع أنفسهم في وصف الظاهرة. وتم جمع البيانات من خلال المقابلات المتعمقة وملاحظات الأطراف غير المشاركة. وأظهرت نتائج الدراسة أن هناك عاملين رئيسيين جعلا من الصعب على رواد الأعمال الملاويون قبول المساعدة المقدمة من الحكومة. ويكمن العامل الأول في موقف رجال الأعمال الملاويون أنفسهم. ويتعلق العامل الثاني بعدم التفاهم بين رواد الأعمال المالاويون والوكالات الحكومية في مرحلة التنفيذ حيث يوجد نقص على مستوى الخبرة والمعرفة بين موظفي الحكومة، ونقص الاستجابة والتجاوب من الحكومة، والموقف البيروقراطي، والتأثير السياسي، والسياسات الحكومية التي لا تحابي رواد الأعمال الملاويون وتساهم جميعها في صعوبة قبول المساعدة الحكومية.

ABSTRAITE

L'objectif principal de cette étude est d'explorer les facteurs qui ont rendu difficile pour les entrepreneurs malais l'obtention d'une aide du gouvernement. L'étude a utilisé l'approche phénoménologique car elle s'est concentrée sur la vision du monde des entrepreneurs eux-mêmes pour décrire le phénomène. Les données ont été recueillies par le biais d'entretiens approfondis et d'observations non participantes. Les résultats de l'étude ont montré qu'il existe deux facteurs principaux qui rendent difficile l'acceptation par les entrepreneurs malais de l'aide fournie par le gouvernement. Le premier facteur est l'attitude des entrepreneurs malais eux-mêmes. Le deuxième facteur concerne le manque de compréhension entre les entrepreneurs malais et les agences gouvernementales au stade de la mise en œuvre, où le manque d'expertise et de connaissances du personnel gouvernemental, l'absence de réponse et de retour d'information de la part du gouvernement, l'attitude bureaucratique, l'influence politique et les politiques gouvernementales qui ne favorisent pas les entrepreneurs malais contribuent tous à la difficulté d'accepter l'aide gouvernementale.

Keywords: Malay Entrepreneurs, Government Support, Rational Choice Theory, Small and Medium Enterprises

JEL Classification: C23, R41 (up to 5 codes)

1. Introduction

In July 2019, the government of Malaysia introduced the National Entrepreneurship Policy 2030 (DKN2030) by sharing the concept of wellbeing to increase the number of qualified, viable, and resilient entrepreneurs as well as to enhance the capability of local entrepreneurs especially *Bumiputera* (native) entrepreneurs. Entrepreneurship is recognised as a key contributor to the economic development of the country and the wellbeing of the society, with entrepreneurs playing an essential role through the entrepreneurial activities which create job opportunities, innovation, and increase in productivity for the community members (Păunescu & Molnar, 2020). The field of entrepreneurship has the potential to contribute to the nation's socioeconomic development and productivity. A more equitable distribution of income will increase the standard and quality of life of the people, and this in turn, brings social benefits to the society. Sustainable economic development can be promoted through an innovative and creative entrepreneurial nation as well as through new economy and digital economy (Malaysia, 2019). To create successful and competitive entrepreneurs, various programmes have been organised by the government (Yusoff & Yaacob, 2010). The government has focused on the field of entrepreneurship through the New Economic Policy (1971-1990), the National Development Policy (1990-2000), the National Vision Policy (2001-2010), and the New Economic Model (2011-2020). Entrepreneurship has also been identified as one of the national priority areas under the Eleventh Malaysia Plan (RMKe-11). Therefore, the field of entrepreneurship is a key component and a strategic step for Malaysia to achieve the status of a developed and prosperous nation in 2030.

Various efforts have been implemented by the government to assist entrepreneurs especially Malay entrepreneurs in doing business in various sectors including agriculture, plantation, livestock, industry and fisheries. The involvement of the government through various ministries and agencies has resulted in the creation of a wide range of entrepreneurship programmes that covers the initial stage of starting the business to the stage of retaining the business in the market. According to the National Entrepreneurship Policy, to date, there are 14 ministries and more than 60 government agencies that are responsible for coordinating the entrepreneurship development programmes in this country. Based on the SME Integrated Action Plan (SMEIPA) report, 153 entrepreneurship development programmes have been introduced, involving a total of RM13.7 billion and a total of 637,808 beneficiaries (Malaysia 2020).

The diversity of the entrepreneurship development programme implemented is aimed at supporting the development of entrepreneurs by creating resilient and sustainable enterprises. The aim is to optimise performance and create opportunities for the entrepreneurs to grow and develop their business through market expansion, innovation, and increased productivity. The programmes offered can be categorised according to several areas of focus. Such areas of focus include financing, research grants, training and capacity building, infrastructure, business premises and equipment, technology, market access, social enterprise, and internationalisation. Among the government agencies involved in realising the goals of the National Entrepreneurship Policy 2030 are *Majlis Amanah Rakyat* (People’s Trust Council), Business Entrepreneur Group Economic Fund (TEKUN National), National Institute of Entrepreneurship (INSKEN), SME Corp., SIRIM Berhad, and various others (Malaysia, 2019).

However, the findings from studies conducted by Malaysian researchers indicated that Malay entrepreneurs do not seem to fully utilise the assistance provided by the government (Nor Hakimin Yusoff & Anwar Zainol, 2014; Shamsuddin et al., 2017; Shamsuddin et al., 2020; Yusoff & Yaacob, 2010). Nonetheless, there is still a lack of in-depth research examining the rejection factors of government business support services especially from the perspective of the worldview of the Malay entrepreneurs themselves. Therefore, to unravel the questions surrounding the rejection of government’s business support services from the worldview of the Malay entrepreneurs, an in-depth study using in-depth interview method should be carried out to explain the social phenomenon at the micro level (Malay entrepreneurs) and its relationship at the macro level (government institution). This is in line with the essence of the rational choice theory operating at the individual or micro level as the foundation or basis to explain the macro level phenomenon described by Coleman. Thus, the objective of this study is to identify and analyse the factors of rejection of government business support services among the Malay entrepreneurs. This study aimed to examine if each action and decision made by the Malay entrepreneurs is influenced by rational choice, focusing on costs and advantages of each decision taken in business.

2. Literature Review

The field of entrepreneurship requires entrepreneurs to confront and deal with challenging environments. Entrepreneurs need to identify the resources that can be utilised for business activities. Limited skills, knowledge and capital make it difficult for entrepreneurs to develop and expand their business. One of the reasons for SME entrepreneurs to continuously lack technical skills in conducting business is the lack of external support (Mole et al., 2017). Therefore, entrepreneurs need to seek business support from various sources such as business support services from the government or private sectors. Keeble et al. (1991) defined business support as all activities that provide expertise and services to an organisation and business. Services include those that begin from the production of a product up to the services of expertise covering aspects of accounting, marketing research and organisational management activities that involve the government and private sectors. Entrepreneurs can seek business support advice and assistance from the business network in the form of financial advice, financial management advice and business advice. At the same time, this could also help entrepreneurs who are facing problems in business. The frequency of seeking business support such as financial advice is crucial for business growth and it significantly improves the performance level of small and medium enterprises (SMEs) (Grimmer et al., 2017; Park et al., 2020). The viability and sustainability of a business does not just depend on financial support factors alone; entrepreneurs also need to prepare themselves by improving their knowledge and functional skills in managing a business (Yusoff et al., 2021; Yusoff et al., 2018) by utilising government business support services that can improve their skills, knowledge, and capability (Shamsuddin et al., 2020). This is because business support is assistance that comes from an individual or organisation that has the advantage and capability to assist entrepreneurs improve their business activities (operation, management, marketing and so on) with the aim of developing the business and its potential to compete in the market.

Entrepreneurship is recognised as a key contributor to the economic development of a country and the wellbeing of the society, with entrepreneurs playing an essential role in creating job opportunities, innovation, and increase in productivity for the community members through the entrepreneurial activities (Păunescu & Molnar, 2020). Therefore, due to this significant economic contribution, governments consistently support business ventures by providing assistance (financial and non-financial) as well as improving, promoting and providing training to SMEs with the hope that the SMEs would progress and the business would develop (Hong & Lu, 2016; Wren & Storey, 2002). Berry et al. (2006) explained that business assistance has a positive impact on the growth rate of SMEs. Meanwhile, Xiao and Fu (2009) clarified that contributions from professional and quality government employees as well as network and references (verbal) from the government are of great help in business. This is supported by Eberhard and Craig (2013) who remarked that establishing a formal network through cooperation with the government can help in bringing the business to the level of the international market.

Nevertheless, previous studies have revealed that entrepreneurs prefer to seek financial assistance from close individuals such as family members, friends, and other informal sources rather than seeking financial support assistance from the government (Elston et al., 2016; Staniewski et al., 2015; Stevenson et al., 2019). A study conducted by Boter and Lundström (2005) involving 1002 entrepreneurs in Sweden found that 70 per cent of the entrepreneurs established connection with the private sectors compared to only 10 per cent with the government sector. Curran and Blackbarn (2000) identified five causal factors for entrepreneurs to lack confidence in the implementation of programmes by government agencies and these factors are poor marketing strategies, expensive participation fees, poor content and services including bureaucracy, lack of confidence in the services from the government particularly when political interference exists, and programmes and trainings that do not meet the needs of the entrepreneurs. Audet and St-jean (2007) in their study explained that programmes formulated by government agencies are often perceived as unbeneficial to entrepreneurs' business needs and difficult for entrepreneurs to understand. At the same time, the lack of information on the contents of a programme results in the entrepreneurs not being aware of the existence of government introduced programmes. This finding is supported by a recent study by Shamsuddin et al. (2020) who found that SME entrepreneurs were not even aware of government business support services in Malaysia.

In Malaysia, the government provides business support service assistance for entrepreneurs especially Malay entrepreneurs. Malay entrepreneurs often find it difficult to succeed without the assistance of the government particularly for entrepreneurs who have no experience in business. Malay entrepreneurs require guidance and assistance not only during the early stages of business but also at the stage of business retention in the market. In fact, it could be argued that without government assistance, it would be very difficult for Malay businesses to grow. Mohd Rifin et al. (2021) explained that business support services from the government is a form of business network between the entrepreneurs and the government institution that creates two forms of business network value, namely (1) tangible value in material form such as raw materials, financial resources and grants, and (2) intangible value in non-material form such as advice, guidance, information, intermediary to obtain business opportunities and a source of reference in discussing business problems. Nonetheless, despite the government of Malaysia launching various schemes and paying more attention to the development of Malaysian SMEs for the past 20 years, such schemes and programmes have not been fully utilised by SMEs (Shamsuddin et al., 2017). In their study, Yusoff and Yaacob (2010) found that the business support services provided by the government were not fully utilised by the SMEs especially among the micro-sized SMEs. Similar findings were also found by Nor Hakimin Yusoff and Anwar Zainol (2014) in their study where it was discovered that a total of 49.7% of the entrepreneurs in their sample did not use the support services from the government. The results of the study also revealed that entrepreneurs who did not use the support services from the government reported being satisfied with their business performance and were even more successful compared to the entrepreneurs who used the business support assistance from the government. In a recent study by Shamsuddin et al. (2020), the researchers found that the SMEs in Malaysia were not even aware of the business support services available and that the level of awareness depended on the company’s current need for utilisation of the government business support services. The point that such an issue emerged clearly indicates that there exist weaknesses and shortcomings in the business support services provided by the government. The study conducted by Shamsuddin et al. (2017) found that selecting government support services that fits the type of business plays an important role in the performance of the SMEs. Therefore, a comprehensive study needs to be carried out to explore the factors that cause Malay entrepreneurs not to take advantage of the assistance of the business support services provided by the government and subsequently examine the behaviour and decision based on rational choice. In order to answer all the questions posed in this study, Coleman's theory of rational choice formed the basis of the discussion.

The essence of Coleman's theory of rational choice is that humans act purposively towards a goal, where the goal (and therefore the action) is shaped by values or preferences (Coleman 1990: 13). Two important elements in Coleman's theory are the actors and resources. Resources are the things that can be controlled by the actor and is of interest and advantage to the actor. Each actor possesses and is able to control certain resources. To obtain resources from other actors, the actor needs to engage in activities that involve other actors. It is for the purpose of attaining their resources of interests in this structure that a person needs to build relationship with other actors (Coleman 1990: 29). In the context of SMEs in this study, the actors (Malay entrepreneurs) were aware of their limitations and capabilities in acquiring resources. Therefore, the Malay entrepreneurs in this study involved other actors apart from the business support services from the government to help them acquire and control part of the interests (production resources, technology and expertise) that could not be controlled by the Malay entrepreneurs. Subsequently, in making a choice, the Malay entrepreneurs would consider the costs and the benefits to be received before making any decision. According to Coleman, the theory of rational choice operates at the individual or micro level as a basis for explaining the macro level phenomenon and in this regard, the approach of the rational choice theory is able to explain the relationship between the micro and macro level. Thus, this paper discusses the study's findings on the factors of rejection of government business support services and also the evaluation of the decision through action (goals) made using the rational choice approach that could explain the relationship between the micro level (Malay entrepreneurs) and the macro level (government institution) as a whole.

3. Methodology

This study is a qualitative study using the phenomenological approach to explore the factors of rejection of government support services among entrepreneurs in Kuala Terengganu, Malaysia. Kuala Terengganu was chosen because the state is a focal point for business among Malays and thus would be able to represent the population of Malay entrepreneurs. The main focus in this phenomenological approach is to explain and describe the experiences and knowledge of the social actors about a concept based on their worldviews and not the views and perceptions of the researcher. The interviews between the researcher and informants focused on the factors that made it difficult for the Malay entrepreneurs to accept the assistance provided by the government according to their worldviews and the extent to which the influence of rational choice has an impact in the process of making decisions.

A total of 20 Malay entrepreneurs were involved in the in-depth interviews and non-participatory observations which were conducted using the purposive and snowball sampling methods. The snowball sampling method enabled the researchers to reach potential informants with the help of available informants who introduced the researchers to business partners they know. At the same time, this method provided the opportunity for the researchers to investigate the Malay entrepreneurs' business network. The researchers had set the criteria that the entrepreneurs qualified to be informants in this study should hire at least five employees with minimum annual revenue earnings of RM300, 000. It should be noted that the different company sizes and the type of business of the Malay entrepreneurs which did not focus on one specific business were not an issue in this study as the study sought to examine the social and entrepreneurial system. These differences provided an advantage in examining the management system in the micro, small and medium companies. The different types of business opened up the opportunity to examine interesting cultural patterns in the different business sectors. The in-depth interview method using audio-tape recording was implemented in this study because this method could stimulate lengthy conversations by providing the informants the opportunity to freely express their experiences and opinions. All the interviews were transcribed and formatted for inclusion in the ATLAS.ti database and were used to generate categories and data indexes. This method also enabled the researchers to categorise the themes rigorously and systematically and allowed the processing and analyses of data to be carried out meticulously. It should be noted that to protect the informants' personal information, the informants' names were replaced with identifiers, namely P (participant) and a number.

4. Results and Discussion

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4.1. Informant Profile

Table 1 shows the profile of all the informants of this study. A total of 20 Malay entrepreneurs were involved in this study, comprising 14 male entrepreneurs and 6 female entrepreneurs. The youngest age of the informants for this study was less than 30 years old while the oldest age was more than 61 years old.

Table 1: Informant Profile

Items	**Percentage (%)**
Gender	
Male	70
Female	30
Age	
Less than 30	5
30 to 35	10
36 to 40	30
41 to 45	5
46 to 50	15
51 to 55	10
56 to 60	15
Above 61	10
Business Sector	
Food	35
Livestock	20
Services	25
Handicrafts	20
Number of Employees (persons)	
More than 30	20
5 to 30	80
Level of Education	
SPM	35
Certificate	10
Diploma/STPM	30
Bachelor’s Degree	10
Master’s Degree	10
PhD	5
Previous Type of Employment	
Self-employed in the field of business	30
Self-employed in a non-business field	25
Working in a government agency	15
Working in a private agency	25
Unemployed	5

Background of parents who are involved in business	
Both parents	20
Father only	30
Mother only	-
Not parents	50
Type of Business	
New business	90
Family business	10
Type of Business Ownership	
Sole proprietorship	25
Partnership	75
Experience in Business (year)	
Less than 5 years	15
5 to 10 years	25
11 to 15 years	20
16 to 20 years	10
21 to 25 years	5
26 to 30 years	20
More than 30 years	5

In terms of the business sector, 35 per cent of the informants were in the food sector, 25 per cent in the services sector and 20 per cent in the livestock and handicraft sectors, respectively. It should be noted that the types of business engaged by the entrepreneurs which did not focus on specific areas of business is not an issue in this study because the aim of the study was to examine the factors of rejection of government business support services among the Malay entrepreneurs. In relation to the number of employees, this was categorised based on the definition of the official size of small and medium enterprises as referred from the official website of SME Corp Malaysia. According to the definition of SME Corp. Malaysia (2020), businesses that own less than 5 employees are categorised as micro enterprises, while those with employees within the range of 5 to 30 are categorised as small enterprises and those having more than 30 employees are categorised as medium enterprises. In this study, the majority of the informants reported having between 5 to 30 workers which is referred to as small enterprises (80 per cent) while 20 per cent of the informants had more than 30 employees, indicating medium enterprises.

In terms of informants' level of education, the lowest level of education was SPM while the highest level of education was PhD. This suggests that the informants' level of education ranged from the school level up to the university level. Having good education level facilitated the informants in looking for information and receiving business knowledge consistent with the level of education acquired. In fact, education is one of the key factors that influences success in any business. Concerning the informants' business background, the results showed that the majority of the informants (70 per cent) were not previously involved in business while the rest (30 per cent) were involved in business. This clarifies that the majority of the informants developed their business without having experience in managing a business. This makes it interesting to examine how the informants in this study manage their business without having sufficient knowledge in business. This is because a successful business requires the entrepreneurs to equip themselves with strong business knowledge to manage their business effectively and to be able to remain competitive in the market. In terms of family background, half of the informants came from family with background in business activities. However, only 10 per cent from among the informants run family-owned business activities. Having the background of the family being involved in business plays an important role in the formation of a person's entrepreneurial personal traits. This is because it is easier for business information sharing and guidance from family members to occur to develop and form a successful entrepreneur. Concerning types of business ownership, the majority of the entrepreneurs (75 per cent) reported being joint business owners. Only 5 per cent of the informants were sole proprietorship type of business owners. Additionally, 15 per cent of the informants in this study reported having less than 5 years of experience in running a business and only 5 per cent reported having experience of more than 30 years in running a business. Managing business for a very long period of time gives advantage to the informants in running their business compared to an entrepreneur who is just starting a business. This is because the entrepreneurs who have acquired sufficient business knowledge are able to identify risks, obtain raw materials from various sources, and are capable of planning and designing successful business modules as a result of the experience they have. Thus, in the context of this study, the diverse profile of the informants makes it interesting to investigate the factors of rejection of government business support services among the entrepreneurs.

4.2. Government Support Services Rejection Factors

There are two main factors that made it difficult for the Malay entrepreneurs to accept the assistance provided by the government. The first factor is the attitude of the Malay entrepreneurs themselves who made the decision not to deal with the government. As for the second factor, it refers to the existence of problems between the Malay entrepreneurs and the government agencies at the implementation level.

4.2.1. Attitude of Malay Entrepreneurs

The government strives to assist entrepreneurs from the business planning stage up to the business retention stage in the market. Numerous efforts are made in formulating various programmes such as making available courses and training aimed at providing guidance and advice in running a business. However, the results of this study showed that there are informants who did not accept assistance from the government because of the factors of not being daring enough to take the risks, wanting to run business on a small-scale, unattractive government entrepreneurship programmes and training, and huge expenses required to participate in the entrepreneurship programmes.

> *I did not take up the government assistance because I wanted to run my own business with my own capital. Apart from using my savings in the business dealings, my father and brother also helped by lending their money for this business. (P1)*

The statement above explains that the entrepreneurs chose to run their business using their own capital without expecting assistance from the government. The entrepreneurs run their business using their own capital and help from their family members without making loans from the government especially during the early stages of starting their business. Previous studies have revealed that entrepreneurs prefer to seek financial assistance from close individuals such as family members, friends, and other informal sources rather than seeking financial support assistance from the government (Elston et al., 2016; Staniewski et al., 2015; Stevenson et al., 2019). One of the factors for the entrepreneurs' refusal to accept loan assistance from the government (*Agro Bank*, *Bank Rakyat*, *PerbadananUsahawan Nasional Berhad (PUNB)*, *SME Bank* and *Amanah Ikhtiar*) is because they do not want to be in debt. This is in line with the statement made by informant P20 who explained that:

> *I have never taken out bank loans. I do not borrow from banks because I do not want to be in debt. Apart from that, I want to avoid risks because my livestock is not that much. It's a risk if*

> *I could not afford to pay back. Even more with the current economic situation. Customers buy less of local meat and have switched to imported meat. If I take on loans, I feel I wouldn't be like I'm now because I'd always be thinking of the debt that I'd have to settle. I'm not highly educated, so I'm scared of being scammed or the like. Agro Bank wanted to give me a loan, but I didn't want to. The package offered was already a soft loan, but I still wanted to avoid unwanted risks. (P20)*

Informant P20 voiced his apprehension if he were to take on a loan with the bank. The unstable economic situation and the declining demand as a result of competition in the market further reinforced informant P20's decision not to cooperate with banks. For informant P20, his decision not to take on any bank loan can help him avoid from risks and problems in the future. In addition to avoiding risks in business, the entrepreneurs in this study also avoided from risks that involved their families and prioritised their families over business.

> *At the moment, I do not want to go far even though the government is willing to help me. My purpose for doing business is because of interest, not to chase after wealth or popularity. But when my child got older, I went back to the nature of life; I asked myself what the purpose of life is, so I gave the opportunity to the young ones, I taught them how to do business. One of the things I did was to resign from my post as the food truck chairman to give young people a chance. So now I am giving more attention to my only child and continuing my business at a modest scale. (P8)*

Informant P8 uttered her concern for the family if she were to expand the business they owned. The priority for the family became the impetus for informant P8 to choose not to be actively involved in business even though the government is willing to help expand their business. The rationale was that in the context of profits, informant P8 values the family as the main priority that is more rewarding and lucrative compared to chasing after business profits. Therefore, informant P8 chose to prioritise the family over expanding the business despite the government's willingness to provide assistance. The statements of informants P1, P20 and P8 are in line with the statement by Curran and Blackbarn (2000) who stated that entrepreneurs who run a business without expecting any help from outsiders are able to determine the direction of their own business and many of them often refuse to expand their business because of the worry that they would not be able to control the business. In this regard, the informants in this study acted rationally in making choices in determining the future of the business they owned by avoiding from cooperating with any parties to avoid any risk of loss in the future. Thus, the entrepreneurs chose not to expand their business and decided to run their business moderately. Moreover, the more the business grows, the higher the risks faced by the entrepreneurs. As a result, all the efforts of the government to help the entrepreneurs to expand their business could not be realised.

The government seeks to assist entrepreneurs by providing various programmes aimed at training and guiding the entrepreneurs so that they can build successful businesses. However, the programmes provided by the government appear not to attract the interest of entrepreneurs. According to the informants in this study, one of the factors for them to reject the programmes provided by the government is the content of the programmes' activities which they felt was not suitable with the type of business they run. The following is the grievance expressed by informant P10 towards the courses and training provided by the government:

> *I did not participate in any expos organised by the Entrepreneur Development Foundation (YPU) because I feel that they are not beneficial since I only sell perishable goods. Moreover, I do not have any problems in marketing my products. The existing customers are more than enough and sometimes I am unable to fulfil the requests of my customers. (P10)*

The above statement clarifies that informant P10 did not participate in the programmes organised by the government since the programmes did not benefit their business. For the entrepreneurs, the goal of attending the programmes is to look for opportunities, information and guidance that could help them run their businesses better. Additionally, informants P6 and P2 shared the same opinion as informant P10 in that they felt that the quality of the programmes provided by the government did not help them in running their business. The following narrations are their explanation on the matter:

The course that I attended was for a basic course only. If we followed what they taught, the product would not turn out well. After knowing the basics, I'd look for other people. So, there are a lot of opinions and knowledge that I gained before I truly found the most suitable recipe. I tried so many times until it really turned out well. Some of the information I obtained from the government agency was incomplete. In fact, even the government officer came to see me to ask certain things. The officer asked my opinion for him to share with others. (P6)

It is difficult for the government to provide assistance like the courses that food suppliers provide; the government only provides courses that give the basic guidance only. Even the government officers learn from me. (P2)

The statements above clarify that the programmes provided by the government are merely basic programmes. This results in the informants not getting the additional guidance and knowledge they needed from the entrepreneurship programmes organised by the government. The business support services offered by the government are not the ones desired and needed by the entrepreneurs in their business (Curran & Blackbarn, 2000). As a result, the outcome of the programmes and training organised by the government does not align with the wishes and requirements of the entrepreneurs (Zin & Ibrahim, 2020). In fact, the study conducted among entrepreneurs in Sabah by Noraini et al. (2018) found that non-financial support such as training assistance from the government did not have an impact on the entrepreneurs' performance. According to the study carried out by Shamsuddin et al. (2017), selection of entrepreneurship programmes from the government is important in influencing business performance where the programme should be implemented well and has an impact on the business. Therefore, the selection of quality entrepreneurship programmes can provide benefit and additional knowledge to the entrepreneurs and simultaneously help them to successfully run their business. Since the entrepreneurship programmes provided by the government did not meet their business demands and needs, as described by informants P10, P6 and P2, the entrepreneurship programmes organised by the government therefore did not gain good reception among the entrepreneurs in this study. At the same time, the lack of expertise from the government agencies that are supposed to function as a source of reference for the entrepreneurs when facing problems in business led to the loss of value of reliance and trust towards the government agencies among the informants. The rationale is that there is a lack of need to participate in the programmes organised by the government as there are no benefits and additional knowledge to be gained from the programmes that can be applied in their business. In fact, the informants in this study chose to learn the business knowledge on their own through electronic media and printed media as they could easily access the knowledge on websites. This can be explained through the statements made by informants P12 and P10, respectively:

> *I did not participate in any course or training. But I read a lot about successful entrepreneurs. I like to learn on my own. Now, everything is easy to learn because of the computer. There is a lot of information from the internet. Everything is there. (P12)*

> *Lack of knowledge of the government agencies regarding white prawn farming. Sometimes the fisheries officer himself comes to see me and asks things related to white prawn farming. I had to search for knowledge on my own from YouTube or Google. He learns from my experience; in fact, he even sends their staffs and practical students to gain knowledge from me. The Fisheries Department will pay me throughout the period of course and training that I provide. But if there is no payment, I will not accept because I have a business to run. I look at all aspects such as time, costs, and others in handling these practical students. For me, each second of time is money. (P10)*

Informants P12 and P10 shared similar opinion in that knowledge and information related to business can be obtained from reading materials available on the internet. Media social applications like YouTube, Facebook and Google provided the informants various knowledge and information that they needed to help them run their business and solve the problems they faced. The rationale is that the informants' action came about as a result of the lack of expertise in government agencies in solving the problems faced by the informants. The government is thus not seen as a source of reference for the informants in solving the problems they faced. Consequently, the informants acted rationally by searching for reliable and effective sources through readings on the internet. In addition to saving time and energy, the informants also gained profit as a result of the readings when they get paid by the government who invited them to provide guidance and share their knowledge with participants and government staff who attended the government programmes.

Not all programmes provided by the government are free or subsidised as there are also programmes that require the entrepreneurs to pay a portion of the programme cost. This is described by informant P10 who mentioned that not all programmes organised by the government are free; in fact, some of the programmes organised by the government require huge expenses to be borne by the entrepreneurs themselves. Informant P11 also mentioned the same in his statement:

> *I was once offered to participate in an exhibition overseas. After discussing with my friend because my friend had participated in the exhibition, my friend did not encourage me to join the programme because of the huge expenses. The very least RM12k. The agency only helps with half of the cost. Because I have to take into consideration the cost of accommodation including my employees, food and drink and others, I did not participate in the programme. (P11)*

The statement above clarifies that some of the programmes organised by the government require the informants to fork out huge expenses. The findings of this study are in line with the study carried out by Curran and Blackbarn (2000) who reported that the price of the support services provided by the government is costly. This makes it difficult for informants to participate in the programmes organised by the government. The informants need to take into account the cost incurred to participate in the government-organised programmes. Based on the statement of informant P11, the informants need to pay a large sum for expenses because the government only pays for half of the total cost of the programme. Hence, these programmes which require the informants to fork out huge expenses to participate do not attract the interest of the informants.

4.2.2. Lack of understanding between Malay entrepreneurs and government agencies at the implementation stage

The second factor refers to the problems that exist between the Malay entrepreneurs and the government agencies at the implementation stage which comprised issues of lack of expertise and knowledge among the government staff, the dearth of feedback or responses from the government, bureaucracy, political influence, and government policies that do not favour the Malay entrepreneurs.

The programmes which have been planned to assist the entrepreneurs in Malaysia are seen to have potential to achieve their goals. However, in planning the entrepreneurship programmes either at the state level or the national level, leakages exist at the implementation stage between the government agencies and the entrepreneurs, and this makes it difficult for the goals of the programmes to be accomplished. The results of this study clearly indicate that problems exist between the informants and the government agencies at the implementation stage. The following statements are the informants' account regarding the matter:

> *For sick chickens, I buy my own medicine; the veterinarians do not provide medical assistance for my livestock. In fact, it is the Veterinarian Office that asks me the appropriate medicines for sick chickens. The veterinarians do not provide assistance but only conduct monitoring at the farm and jot down information or records regarding the number of livestock and the number of sales. The veterinarians also do not solve the problems faced by the farmer if there are any. (P2)*

> *The actions or decisions made at the government agencies are not appropriate to the needs of the livestock that I farm. For example, to eradicate the poultry disease, the Veterinarian Office used methods that were not suited to the actual situation and as a result, the disease did not lessen when using the methods suggested by the Veterinarian Office. So, I resorted to using my own way that was able to lessen the problem of the poultry disease. (P20)*

Informants P2 and P20 had the problem of differences of opinion with the government agencies in resolving the problems faced by both informants. This situation occurred because of the lack of expertise and knowledge from the government agencies in finding a solution to the problems encountered by the informants. The government agencies simply monitored and recorded the problems that the informants experienced. As a consequence of their experience, the informants no longer deal with the government agencies if they run into problems and choose to solve the problems that they face in their own way.

> *20 per cent of my chickens died. I solved the problem in my own way and did not get in touch with the Veterinarian Office. If I contacted the Veterinarian Office, it would only create even more problems when they conduct further inspection. I have reared chickens for a long time, I already know how to deal with sick chickens. (P2)*

Informants P2 and P20 in their statements explained that they resolved the problems they faced on their own without expecting assistance from the government. According to the informants, if they get in touch with the government agencies, their problems would be exacerbated once the government agencies conduct further inspections. This would add to the burden of the problems that the entrepreneurs have to face. This caused the informants to no longer consider the government agencies as an agency that could solve their problems if they were to face any. The government is seen as not having the experience nor the skills in guiding the entrepreneurs on how they should conduct their business (Curran & Blackbarn, 2000). This clarifies that the informants in this study no longer have full confidence and trust in the government in resolving the problems that they encounter. The impact is that the entrepreneurs find it hard to involve themselves in the entrepreneurship programmes organised by the government. In this regard, the informants in this study acted rationally by no longer being in contact with the government agencies should they encounter any problems and resolved the problems they faced on their own. The rationale is that no benefit can be expected from the government agencies, and the problems would be exacerbated further when the government agencies conduct further inspections. Thus, the informants chose to solve the problems in their own way without expecting any assistance from the government.

Additionally, the government agencies also do not provide feedback or responses to the applications for assistance requested by the entrepreneurs. The types of assistance that can be applied are advertised by the government agencies and they require the entrepreneurs to first make an application before the assistance is channelled. However, once application is made, no feedback is given by the agencies to the entrepreneurs' application. This situation happened to informant P20. The following is informant P20's account on the matter:

> *I had once asked for grant assistance from the Agricultural Office but until now I have not received any answers. I asked the Veterinarian Office to assist me in writing a paper work but still have not received any news from the Agricultural Office. I expect the superiors to let me know the status of my application and what I should improve. But there is still no response. (P20)*

The statement by P20 elucidates the difficulty faced by the entrepreneurs in obtaining assistance from the government. Apart from the difficulty in getting assistance from the government, there were also problems of inconveniences when dealing with the government agencies. This situation can be explained through informant P12's statement where problems of repayment materialised when dealing with the government agencies. This situation can be explained through the excerpt below:

> *Previously, I received orders from the government agencies and the payment was made using local orders (LO). But the payment was late (3 to 4 months), and this caused the problem of capital and made it difficult for me to continue with the production operation of the product because of the lack of money. So, I no longer conduct business transactions using LO payment from the government. (P12)*

The statements of informants P20 and P12 explain the situation that occurred to them when dealing with the government agencies. The difficulty in getting assistance and the complicated procedures made the cooperation between the informants and the government agencies challenging. The result is consistent with the ones found in the studies conducted by Ayub et al. (2020) and Daisy et al. (2011) where the majority of the business support programmes provided by the government were not fully taken advantage of because of the complicated application procedures, the lengthy process, limited resources, and programme content which did not fit the business level. At the same time, the results of this study also revealed that the type of services that did not get much response from the entrepreneurs was the loan assistance from government agencies such as the SME Bank. This is because of the lengthy loan application procedure (2 months to 3 months) when compared to commercial banks (less than a week). For this reason, entrepreneurs are often more interested in dealing with commercial banks (Daisy et al., 2011). Studies have shown that the problem of weak delivery, difficulties in obtaining assistive services, and the problem of bureaucracy in government administration (Curran & Blackbarn, 2000; Yusoff, Yaacob, & Abdul Aziz, 2014) have made it difficult for entrepreneurs to continue with their business activities and expand their business. As a result of these difficulties, the informants in this study acted rationally by choosing not to be involved with the government agencies. The rationale is that the difficulty in getting assistance and the problem of bureaucracy made it difficult for the informants to continue with their business activities according to the business planning and strategies that have been planned. This resulted in the informants using other alternatives in obtaining assistance, without expecting help from the government. At the same time, by not dealing with the government, the informants could avoid from having to face unnecessary problems.

Politics could not be separated from a government. Governments are formed from the political parties that won during elections. Thus, all the programmes organised by the government could not be separated from the agenda of the governing political party at the time. The leadership of a political party has different goals and is constantly changing according to the leadership at that time. The results of this study revealed that the effect of the change of leadership of a political party caused difficulties to the point that it brought losses to the entrepreneurs. This can be evidenced through the statement of informant P3 who explained that the business he built suffered losses when change of leadership occurred:

> *In the past, the government promised to make the leather hide collection centre in Southeast Asia but because of politics, the matter did not materialise. Initially, I fulfilled the requirements of the government by making investments, buying machines, investing in skilled workers (Malaysia has no skilled workers in leather processing). When the leader changed from Abdullah Ahmad Badawi to Najib Razak, all budgets for agriculture were cut. The government said this project failed and slashed various types of assistance. As a result, I had to downsize my operation and had to bring in leather hides from*

> *Indonesia because there was no livestock leather hide collection centre in Malaysia. After the change of leadership, Najib Razak reopened the licenses from abroad for import of goats from overseas. As a result, I couldn't compete with the products from abroad because the imported products were far cheaper, and I couldn't sell with a cheaper price. (P3)*

The statement above clearly indicates that political influence can affect the business of entrepreneurs. Informant P3 suffered losses as a result of his cooperation in the programmes of the previous leadership. All the planning of the earlier programmes could not be continued and as a result, the entrepreneur suffered losses. In addition, the informants in this study also voiced their grievances towards the government that do not seem to listen to the problems they faced. The following is the statement of informant P10:

> *The government now still uses the top-down technique. The problems faced by the livestock farmers including myself are still not listened to by the government. The government still couldn't find the best solution for livestock farmers like myself. The government asked the livestock farmers to increase production and operation. But after producing a lot of yield, the problem of product dumping occurred which resulted in livestock farmers having to sell at a cheap price and having to suffer losses because I produce perishable products and these products do not last long. So, I feel that it's better for me to produce products on a moderate scale and still gain maximum profit. (P10)*

The statements of informants P3 and P10 described the situation that occurred when liaising with government agencies. Their participation in the entrepreneurship programmes organised by the government brought problems and losses to their business. The problems emerged because the policies and strategies formulated by the government did not involve the participation of the entrepreneurs in contributing ideas and in voicing the problems faced by the entrepreneurs. According to Curran and Blackbarn (2000), governments which are represented by political parties simply formulate or change economic policies such as taxes and interest rates which ultimately has a detrimental effect on entrepreneurs. This can be evidenced through the statements of informants P3 and P10 where the government's initiatives and recommendations in assisting the entrepreneurs were seen not to benefit the entrepreneurs and even created various problems that had to be faced by the entrepreneurs on their own. The government did not involve the entrepreneurs in designing a programme. The informants had to follow all the planning set by the government if they want to deal with the government. The informants felt that all the suggestions and problems faced by the informants were not attended to by the government. If a problem emerged, the informants had to solve the problems on their own and there was no assistance from the government. Consequently, the informants no longer place their trust and confidence in the government and acted rationally by no longer following the programmes organised by the government. The rationale is that the informants felt that there is no guarantee of success and profit in each of the programmes organised by the government. Therefore, the informants acted by planning the business on their own without involving the government. This situation taught the entrepreneurs a lesson which is to no longer cooperate with the government through programmes planned in the future especially those involving certain political parties.

> *I do not depend on the government and politicians because I want to avoid my business from failing. Most businesses that depend on politicians will eventually fail. But politics is important as well. Let the politicians look for us and not us looking for the politicians. For example, Tan Sri Syed Mokhtar, the government looked for him because he has potential and influence. So, the politicians depend on him, and the politicians need his support. (P12)*

Informant P12 agreed that business should not involve politics. Dependence on politics brings with it more problems than profit. This shows that informant P12 acted rationally by separating business from politics. The rational is that involving business with politics would not help the business endure and would eventually bring with it the risk of losses in the future.

5. Conclusion

Previous researchers have discussed the factors of rejection of assistance from the government. However, the findings from previous research have not been able to explain in depth the factors of rejection of government business support services from the worldview of the Malay entrepreneurs themselves. To explain the social phenomenon at the micro level (Malay entrepreneurs) and its relationship with the macro level (government institution) according to the worldview of the Malay entrepreneurs, in-depth interviews were conducted with Malay entrepreneurs in this study. Based on the findings, two conclusions can be drawn from this study. The first conclusion is that the reluctance of the Malay entrepreneurs to deal with the government is due to two main factors, namely the attitude of the Malay entrepreneurs themselves who did not dare take risks and wanted to run their business on a small scale, and the nature of the entrepreneurship programmes and training organised by the government which were unappealing and required huge expenses for the entrepreneurs to participate in. The second conclusion is the lack of understanding between the Malay entrepreneurs and the government agencies at the implementation stage. This situation occurred because of the lack of expertise and knowledge among the government staff, the lack of response and feedback from the government, the problem of bureaucracy, the issue of political influence, and government policies that do not favour the Malay entrepreneurs. As the field of entrepreneurship is a key area in economic development and societal wellbeing (job offerings), the government needs to provide effective business support services so as to produce even more entrepreneurs who are successful, viable and resilient in line with the goals of the 2030 national entrepreneurship policy. The implication of this study is the government should facilitate the entrepreneurs in getting assistance and re-evaluate the content of the entrepreneurship programmes so that they meet the entrepreneurs' business needs. In formulating and designing the entrepreneurship programmes, the government should identify the problems faced by the entrepreneurs and take into consideration the views of the entrepreneurs so that every programme that is formulated fulfils the needs and requirements of the entrepreneurs. The government should also review the entrepreneurship policies by paying attention to entrepreneur-friendly elements and basing the policies on mutual integration so that the policies and strategies introduced are able to bring benefit to the entrepreneurs and subsequently engender entrepreneurs who are capable of competing in the market.

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Attitudes Towards Graduate Unemployment in Southeast Asia: An Examination Using Himmah and Rajaa

Hanaa Hasan[1] and Imran Alvi[2]

ABSTRACT

Graduate unemployment is a significant challenge for Muslim-majority states. Based upon focus groups conducted with university students in Indonesia and Brunei, this research examines what insights the Islamic literature can provide with respect to tackling joblessness at the behavioural level. Using the theoretical model developed by Alvi (2021), it differentiates between the reach and purpose behind students' aspirations, as well as the willpower (*himmah*) and true hope (*rajaa*) required to reach their goal. The results of the focus groups suggest that most students lack a clearly articulated career path, which impacts their attitudes towards job hunting. The paper highlights three areas of action for policymakers and higher education institutions: firstly, it highlights the importance of prioritising exposure to different professions to enable students to make an informed choice. It secondly supports the use of religion to root students' motivations in a broader vision. It finally recommends a flexible approach to strengthen the clarity of students' aspirations where necessary, and ensure they have support during school-to-work transitions through the use of alumni or a mentorship scheme.

ملخص

تمثل البطالة في صفوف الخريجين تحديا كبيرا للدول ذات الأغلبية المسلمة.واستنادا إلى مجموعات مناقشة أجريت مع طلاب جامعيين في إندونيسيا وبروناي، يستكشف هذا البحث الرؤى التي يمكن أن توفرها الأدبيات الإسلامية فيما يتعلق بمعالجة البطالة على المستوى السلوكي. وباستخدام النموذج النظري الذي طوره ألفي (2021)، فإنه يميز بين مدى الوصول والغرض وراء تطلعات الطلاب، وكذلك

[1] Oxford Intellect, Oxford, United Kingdom
Email: hanaa.a.hasan@gmail.com
[2] Oxford Intellect, Oxford, United Kingdom and the Markfield Institute for Higher Education, Leicester, United Kingdom
Email: imran@oxfordintellect.co.uk

قوة الإرادة (الهمة) والأمل الحقيقي (الرجاء) المطلوب للوصول إلى هدفهم. وتشير نتائج مجموعات المناقشة إلى أن معظم الطلاب يفتقرون إلى مسار وظيفي واضح المعالم، مما يؤثر على مواقفهم تجاه البحث عن عمل.وتسلط الورقة البحثية الضوء على ثلاثة مجالات عمل لصناع السياسات ومؤسسات التعليم العالي: أولا، تسلط الضوء على أهمية إعطاء الأولوية للتعامل مع مهن مختلفة لتمكين الطلاب من اتخاذ قرار مستنير. ثانيا، تدعم استخدام الدين لتجذير دوافع الطلاب في رؤية أوسع. وتوصي أخيرا باتباع نهج مرن لتعزيز وضوح تطلعات الطلاب عند الضرورة، والتأكد من حصولهم على الدعم أثناء الانتقال من التعليم إلى العمل من خلال الاستعانة بقدماء الخريجين أو استخدام مخطط توجيهي.

ABSTRAITE

Le chômage des diplômés est un défi important pour les États à majorité musulmane. Sur la base de groupes de discussion menés avec des étudiants universitaires en Indonésie et au Brunei, cette recherche examine les idées que la littérature islamique peut fournir en matière de lutte contre le chômage au niveau comportemental. À l'aide du modèle théorique élaboré par Alvi (2021), il établit une distinction entre la portée et le but des aspirations des élèves, ainsi que la volonté (*himmah*) et le véritable espoir (*rajaa*) nécessaires pour atteindre leur objectif. Les résultats des groupes de discussion suggèrent que la plupart des étudiants n'ont pas de plan de carrière clairement défini, ce qui a un impact sur leur attitude vis-à-vis de la recherche d'emploi. Le document met en évidence trois domaines d'action pour les décideurs politiques et les établissements d'enseignement supérieur : tout d'abord, il souligne l'importance de privilégier l'exposition à différentes professions pour permettre aux étudiants de faire un choix éclairé. Il soutient ensuite l'utilisation de la religion pour ancrer les motivations des élèves dans une vision plus large. Il recommande enfin une approche flexible pour renforcer la clarté des aspirations des étudiants lorsque cela s'avère nécessaire, et pour s'assurer qu'ils bénéficient d'un soutien lors de la transition entre l'école et le travail, par le biais d'anciens élèves ou d'un programme de mentorat.

Keywords: Graduate Unemployment, Behaviour, Brunei, Indonesia, Al-Ghazali

JEL Classification: J60, J64

1. Introduction

Graduate unemployment is rapidly emerging as one of the most significant challenges facing emerging economies. Given the global emphasis on improving human capital, significant social upgrading has taken place in most regions over the past three decades. With the exception of sub-Saharan Africa, the expansion of primary, secondary and tertiary education has witnessed a growing cadre of educated young people (Altbach et al. 2009). However, employment rates have failed to keep up. On average, youth unemployment rates increased from 12.3% in 2008 to 13.1% in 2018 globally (ILO 2018). The highest rates are reported in the Middle East and North Africa region, followed by Latin America and then Western Europe. Globally, 20% of young people have NEET status, such that they are neither in education nor active in the labour market (ILO 2020).

Unemployment rates among those with a university education are often observed to be higher in several regions, with opportunities for middle-skilled employment often hollowed out by technological progress in comparison to informal or agricultural work (ILO 2020). Graduate unemployment is a waste of human capital and can result in a ‘brain drain’ if the long-term jobless choose to migrate abroad. Additionally, declining returns to tertiary education dampen wages, with graduates entering the labour market in a weak economy likely to suffer from lower lifetime earnings (Cribb et al 2017, Schwandt and Wachter 2019). Persistent unemployment can also lead to diminished mental and physical health, marital instability and lower life satisfaction (Brand 2015), thus reducing individuals’ overall ability to contribute to societal development.

Such global trends are reflected in Southeast Asia, where, despite falling unemployment, the proportion of jobless graduates remains high. In Indonesia, graduate unemployment stood at more than 7.5% in 2020, higher than the country’s average of 7% (Statistics Indonesia 2020). Similarly in Brunei, youth unemployment constitutes 21.3%; the second largest group of unemployed youth are university graduates (Centre for Strategic and Policy Studies 2021). There are additional concerns over the impact the coronavirus pandemic will have on jobseekers, particularly on fresh graduates as they enter the world of work for the first time.

In explaining youth, and more particularly graduate unemployment, many arguments lean towards the traditional explanation of a skills mismatch.

However, the insights of behavioural economics are changing our understanding of how individuals choose and act. Contrary to the homo economicus model, individuals can make systematic errors, be put off by complexity, procrastinate, or hold non-standard preferences and beliefs (DellaVigna 2009). Economic actors can also be nudged towards certain outcomes by capitalising on systematic cognitive and behavioural biases, as famously documented by Kahneman et al (1982). Consequently, there is a space for understanding how individuals perceive and behave in relation to unemployment in order to deliver policy success.

Labour market anomalies in Southeast Asia have been noted in the societal preference for government jobs, rooted in the region's history of large public sectors (Cheong and Lawrey 2009, Anandari and Nuraykin 2019). However, there has been little other research on the aspirations and motivations of young graduates and how this has impacted job-seeking behaviour in these countries.

This paper aims to fill this gap by analysing graduate unemployment through the lens of Islamic literature on aspirations, motivations and knowledge. Drawing on contributions from focus groups with final year university students in Indonesia and Brunei, it will investigate the prevailing attitudes and behaviour towards graduate unemployment, and discuss how aspirations shape job-seeking behaviour. This research is relevant to policymakers seeking to increase employment among young people, but also universities and higher education institutions that aim to support their students' school-to-work transitions.

2. Literature Review

2.1 Behaviour in the labour market

The rise of behavioural economics has fundamentally changed how we understand individual responses to labour market trends. This has led to a renewed focus by academics and policymakers on understanding how jobseekers and employers make decisions. Briscese and Tan (2018) find that increasing motivation to look for work can be achieved through small and inexpensive policy changes. For example, their report finds that job assistance can be improved by personalising text messaging; this is more likely to increase self-motivation and attendance at recruitment fairs. The report additionally highlights the importance of positive reinforcement; the authors' cite an intervention that displayed a chart of the number of successful job seekers who found employment through the centre to leverage social norms. The trial found that 49.4% of job seekers in the intervention group found work, compared to 32% of the control group.

Significant attention has also been dedicated to the particular role of aspirations and motivations of individuals and their impact on future success. However, while much of this research focuses on students, both in high school and university, the results are inconclusive.

Aspiration failure has been found to contribute to a downward spiral towards greater poverty, particularly in developing countries (Ibrahim 2011, Bernard et al 2011). However, Khattab (2014) finds evidence from British high school students that although aspirations, expectations and achievement do converge amongst some students, this does not occur amongst the majority. Additionally, in one out of every five young people, high aspirations and high expectations do not lead to academic achievement.

A focus on aspirations alone has been shown to be insufficient; based on studies of students in three areas of the United Kingdom, Kintrea et al (2011) find that young people need to be guided regarding how to reach their goals. Students require informed support, and the full range of educational outcomes and jobs are often not well understood. This is a factor noted in Alvi's (2021) theoretical model through the ilm axis. Significant variation was also observed in different areas of the UK, with the authors stressing that context specific factors, including class, culture and history, are relevant when understanding aspirations. Similarly, Amida et al (2020) find that intrinsic motivation among graduate students is the strongest motivation type that predicted perceived success, pointing to the importance of analysing not only aspirations, but the underlying reasons for certain goals as well.

Henley (2007) also finds with respect to transitions entrepreneurship that aspirations are not automatically indicative of future success. Aspirations were, for example, not found to be associated with intentional activity, such as active saving. This reinforces the idea that policy must address the preparedness of start-up businesses among aspiring entrepreneurs. This focus is echoed by Cummings et al (2012), who find that there is no evidence that attainment in school is impacted by changes in aspirations.

They argue that instead of ‘raising aspirations’, there must be a shift to ‘keeping aspirations on track’. Alvi (2021) again highlights this aspect through the Quwwah axis.

Finally, a systematic review of 170,000 pieces of evidence on this topic by Gorard et al (2012) finds that despite the significant amount of existing research, a causal relationship still cannot be drawn between aspirations and achievements. They point to this as being the result of poor-quality evidence and no rigorous evaluations of interventions that had been conducted in this area.

This summary consequently reveals a significant gap in the literature; while aspirations are of importance, specifics are required regarding how this manifests at different levels of education and in different places. Additionally, evidence to determine a clear causal relationship between aspirations and achievements is lacking, as well as a framework that adequately recognises motivations. We have also not found a paper that analyses these aspects in consideration of the influence of Islam as a cultural factor important to behavioural choice. This is a notable gap given the significance of Islam as a way of life for Muslim students; these are areas that this research seeks to elaborate upon.

2.2 Aspirations and knowledge in the Islamic tradition

The classical Islamic literature offers a new perspective on understanding the relationship between aspirations and actions. This research uses the theoretical model developed by Alvi (2021) to structure our approach to the focus groups.

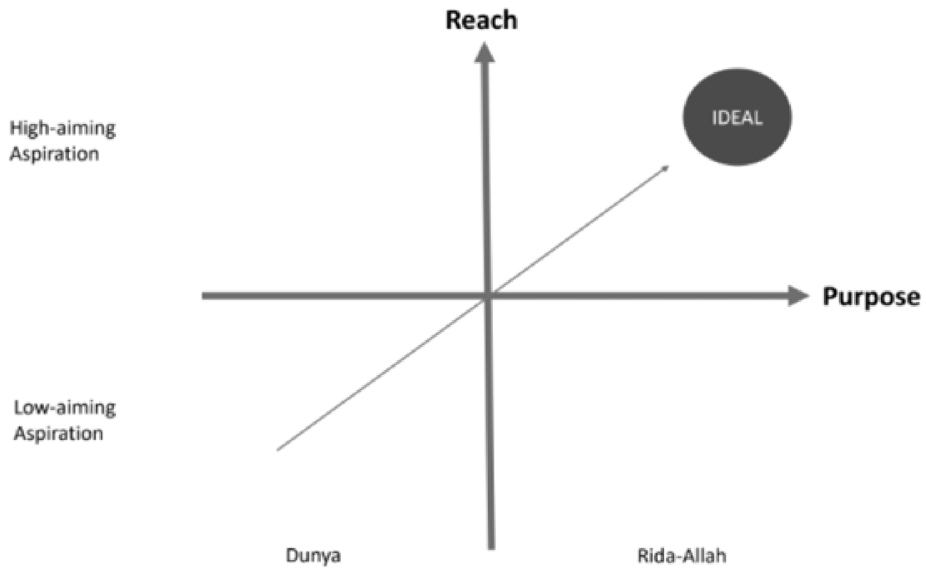
His theoretical model is concerned with the effect of individual attitudes and behaviour on graduate unemployment. We provide a brief introduction to the model below.

Drawing from the Islamic canon, the theoretical model focuses on two broad areas of individual behaviour: ‘*uluww-al-himmah*, high-aiming aspirations, and *rajaa*, true hope.

The first, high-aiming aspirations, are modelled across two axes: reach and purpose, as shown in Figure 1. Reach captures the height to which an individual’s aspires. At one end of the spectrum, a student simply aspires to graduate, and at the end of the spectrum, the student aspires to reach the pinnacle of their chosen work area.

Purpose examines the motivation behind the student’s aspiration. Here, the spectrum moves from being completely motivated by the *dunya*, or worldly gain, to being completely motivated by *Rida-Allah*, or the Pleasure of Allah.

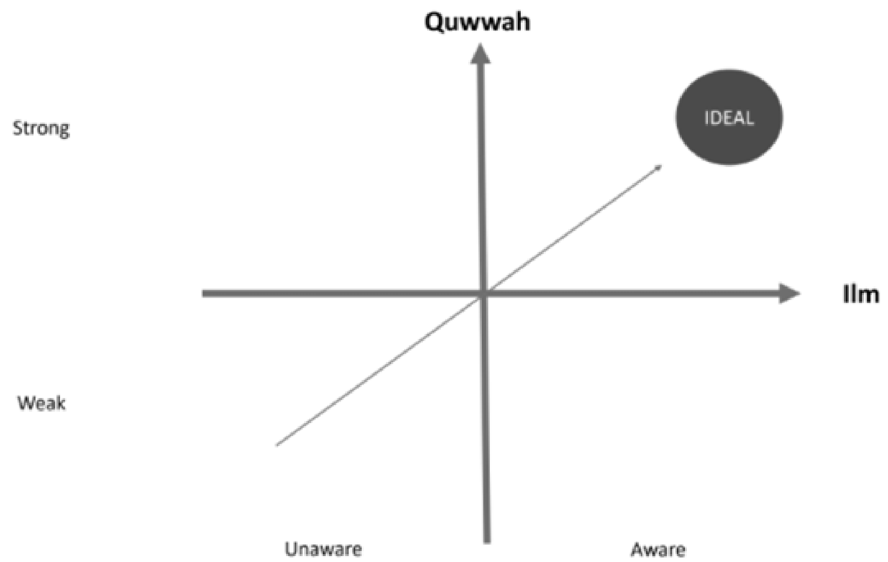
Figure 1: Modelling ‘*Uluww al-himmah* (Alvi 2021)



Rajaa, or true hope, examines a student’s knowledge (*ilm*) of how to succeed with the motivation (*quwwah*) to implement that knowledge.

Alvi (2021) takes from the classic work of Abu Hamid Al-Ghazali (Al-Ghazali 2014). While the work of Al-Ghazali focuses on the concepts of fear and hope in Allah, the delineation of states an individual may find themselves informs the discussion of graduate employment well. Al-Ghazali provides a typology of states an individual may occupy. The first is *rajaa*, or true hope. In this state, the individual has knowledge (*ilm*) of how to reach a predetermined goal and the motivation to achieve it (*quwwah*). The second state is that of *wahm*, or delusion. Here, an individual knows how to achieve a goal (*ilm*), but lacks the strength of intention to achieve it (*quwwah*). The last state is of *tamannah*, or vain hope. In this state we find an absence of *ilm* but the presence of *quwwah*; an individual is self-motivated, but is unaware of what course of action to take.

Figure 2: Modelling Rajaa (Alvi 2021)



Relating these concepts to graduate unemployment presents the student jobseeker as requiring four fundamental elements: a high-reaching ambition, a sense of purpose that fuels their aspiration, knowledge of how to achieve their goal, and willpower to implement the actions required (Alvi 2021).

3. Introduction to the case studies

The Southeast Asia region has witnessed impressive growth and poverty reductions in recent years. Yet as with many developing regions, emerging economies and middle income countries in particular continue to face challenges with respect to employment.

The most populous Muslim country in the world, Indonesia, has a population of over 270 million. The country is thought to be at the peak of its demographic dividend and has witnessed rising enrolment into tertiary education, with a high of 6,535,705 students enrolling in an undergraduate programmes in 2018 (UNESCO 2020a). The largest economy in Southeast Asia, Indonesia is the tenth largest economy in purchasing power parity, and has made significant attempts to diversify its economy and reduce absolute poverty over the past 20 years. Despite a gross graduation ratio from tertiary education of 21.2% (UNESCO 2020b), youth unemployment, though below a peak in 2005, has been rising since 2017. Youth account for over 50% of the unemployed population, and most unemployed youth have never worked before (ILO 2015). Graduate unemployment is at 7.5%, above the national average of 7% (Statistics Indonesia 2020). Most young people also work in the informal sector, often in a self-employed capacity; however, this has been shown to have long term scarring effects, such that individuals can expect either higher unemployment propensity or lower subsequent earning for the rest of their lives (Pritadrajati et al 2021).

Brunei, by contrast, has a small population of only 433,000, with just 6,729 undergraduate students enrolling in 2020 (UNESCO 2020a). A rentier economy, the sale of oil and gas account for half of its GDP and 90% of export revenues (Musa and Basir 2019). The public sector is the country's largest employer, providing jobs to 40% of Bruneians. With a gross graduation ratio of 22.95% (UNESCO 2020b), youth unemployment has been steadily rising, reaching 21.3%; most of these are secondary school leavers, followed by university graduates (Centre for Strategic and Policy Studies 2021).

Various reasons have been put forward in an effort to understand the persistently high unemployment rates in both Indonesia and Brunei. At a macro level, this has been explained as a result of poor quality education and a mismatch of skills (di Gropello 2011, Musa and Idris 2020). Consequently, in Indonesia, supply side efforts to improve school-to-work transitions have focused on providing vocational skills and jobseeker information services (ILO 2015). Recommendations for Brunei have also pointed to the need to attract foreign investment and improve the business environment in order to diversify the economy and create more private sector jobs (IMF 2019).

At the level of the individual, some attention has also been directed to the employment aspirations of jobseekers. The preference for government employment, the result of a historical legacy of large public sectors in the region, has been noted in both countries. Research in Indonesia has also shown that workers with higher education levels have a lower risk tolerance, and so opt for the public sector due to the increased security (Anandari and Nuryakin 2019). Similarly in Brunei, Cheong and Lawrey (2009) find that there is a mismatch between expectations and available employment in Brunei, with many jobseekers desiring clerical and lower white-collar office jobs, as opposed to manual, skilled and semi-skilled labour. Additionally, Rizzo et al (2016), find that one of the main covariates of unemployment is field of study, with a particularly high unemployment rate amongst Bruneian arts and humanities graduates.

This paper aims to further scrutinise individual-level phenomena. Drawing on the theoretical framework provided by the Islamic literature, it will examine how students' aspirations, motivation and knowledge are relevant to job seeking behaviours.

4. Methodology

This study is based on the findings of a series of focus groups conducted between January and February 2021 with final year university students in Indonesia and Brunei. Focus groups are discussion groups facilitated by a moderator where participants share views on a particular subject. This method effectively allowed us to generate a significant amount of data on the employment aspirations of graduating students, and how they were preparing themselves to enter the job market. It also allowed us to contextualise and validate individual responses, and gain insight into how opinions and career choices are socially influenced (Flick 2009: 205).

4.1 Sample and data collection

Four focus groups were carried out online via Zoom, with between four and seven students in each session. The participants were between the ages of 21 and 23. As observed in Table 1, of the total 22 students, ten were studying in Brunei and 12 in Indonesia. Students were recruited through local contacts at four universities, two in each target country, through a stratified sampling method, with the criteria that participants were final year, full-time undergraduate students graduating from different degree courses. This allowed some common ground between the participants, but ensured that our conclusions could be as representative as possible across different subject areas (Seale et al 2004: 69). A random selection from the potential candidates was then made by university officials. Only two participants were recent graduates and were included in two of the groups, one from Indonesia and one from Brunei, to give a different dimension to the discussion on job search. The gender composition of the group was roughly equal, with 10 male and 12 female students in total. Appropriate consent was sought prior to the session and it was made clear that all contributions would be anonymised and the audio and video recordings would be kept confidential.

Conducted as semi-structured interviews, the questions for the focus group were chosen in advance, but flexibility was built in through careful probing and moderating of the discussion. Care was also taken to ensure that questions were unbiased through the use of open questions and leaving room for the participants to elaborate on issues they saw as important (Robson and McCartan 2015). The key questions of the session directly asked students about their career goals, the motivations behind their aspirations, whether they had made efforts to secure a job after graduation, and if they had access to resources that would aid their job search. Each session lasted between 60 and 75 minutes.

A key limitation of this method was the background of the students interviewed, which leaned heavily towards the humanities, business administration and the social sciences, in particular, economics and finance related subjects. None of the participants were studying the natural sciences, and only a minority were focused on engineering, mathematics or computing. This makes our conclusions more relevant to non-STEM graduates, however this is still reflective of the population of both Indonesia and Brunei, where 80.6% and 61.6% respectively of graduates are in non-STEM fields. Additionally, Rizzo et al (2016) notes in relation to Brunei that humanities and social sciences students make up more of the graduate unemployed than other course graduates; consequently this is not an obstacle to answering our research question.

Table 1: Demographic characteristics of sample

Demographics	**N**	**%**
Sample size	22	100
Country		
- Indonesia	12	55
- Brunei	10	45
Gender		
- Male	10	45
- Female	12	55
Year of Graduation		
- 2020	2	9
- 2021	20	91
Field of Study		
- Arts and Humanities	2	9
- Law	3	14
- Social Sciences, Journalism	4	18
- Business Administration, Finance and Accounting	9	41
- Information and Communications Technology (ICT)	1	4.5
- Natural Sciences, Maths and Statistics	2	9
- Engineering	1	4.5

4.2 Data Analysis

Open questions for the interview were derived as per the theoretical framework on *himmah* and *rajaa* derived from Islamic literature. The interviews of the four focus groups were recorded and transcribed in order to conduct a thematic analysis. Thematic analysis is used for "identifying, analysing and reporting patterns (themes) within data" (Braun & Clarke, 2006). A preliminary analysis was conducted by the researchers in order to become familiar with the data and reflect on its meaning. Next, the participants' responses were open coded, dividing the data into units that reflected certain thoughts, experiences and attitudes. During the second axial coding stage, these codes were grouped according to certain subthemes or categories. Finally in the selective coding stage, these sub-themes were organised according to the overarching themes established by our theoretical framework, as per a deductive approach to thematic analysis. At the conclusion of this process of analysis, a list of topics was generated, and the topics were compiled into categories that were labelled as key findings.

While coding the data, an effort was made to be conscious of potential respondent bias; in answer to some questions, a tendency of participants to follow the first speaker was observed. However, the data showed that this bias was weak and was more evident in later speakers continuing the themes of the discussion set by initial speakers, rather than unwillingness to disagree with previous statements.

The analysis of the interview transcripts painted a picture of the aspirations and behaviour of final year university students as they prepare to enter the job market. The following sections outline the main themes and subthemes that emerged from the data and their implications for understanding graduate unemployment.

5. Findings

The findings of this research are presented in five parts, the first four based upon the primary themes of Alvi's (2021) theoretical framework: Reach, Purpose, *Ilm* and *Quwwah*. Well-being is the final consideration in which the results are categorised in order to adequately answer all facets of the research question.

5.1 Reach

Diverse and evolving aspirations, but lacking a clear goal – Although interviewees reporting uncertainty among their peers as to what career they would like to pursue in the future, 68% of the respondents did have at least one career aspiration in mind. However few of the respondents were able to articulate a clear career goal that they aimed to work towards, with most simply stating the industry in which they wished to work.

Students' preferences were largely in line with their degree major, and so were oriented heavily towards careers in finance, management, law and research, with one student pursuing a career related to engineering. However, several also expressed their desire to enter non-traditional careers; one respondent cited their interest in artistic professions, while entrepreneurship and start-ups were mentioned several times as an attractive option. One respondent even stated their desire to become a barista and open their own coffee shop, following exposure to professional baristas on social media. The majority of those who did not know what they wanted to do after graduation stated that they would be interested in pursuing further study to give them more time to decide. A minority of students had no plans or direction as to what they wanted to pursue after graduation.

Socioeconomic status as a key determinant – Students' aspirations are shaped to an extent by their family background and socioeconomic security. Several participants mentioned they were expected to support their families, and so were conscious of securing a well-paid job quickly. By contrast, those from wealthier families stated that there was no immediate pressure to secure a job, with many leaning towards further study to buy time. Students in Indonesia also highlighted that family connections were important in securing certain jobs in the legal and commercial fields, and felt limited as they did not have access to those networks. Additionally, a distinction was drawn between students who had access to capital from their family and could start their own business if they were unemployed long term and those who lacked said access.

Conscious of competition – In all the focus groups, students showed an awareness of significant competition in the job market in both countries, as well as concern over the impacts of coronavirus. Many stated that they felt compelled to take the first job offered to them in order to avoid lengthy periods of unemployment. This was also a source of insecurity, with many students feeling unable to differentiate themselves in the job market.

Expectation of short-term unemployment– Most students expressed the expectation that they would be unemployed in the short term, and instead of immediately planning for their career, many had back-up plans for how they would spend their free time. Students expressed a desire to use this period to improve their skillset, engage in volunteer work or start their own business.

> *"A lot of my friends who actually setting up their own personal businesses. Like, they are smart because, you know, they start early before they graduated. They gain the competitive advantage, I guess. Like, it's not like you're waiting for graduation and then you look for income; instead, you're using that income that you've already prepared beforehand to actually support yourself before getting a real job." (Finance student from Brunei)*

However, several students did cite getting a job quickly as the mark of a successful graduate.

Further education as a safety net – Several students in both countries noted that if they could not find or decide on a career, they would instead start a master's degree. In many cases, these were not intended to enhance their skillset or even related to their field, with one student who expressed an interest in epidemiology stating his plan to pursue an MBA. This was frequently cited as a strategy to buy time.

Aspirations for a supportive work environment and skill development – Students' priorities in a potential job role leant largely towards a work environment that would be supportive of graduates and allow them to develop their skills. Opportunities for progression and a role that allowed them to maintain a work-life balance were also ranked highly. Many students were notably keener to pursue these characteristics over salary, with students in Brunei stating they would be willing to accept minimum wage if other criteria were met. Students also expressed a desire to work in a field of their interest and contribute to their community. There was also evidence of such preferences being guided by religious precepts; students were conscious of opting for a career that was *halal* (permissible according to Islamic law) and guided by Islamic norms.

5.2 Purpose

Students are motivated by personal interest and family considerations – Participants were generally studying a subject or aspiring for a career that was in line with their passions. However, parental and societal expectations did play a role in determining the kind of jobs many were aiming for, with several highlighting the cultural preference for a government job due to perceptions of its security. Additionally, students who were expected to support the family after graduation were heavily influenced by their parents' preferences, with some expressing a desire to be able to follow their own dream. Nevertheless, a few students suggested that expectations were changing and that parents were becoming more open-minded towards their children opting for non-traditional careers.

Religion as a motivation – Islam significantly shaped students' motivations in both countries, particularly in Indonesia. Participants cited their desire to give back to society as stemming from a religious injunction to do good. Many also highlighted that working is a duty in Islam and expressed a sense of religious responsibility to care for their family. Some were also motivated to go into particular careers for the sake of Islam, such as Islamic finance or lecturing in the Islamic sciences. One student was particularly motivated by the Islamic injunction to care for the environment for his aspiration to develop solar powered panels:

> *"I'm a mechanical engineering student, so is not really related with Islam. But for me, by contributing to the humanity is my way of giving back to Islam itself. So, as I said, renewable energy again, we are basically saving the Earth from global warming, from oil depletion." (Engineering student from Brunei)*

5.3 Ilm

Lacking employability skills – There was an underlying feeling amongst final year students of being unprepared for the job market, with many decrying the disproportionate focus on grades rather than applicability. Students complained of the highly theoretical nature of their studies, scarcely providing technical skills that would give them a competitive advantage.

> *"We are more into theory base than technical base. And also it's very hard; the working world is very competitive because hundreds of people are applying for one to two slots of jobs. So when the unemployment rate is higher, most people blame the youth for being choosy of the job." (Finance student from Brunei)*

Those students that had taken part in an internship or university project that had them partake in a real-world project unanimously found the experience beneficial, citing the development of practical skills in particular. Those that did not have the opportunity to do an internship or acquire work experience as part of their studies expressed the desire to do so.

> *"I have to say what I was learning in college didn't actually determine my internship performance. Instead, I was required to learn new things from the company. And perhaps, I think*

> *that this opportunity has led me to gain some knowledge, what I have not learned in college, and I appreciate that because the company provided some training for new employees." (Business student from Indonesia)*

Alumni as a core resource – Final year students tended to look towards alumni to ask questions and seek advice on potential careers. This was particularly evident in Indonesia, where students highlighted that alumni were best placed to advise them as they had been through the same experience. However, several expressed a desire to have access to alumni through more formal channels, rather than solely through friendship networks or student societies.

University resources insufficient or unknown – Most students expressed dissatisfaction with the resources offered by their universities. Participants from one university were completely unfamiliar with the concept of a careers centre, with no such service offered on campus, whilst students at another school said they had been unaware of the existence of a careers centre for an entire year. Generally, university careers services were said to be infrequently updated with opportunities or were focused on particular careers and did not offer broad support. Universities did not otherwise give guidance on preparing job applications, resumes or preparing for interviews, although many expressed their desire for this service. Additionally, where career events were held but attendance was not mandated, students often failed to attend.

LinkedIn as an emerging resource – Social media is playing an increasingly significant role in connecting students to available jobs. Many students referenced LinkedIn as a site they had used to apply to jobs, with one student in Indonesia mentioning having applied to a role through Instagram. Both platforms were also used by participants to research different firms and workplace culture. Students also used LinkedIn to expand their professional network and even make transnational connections to discuss fields of mutual interest.

5.4 Quwwah

Lack of preparation – Although a majority of the students had a particular career goal in mind and knew where to look for work, only a minority had begun a proactive job search. Several students explained that most firms, including those in the public sector, did not consider applications from university students until they had completed their studies, so the graduate positions they could currently apply to were limited. However, most had additionally not attempted to apply for internships or any temporary work placements, although they acknowledged that the experience would be beneficial.

Part of this complacency stemmed from a lack of confidence. Several participants expressed feeling that there was insufficient guidance on how to structure their job application and make their CVs competitive, with students in Indonesia feeling self-conscious of how they would make themselves stand out in a crowd of fresh graduates.

> *"I don't know if it's just insecurity acting up. Or maybe it is true that I don't have that much experience, or maybe my CV is not that good compared to my competitors. A lot of them also have connections in the sense of they know seniors who can give them tips on how to improve their achievements, their CV or their skills in the interviews, for example." (Law student from Indonesia)*

However, many students had no clear reason as to why they had not started applications, with several admitting that they believed they were late in their efforts.

Prioritising skills development – Given the consensus that graduates were lacking in the technical and soft skills useful in the workplace, there was enthusiasm amongst students for enhancing their skill set. Several students mentioned that they had either started or were planning to improve their grasp of foreign languages, do volunteer work, take online short courses and learn new IT programmes. These plans were also relevant in the context of facing short-term unemployment due to the pandemic, as well as being a path that older siblings or friends had taken when they were unemployed.

> *"So for maybe one to two years of being unemployed, what my friend did was involve himself in volunteer work; [we can] improve our soft skills, maybe in terms of presentation, dealings with the communities and give back to the communities by volunteer work." (Applied Mathematic and Economics student from Brunei)*

> "I'm considering to take courses or training in data science sites, such as Google Data, Studio and Python, to improve my skills and portfolio." (Business student from Indonesia)

Additionally, several students in both Indonesia and Brunei shared their plans to start a small business from home, particularly if they were unable to secure a job in the short term. Most saw this as a temporary path to sustain their income, however, some were attracted to entrepreneurship in the long run and believed it would be a beneficial experience.

Lacking inspiration – Several students noted that universities had made attempts to invite speakers and former alumni to discuss future career options with students. However in many cases, these events were unknown or students did not have the motivation to attend. Even when these speakers were integrated into the course schedule, the motivational effects seemed to be short-lived, with the emphasis on the student to reach out should they need more support.

5.5 Well-being

Unemployment as a source of anxiety – Most of the students admitted that, when faced with long-term unemployment, they would likely experience anxiety and/or self-esteem issues. However, as short-term unemployment was expected, many did not see themselves as initially being too worried if they were unable to find work. Students cited parental and societal expectations as being a source of pressure in the long run, although a distinction was evident; those from wealthier families seemed more prepared to wait until a suitable job presented itself. Islam was also seen as relevant to overcoming anxiety; students from three out of four of the groups emphasised the importance of having faith in God's plan and their conviction that their worldly provision (*rizq*) had been decreed.

> *"Allah told us to work, right? To fulfil our needs, to fulfil our family needs. Even though I have decided my future is to become an accountant, Allah's plan is better than mine. So when I fail, I believe that Allah has best destiny for me. And there are everything has a reason to happen." (Economics student from Indonesia)*

Unemployment as a source of opportunity – Many students said they would use unemployment as an opportunity to develop their skills and narrow down their area of interest. Some had plans to start a business to sustain themselves during this time, and most expressed their desire to maximise their free time by taking short courses or improving their language skills.

6. Discussion

The range of responses highlighted thus far point to the need for nuance in evaluating these findings against the theoretical framework. Factors as diverse as aspirations, motivations, and knowledge cannot be explained or controlled based on one factor. Rather, understanding the interaction between the themes identified in the theoretical framework can highlight the varied services that students require based on their specifics needs.

This variation is clearly evident when evaluating students' ambitions, as defined by the reach and purpose themes. In terms of reach, most participants stated an interest in a career sector and a minority expressed a particular goal that they were committed to; examples included careers in Islamic economics, becoming a university lecturer and establishing Brunei's first solar panel company. Ambitions were largely determined by areas of personal interest, as well as familial expectations and, to a lesser extent, friendship and social networks.

This supports the idea that students' ambitions were guided by exposure to different professions; one student from Indonesia was keen to become a barista after watching videos by professional baristas on YouTube. Several students also applied to roles they saw on LinkedIn although they were unaware of the existence of such positions before.

However, as most students simply referred to the sector they would apply to, in the absence of any clearly articulated goal or specific motivation, ambitions cannot be considered to be particularly high. Several participants had only settled on their goal in their final year of university, suggesting in general a more laid-back approach. Many also expressed a societal sentiment of 'going with the flow', which many confirmed by stating their willingness to take whatever job is offered, rather than cultivating high aspirations. Such students lack the purpose to be positioned on the top-right quadrant of Figure 1, and so have not attained true *himmah*.

The findings additionally indicate that purpose is a prerequisite to having high reach. The minority of participants who did articulate a clear goal also had a strong motivation behind their ambition. Those who did not have an exact career path in mind also spoke passionately about the importance of their chosen career sector, the desire to support their family, or religion as a driving force. They had some level of purpose behind their interest, even though they lacked high reach. However, there was no student who was expressed a high reaching ambition but lacked purpose. This suggests that, as per Figure 1, high aspirations must be based on an underlying purpose. Many students had strong motivations, but failed to go the extra step and articulate a clear goal.

In relation to *himmah*, the varying levels of *ilm* and *quwwah* among the participants pointed to students falling into two main groups. On the one hand, participants expressed a feeling of general uncertainty amongst their peers, including those who had a preferred career industry in mind. This speaks to a lack of awareness of the overall process of job seeking; thus, students in the first group have *tamannah* – a vague hope – but are unaware of the course of action they must take in order to achieve their goal. They occupy the top left quadrant of Figure 2.

This was particularly evident among students in Indonesia who did not feel prepared to enter the job market, citing external factors on one hand, such as steep competition, the need for connections, and a lack of capital, and on the other, a lack of emphasis on employability skills in their degree programme and poor career advice. This explains why students who participated in an internship or work project unanimously found the experience beneficial by exposing them to what they considered real work situations. This is indicative of a combined lack of *ilm* and *quwwah*; students lacked some degree of knowledge as to how to make themselves stand out, which led to low confidence, and in turn resulted in few having the strength of intention needed to apply for jobs.

However, on the other hand, most students had no clear reason as to why they had not started any kind of preparation for applying to prospective jobs. In each focus group, students were notably keener to share their plans for their prospective period of short-term unemployment than their attempts made at securing employment. This again highlights a lack of *quwwah* that, in many cases, was compounded by the lack of a clearly defined goal. Students in the second group are in a state of *wahm*, or delusion; they have the knowledge to start at least a basic job search, but lack the strength of intention. They can be considered to occupy the bottom right quadrant of Figure 2.

With regards to religion, the findings highlight the widespread impact of Islam on students' reach, but more so on purpose and well-being. In every focus group, participants mentioned the importance of contributing to a certain field in the spirit of Islam, especially those who wanted to enter a field related to Islamic finance or other religious disciplines. Islam acted as guidance for the kinds of careers they aspired towards, with several participants conscious of certain roles that would be considered impermissible, such as those that involved *riba* (usury). Religion was also a source of consolation in the event of unemployment. This suggests that rooting an intervention in Islam can aid in improving both well-being and strength of purpose.

7. Implications for policymakers

These findings present several implications for both policymakers and tertiary education institutions. Firstly, students' ambitions need more clarity in order to be actionable. Greater exposure to different roles, as well as harnessing the passion most students had for their degree major, can stimulate higher aspirations and motivations. Secondly, the attention students gave to religion suggests that this could be used to enhance a sense of purpose behind their chosen role.

Thirdly, external economic constraints and concerns about education quality suggest that a joint strengthening of *ilm* and *quwwah* is necessary. Students require additional, job search-specific support in order to increase their confidence and help them stand out against other competitors. This could include guidance on writing cover letters, interview performance and enhancing soft skills. Additionally, the use of alumni, already a trusted resource, to guide and motivate students through a mentorship scheme would be an effective way to ensure students are making progress.

However, it must be emphasised that the range of issues demonstrated in the findings point to the need for flexibility in these solutions. Given the range of positions that students can occupy on both the graphs of *himmah* and *rajaa*, a one-size-fits-all approach is insufficient. Some element of personalisation will be crucial for raising individual aspirations and strengthening *quwwah*.

8. Conclusion

This research set out to establish the prevailing attitudes and behaviour toward graduate unemployment in Indonesia and Brunei. Using the themes established by the Islamic literature regarding aspirations and actions – namely, reach, purpose, *ilm* and *quwwah* – it evaluated four focus groups with final year university students.

The findings of this study suggest that students lack *'uluww ul-himmah*. While most participants spoke of a career sector they had in mind, few demonstrated evidence of a clear ambition or a high reach. Most participants demonstrated strong purpose, whether driven by a desire to provide for their family, their personal interest or religion, suggesting purpose is a prerequisite to cultivating a high reach. However, these students did not go as far as to match their reach and purpose in a defined goal.

A significant lack of *quwwah* was observed amongst participants; few had started a job search or made an effort to secure temporary work or internships. There was often more preparation for an expected period of short-term unemployment than efforts made towards job seeking. This again corresponds with the Islamic literature on *rajaa*; few students had both the knowledge and strength of intention to work towards their goal.

The role of religion as a source of purpose and its potential to improve well-being during periods of unemployment was another key finding of the focus groups. This supports the premise of this research, namely that grounding interventions in religion would be beneficial as it appeals to the existing beliefs and persuasions of students.

This research suggests that a flexible approach is required in order to build upon the areas that are lacking for particular students. Some level of personalisation, ideally through mentorship, would fit this description. Interventions should focus on giving students' ambitions more clarity and rooting purpose in religion more firmly. Finally, in order to work towards *rajaa*, students must be supported through the process of job seeking. Formalising channels through which alumni can offer guidance on job search strategies, applications and interviews would help students overcome their apathy and enter the job market as confident graduates.

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The Threshold Effect of Covid19 on Shariah Indices: an Empirical Analysis of GCC Countries

Mohammad Irfan[1], Zakir Hossen Shaikh[2] and Adel Sarea[3]

ABSTARCT

This paper examines the volatility of Shariah indices of the gulf cooperative council due to coronavirus. Do GCC Shariah indices that are affected by the bad news of coronavirus? and attempts to analyze the impact of (Cov-NC) and (Cov-DC) on the movements of Shariah indices. The study used the GCC Shariah Indices viz., S&P Domestic Shariah of each country separately. New corona cases (Cov-NC) and new death cases (Cov-DC) are the dependent and independent variables used from Jan 1, 2020, to Dec. 31, 2020. The threshold-GARCH model is used to make the study more significant in terms of volatility in stock index prices due to the outbreak of the pandemic. The analysis shows that there is a negative leverage effect of bad news has more than the impact on conditional variance than good news. Here, GCC Shariah Indices are impacted due to coronavirus (Covid- New cases, Covid death cases) news spread in the market. Diagnostic analysis is based on AIC, SIC, and HQC criteria. Bahrain, Kuwait, Oman Shariah indices are lower values in comparison to the higher values of Qatar, Saudi Arabia and UAE Shariah indices. At-last T-GARCH model is more suitable for Bahrain, Oman, and Kuwait Islamic indices.

ملخص

تستكشف هذه الورقة البحثية تقلبات المؤشرات الشرعية لدول مجلس التعاون الخليجي بسبب فيروس كورونا. هل تأثرت المؤشرات الشرعية لدول مجلس التعاون الخليجي بأخبار فيروس كورونا؟ وتحاول تحليل تأثير حالات كورونا الجديدة (Cov-NC) و وفيات كورونا الجديدة (Cov-DC) على تحركات هذه المؤشرات. واستخدمت الدراسة المؤشرات الشرعية لدول مجلس التعاون الخليجي، وهي مؤشر الشريعة المحلية ستاندرد آند بورز لكل دولة على حدة. وتعتبر حالات كورونا الجديدة ووفيات كورونا الجديدة المتغيرات المستقلة وغير المستقلة المستخدمة من 1 يناير 2020 إلى 31 ديسمبر

[1] Department of Management Studies, CMR Institute of Technology, Bangalore, India. E mail: drmohdirfan1986@gmail.com/ irfan.m@cmrit.ac.in
[2] Commercial Studies Division, Bahrain Training Institute, Ministry of Education, isa Town, Bahrain. Coresponding Author E mail : skzakir123@gmail.com / zakir.shaikh@bti.moe.bh
[3] Department of Accounting and Economics, College of Business and Finance, Ahlia University, Bahrain. E mail : adelsarea@yahoo.com/asarea@ahlia.edu.bh

2020. ويستخدم نموذج العتبة-غراتش لتكون الدراسة أكثر جدوى من حيث التقلب في أسعار مؤشر الأسهم بسبب تفشي الوباء. ويُظهر التحليل أن هناك تأثيرا سلبيا للرافعة المالية للأخبار السيئة التي لها تأثير أكبر على التباين الشرطي أكثر من تأثير الأخبار الجيدة. وهنا، تتأثر المؤشرات الشرعية لدول مجلس التعاون الخليجي بسبب انتشار أخبار فيروس كورونا (حالات كورونا الجديدة، وفيات كورونا الجديدة) في السوق. ويعتمد التحليل التشخيصي على معايير SIC (معيار معلومات Schwarz) و AIC (معيار معلومات Akaike) و HQC (معيار معلومات Hannan-Quinn). وتعتبر مؤشرات الشريعة الإسلامية في البحرين والكويت وعمان ذات قيم أقل بالمقارنة مع القيم الأعلى لمؤشرات الشريعة الإسلامية في قطر والمملكة العربية السعودية والإمارات العربية المتحدة. كما يعتبر نموذج T-GARCH أكثر ملاءمة للمؤشرات الإسلامية في البحرين وعمان والكويت.

ABSTRAITE

Ce document examine la volatilité des indices de la charia du conseil coopératif du Golfe en raison du coronavirus. Les indices Sharia du GCC sont-ils affectés par les mauvaises nouvelles du coronavirus ? et tente d'analyser l'impact de (Cov-NC) et (Cov-DC) sur les mouvements des indices Sharia. L'étude a utilisé les indices Sharia du CCG, à savoir le S&P Domestic Shariah de chaque pays séparément. Les nouveaux cas de corona (Cov-NC) et les nouveaux cas de décès (Cov-DC) sont les variables dépendantes et indépendantes utilisées du 1er janvier 2020 au 31 décembre 2020. Le modèle GARCH à seuil est utilisé pour rendre l'étude plus significative en termes de volatilité des prix des indices boursiers en raison de l'apparition de la pandémie. L'analyse montre qu'il existe un effet de levier négatif des mauvaises nouvelles qui a plus d'impact sur la variance conditionnelle que les bonnes nouvelles. Ici, les indices Sharia du CCG sont affectés par les nouvelles concernant le coronavirus (Covid- nouveaux cas, Covid cas de décès) diffusées sur le marché. L'analyse diagnostique est basée sur les critères AIC, SIC et HQC. Les indices Sharia de Bahreïn, du Koweït et d'Oman sont inférieurs aux valeurs plus élevées des indices Sharia du Qatar, de l'Arabie Saoudite et des EAU. Le dernier modèle T-GARCH est plus adapté aux indices islamiques de Bahreïn, d'Oman et du Koweït.

JEL Classifications: C22, C51, C58, G15

Keywords: Covid19, GCC Shariah Indices, T-GARCH models, Volatility, and Forecasting.

1. Introduction

As 11 March 2020, the announcement date of coronavirus (Covid19), the World Health Organization (WHO) officially declared the coronavirus as a Nobel disease and breakout to be a global pandemic. The cases of coronavirus were surpassed 500,000 and it rises continue. The whole world suffering from this disease, over 170 countries confirmed the cases of coronavirus (WHO, 2020). The Covid19 breakout has had clearly identified the significant impact on the world economy. Different countries were applying different strategies to protect their people, resources, and the economy as well (Albulescu, 2020). Some countries applied short-term quarantine policies strictly followed it and blocked all-economy resources throughout the country. It observed in long-term mass unemployment, industrial breakdown, business failure, aviation, and tourism stuck thought the world. The people certainly faced hardships due to coronavirus (Zhang, Hu, & Ji, 2020). The new regime work on the intraday volatility play role in the substantially, the historical volatility is going slow in the covid19 event. The coronavirus has reduced the global price of oil. Saudi Arabia has begun the war of oil pricing against Russia on 9 March 2020 flooding markets full of oil, it was the 20% downfall in the Oil price market, which creates pressure on the financial market (Arezki, Fan & Nguyen, 2020) and (Gaffen,2020). Covid19 transmission in GCC and European Union countries focused on the various strategies applied to control the spread of coronavirus. The government is enhancing an integrated approach to support the user-centric preventive strategies, motivation, and blend of awareness creation (Alanzi, et al., 2021). Although, Covid19 has a high recovery rate, creating the strategies which suppressed the coronavirus cases and containment zone in GCC nations (Malek, 2020). Bahrain was the first country to react to the coronavirus cases transmission, all Covid19 cases as emergencies Feb 2019. UAE received the coronavirus case on the 29 Jan 2019, UAE government announced covid19 as pandemic (Alandijany, Faizo, & Azhar, 2020).

The Effects of coronavirus has not given space to the GCC countries as well, so research has to check the threshold effect of covid19 on the GCC Shariah Indices. The economy of all six countries going down but recovery fast. Some of the glimpses are incorporated. GDP of Bahrain stated the clear picture of the downturn, which is 2.1 in Jan 2020 going to slip to -3.2 in April 2020. Bahrain and UAE banks are extended the deferment on monthly loan payments. On the positive side of Bahrain is the highest recovery rate of the Covid-19, with more than 51% as of May 3, 2020. It will also face pressure on its economy as the coronavirus spreads. Bahrain's economy is expected to grow in 2020 by -2.5%, down by 4.6 percentage points as compared with the earlier forecast (World Bank, 2020). It observed that the S&P Bahrain Shariah index started to fall as the Covid19. Kuwait's economy is expected to grow in 2020 by -3.5%, down by 2.5 percentages. If we look at consideration of GDP of Oman, it was Jan 2020, 3.7, and -2.5 April 2020. Oman tries to gear up from the corona crisis, there two full-fledged Islamic finance banks, Bank Nizwa and Alizz Islamic Banks are working during the coronavirus. The expected GDP of Qatar was 2 it's down by -2.6. Saudi- Arabia's GDP was 1.9 in Jan 2020; it slips to -2.3 in April 2020. Saudi banks also give the three months deferred payment loan to the client. Saudi Arabia's market struggled 18.33% due to the spread of coronavirus, it is working hard to come from the corona crisis. The kingdom of Saudi Arabia, as a powerhouse of Islamic finance has taken maximum measures to stabilize its finance industry. UAE growing GDP was 2.6 in the month of January 2020 downturn to -3.5 in the April 2020 (Hidayat, Farooq, & Alim, 2020).

The study investigated the financial uncertainty of financial factors of conventional and Islamic indices. Shariah indices screening the Riba, Gharar, and Mysir. The outcome suggests that Islamic indices are less uncertain than the conventional indices. The financial uncertainties have no impact on their Islamic and conventional indices. Islamic indices are low volatile in comparison to the conventional indices. Short-term relationship predicted in the indices. Which has given the benefits to the investors to select the portfolio (Alahouel & Loukil, 2020).

GCC financial market focused on the three reasons. First, previous studies considered East Asia, the USA, and Europe. So that there is a need to identify the coronavirus outbreak impact on the GCC Shariah financial market. Second, GCC nation, now facing dual problem, covid19 and oil price crisis (Al-Maadid et al., 2020). Third, the revenue of export and import of oil, which has a direct impact on the GCC Economies, GCC stock market directly respond to the coronavirus cases and oil prices volatility. Even though, GCC countries are mainly dominated by domestic investors as well. And also, a significant share on the basis of profit and loss sharing is limited opportunities (Istiak and Alam, 2020).

Recently, numerous studies have been published on the coronavirus, as we are aware about the covid19 impact is dearth study on several sectors like Oil price, economic parameters, financial markets, sustainability in crisis, the downturn of currency, etc. This study focused on the GCC Shariah indices that are affected by the bad news of coronavirus in the Gulf countries. This paper attempts to analyze the impact of (Cov-NC) and (Cov-DC) on the moments of Shariah indices of Golf countries. The objective of the study is as follows: -

To investigate the impact of Coronavirus on Gulf Cooperative cooperation (GCC) Shariah Indices.

To measure the impact (Cov-NC) and GCC Shariah Indices.

To identify that impact (Cov-DC) and GCC Shariah Indices.

2. Literature review

A number of previous studies have been conducted related to the crisis, which is a subprime crisis, financial crisis, world hunger, poverty, global warming, and Terrorism. The impact of these crises on the world economy. In continuation of the world crisis, the Covid-19 pandemic provides the most compelling explanation for its unprecedented stock market impact. There is a lack of empirical studies on Shariah investment in the GCC Nation. It constrains the possibility of finding many studies examining the forecasting and volatility of the stock market along with the Corona crisis.

2.1 Background of Theory

The measurement of volatility, Arch family has been used, in which event study has been taken place for concluding the objectives of the study. T-Garch model is to divide into two parts first is mean-variance, second conditional variance, it also disjoints and intervals, it is also known for the piecewise linear function for the conditional standard deviation (Zakoian, 1991). The conditional variance discussed by (Glosten et al. 1993). The influence of positive and negative innovations (news) on the volatility is differentiated. It will be the impact of good and bad news on the other things. An extended version of threshold Garch including the lagged conditional standard deviations as a regressor (Rabemananjara and Zakoian 1993), is the reason known as the T-Garch model. It also gives the co-variance stationery instead of a piecewise linear function of volatility (Gouriéroux and Monfort 1992), Antoniou et al (1997). (Majid & Kassim, 2010) the study has ethical investment to diversify the portfolio of Islamic stock market. This portfolio has given the economic grouping of developed and developing countries. The study inferences the limited benefits to diversifying the investment within the same economic grouping. Islam et al. (2012) this study examined the diagnostic analysis, to check the forecasting by using the ARCH family model. Another hand researcher has also checked the volatility on the behalf of based root models like MSE, MAPE, Theil-U, and Linex loss the functional criteria. A non-linear model of volatility used like GARCH, EGARCH, and TARCH also failed to check the volatility. The last simple moving average model fit for the two months to check the volatility of the Dhaka stock exchange. Alam et al. (2013) paper used forecasting volatility of DSE20 and DSE General Indices using the ARCH Family Model on daily basis panel data from 2001 to 2008 and 2008-2011. The return wise both the indices are significant. Results of the study have interpreted that past information influenced future information in the terms of volatility. In the pre-panel data of DSE20 and DSE General, ARCH and PARCH are best-fitted model. Post-panel data EGARCH is a best-fitted model in both indices.

2.2 The Incremental Contribution of the Literature Review

Examined the Covid-19 impact on the GCC nations, its shows that Islamic financial institutions are less exposed to the reflection of the COVID-19 outbreak. GCC Shariah and conventional window financial institutions in Bahrain, Oman, Qatar, Saudi Arabia, and UAE. The outcomes of Saudi Arabia and Oman have not been affected by the COVID-19 outbreak (Akkas & Al Samman, 2021).

It is very early stated that might be other factor contribute to reducing the cases of coronavirus and death cases are also going to high in GCC countries, even though Bacille Calmette Guerin (BCG) vaccination scheduled has been started in addition to the infectivity, morbidity, and mortality (Miller, et al., 2020), (Berg, M.K., et al., 2020). The study investigates the GCC nations wake the global financial crisis and low oil prices using annual data from 2000 to 2016. The outcome revealed that the GCC countries meet the macroeconomic convergence, have greater co-movement of these variables in the GCC. The co-movements increase during the financial crisis and recent low oil prices, which signifies the synchronization of shocks (Cham, 2020).

Covid19 cases are going to increase for the analysis point of view researcher has been used SEIR-PAD model. To check the susceptible, exposed, infected, recovered, super-spreader, asymptomatic infected, and deceased populations in GCC countries. The outcome indicates that covid19 terminated after 200-300 days from the outbreak. It has a strong prediction of coronavirus disease so that health policymakers will take advantage of it (Sedaghat, Oloomi, Malayer, & Mosavi, 2020). The novel coronavirus is economically the costliest pandemic in history, it is more than the financial crisis. This pandemic also heavily declined the equity market of the world. Researchers investigate the new cases and death cases on the daily returns of GCC countries. Results found that new cases are not significant to the return, in spite of its death cases are significant to the returns of the GCC countries (Bahrini & Filfilan, 2020).

Shariah compliant has a viable investment portfolio for the investors to reduce the risk and high returns. Conventional stocks are fit in the efficient portfolio. Shariah and conventional stocks do not improve kurtosis reduction. Shariah compliant stocks are efficient portfolio to sensitize the risk and returns. Islamic stocks are optimum portfolios selection in the normal condition also (Mounir, 2021). The kernel function of spot volatility has been used in the paper to check the microstructure noise in the data. Itosemi-martingale model has proved that Central Limit Theorems (CLT) for the estimation error with an optimal rate. The problems of optimal bandwidth and kernel selection. Observed that the asymptotic variance of the pre-averaging. The study explores the sentiments of GCC stock market and its spillover effect the other stock market into the region. GARCH model has been used for the study, to check the volatility along with the co-integration of GCC stock market applied the Granger causality test. Results of impulse response suggested that Kuwait and Qatar have heterogenetic in the nature. Outcome of the Saudi Arabia and UAE are well integrated in the region, also sentiments of investors are significantly affected by each other (Chowdhury, 2020), (Bora & Basistha, 2020), (Yousef, 2020). The study focused on the Shariah and non-Shariah complaint firms of Malaysia that will provide the profit and loss sharing for the investors. Shariah-compliant has firms value and profitability (Saba, Ariff, & Mohd Rasid, 2021), (Figueroa Lopez & Wu, 2020), (Albulescu, 2020) Sharmin (2019) study focused on the significant impact on the relationship on the sentiments and returns in the GCC stock markets. The result approaches only the behavior aspect of the GCC stock market, avoidance its influence on stock prices. All are aware about all GCC nations have similar cultures and buying behavior of consumers. GCC country's spillover sentiment is potential for foreign investors. This study explores the spillover effects on the GCC stock market by using the VAR-GARCH model. UAE has two separate stock exchanges (Abu Dhabi and Dubai), to check the financial interdependence effect of the 2014 oil crisis, the outcome does not find relationship between (Abu Dhabi and Dubai stock exchanges. In opposite to the Saudi Arabia and Qatar have significant spillover effects. GCC nations have strong positive spillover effects of the 2014 oil crisis on smaller to the large markets (Arin, Caporale, Kyriacou, & Spagnolo, 2019). The study is related to the volatility of the GCC nation, the outcomes show that Islamic indices are less risky than conventional indices. The Garch model of Bahrain stated that less affected by the crisis in comparison to all GCC countries. The financial crisis has impacted the Kuwait and UAE. Islamic indices were not affected by the bad news in the market, meaning that the Shariah index did not observe the low volatility (Miniaoui, Sayani, & Chaibi, 2015). The outcomes of the T-Garch model observed that was not asymmetry in the returns of Bahrain and Oman in comparison to all Shariah indices in the GCC nation. Another hand E-Garch model is significantly working in Bahrain, Saudi Arabia, Qatar, and UAE, which play the negative coefficient meaning that negative news influences the market more than positive news (P.P. & Deo, 2013). This study related to the GCC nation to find out the volatility on the behalf of the Arch and Garch model, which carried a crisis period, the result stated that crisis can significantly impact Bahrain, basically in both conventional and Shariah indexes. It happened because of Bahrain has been exposing to the financial sector of an overseas country (Sukmana & Hidayat, 2012).

3. Research methodology

The study used the GCC Shariah Indices viz., S&P Domestic Shariah of each country separately. The standard and poor consultancy has given the data of all selected Shariah Indices of the GCC nation (Irfan, 2021). Another hand we have new corona cases (Cov-NC) and new death cases due to coronavirus (Cov-Dc). Threshold-GARCH model is used to make the study more significant in terms of volatility in stock index prices due to the outbreak of the pandemic and lockdown policy adopted by the GCC government. Major findings of the study reveal the volatile nature of GCC Shariah, Cov-NC, and Cov-DC.

3.1 Data

The study aims to investigate forecasting volatility for GCC Shariah Indices, Cov-NC, and Cov-Dc. The study period covers from Jan 1, 2020, to Dec 31, 2020, along with time-series data. The coronavirus new cases and death cases series of all GCC nations collected from the Oxford Martin Programme on Global Development, which is a collaborative database of the University of Oxford researchers and Global Change Data Lab (Our World in Data Organization, 2020).

Table 1: Data Collection of GCC Shariah Indices.

Ticker	**GCC Indices** (S&P Domestic Shariah)	**Data Source**	**Web Sources**
SPSHDBHD	Bahrain	S&P Global	https://www.spglobal.com/spdji/en/indices/equity/sp-bahrain-domestic-shariah/#overview
SPSHDKWD	Kuwait	S&P Global	https://www.spglobal.com/spdji/en/indices/equity/sp-kuwait-domestic-shariah/#overview
SPSHDQAD	Qatar	S&P Global	https://www.spglobal.com/spdji/en/indices/equity/sp-qatar-shariah-domestic-price-index-in-us-dollar/#overview
SPSHDOMD	Oman	S&P Global	https://www.spglobal.com/spdji/en/indices/equity/sp-oman-domestic-shariah/#overview
SPSHDSAD	Saudi Arabia	S&P Global	https://www.spglobal.com/spdji/en/indices/equity/sp-saudi-arabia-domestic-shariah/#overview
SPSHDAAP	UAE	S&P Global	https://www.spglobal.com/spdji/en/indices/equity/sp-uae-domestic-shariah-liquid-35-20-capped-index/

Sources: Authors' estimates

3.2 Methods

In general, the movements of the GCC Shariah indices series are non-stationary, quite random, and not appropriate for the study purpose. The series of GCC Shariah are transformed into returns by using the following equation:

Where:

Rt= Log (Pt/Pt-1) *100

Rt = the rate of return at time

Pt = the stock index at time t

Pt- 1 = the stock index just period to the t

ADF test: To check the stationary of data, then just go to used ADF test (Augmented Dickey-Fuller Test Statistic), Significance of ADF test, standardized that T-test statistic is more than the critical value and p-value is less than 5% (Irfan, 2017), ADF test is necessary to run before doing the Arch family model (Ibrahim, 2019).

$$\Delta y_t = \alpha + \gamma y_{t-1} + \sum_{i=1}^{P} \Delta y_{t-i} + \varepsilon_t$$

Where y_t is being tested series and γ_{t-i} is the 1st difference in the series. Therefore, Ho: $\gamma = 0$ and H1: $\gamma < 0$, these hypotheses are respectively used as null and alternative that the series has a unit root, meaning that it is non-stationary when the ADF test vale is less that critical value (Irfan, 2016), (Enders, 1995).

TARCH Model: This is an extended model of the Garch model, here leverage effect of the bad and good news is analyzed. A Threshold-Garch model with an additional term added to account for possible asymmetries (Brooks, 2008) T-Garch model finds the negative correlation between the past returns and future volatility of the returns. Negative news will affect more than the good news concern Zakoian (1990) and Glosten et al (1993). T-Garch have divided into two parts, mean-variance and conditional variance, meaning that asymmetric response arrival of bad and good news (P.P. & Deo, 2013). The conditional variance is now given by:

$$\sigma_t^2 = \omega + \Sigma_j{}^p{}_{=1} \beta_j \, \sigma^2_{t-j} + \Sigma_i{}^q{}_{=1} \alpha_i \, u^2_{t-i} + \Sigma^r{}_{k=1} \Upsilon_k \, u^2_{t-k} \, I_{t-k}$$

4. Results and analysis

Tables 2: ADF Test of GCC Shariah Nation with Cov-NC, Cov-DC.

GCC Nation	Name of Variables	Level	t-test	P-value	coefficient	1% level	5% level	10% level
Bahrain	Bahrain Shariah Index	After 1st difference	-3.681	0.005	-0.078	-3.460	-2.874	-2.574
	Covid New Case (Cov-NC)		-13.507	0.000	-3.579	-3.460	-2.875	-2.574
	Covid Death Case (Cov-DC)		-13.966	0.000	-3.551	-3.460	-2.875	-2.574
Qatar	Qatar Shariah Index	After 1st difference	-14.960	0.000	-1.009	-3.461	-2.875	-2.574
	Covid New Case (Cov-NC)		-15.485	0.000	-1.720	-3.461	-2.875	-2.574
	Covid Death Case (Cov-DC)		-11.878	0.000	-2.737	-3.461	-2.875	-2.574
Kuwait	Kuwait Shariah Index	After 1st difference	-16.950	0.000	-1.137	-3.460	-2.874	-2.574
	Covid New Case (Cov-NC)		-10.083	0.000	-2.965	-3.461	-2.875	-2.574
	Covid Death Case (Cov-DC)		-11.075	0.000	-3.292	-3.461	-2.875	-2.574
Saudi Arabia	Saudi Arabia Shariah Index	After 1st difference	-17.458	0.000	-1.184	-3.461	-2.875	-2.574
	Covid New Case (Cov-NC)		-7.049	0.000	-0.910	-3.461	-2.875	-2.574
	Covid Death Case (Cov-DC)		-13.799	0.000	-2.382	-3.461	-2.875	-2.574
Oman	Oman Shariah Index	After 1st difference	-17.135	0.000	-1.149	-3.460	-2.875	-2.574
	Covid New Case (Cov-NC)		-5.247	0.000	-2.359	-3.461	-2.875	-2.574
	Covid Death Case (Cov-DC)		-11.857	0.000	-6.368	-3.461	-2.875	-2.574
UAE	UAE Shariah Index	After 1st difference	-7.854	0.000	-0.857	-3.457	-2.873	-2.573
	Covid New Case (Cov-NC)		-20.796	0.000	-1.276	-3.457	-2.873	-2.573
	Covid Death Case (Cov-DC)		-16.300	0.000	-1.728	-3.457	-2.873	-2.573

Sources: Authors' estimates

Table 2 shows that the values of the ADF test statistic, -32.8119, is less than its test critical value, -3.4134, at 5%, level of significance which implies that all variables are stationary after the 1st difference (Irfan, 2016). The outcomes of ADF test confirms that all GCC Shariah Indices returns series and Cov-NC, Cov-DC are also stationary, because the values of the ADF test statistic is less than its test critical value (Irfan, 2020). The study, which is, reflected the bubbles in the random walk of GCC stock markets, these bubbles are reflected due to the random walk of stock prices. (Manap, Turkhan Ali, Ali, & Azmi, 2014).

Figure 1: Residuals of GCC Shariah Nations.

In the non-linear model, the researcher will try to find out the Arch effect in the data. The volatility in the data will find the prolonged period of the low volatility and prolong period of high volatility in the data so that run the Arch family model (Brooks, 2008).

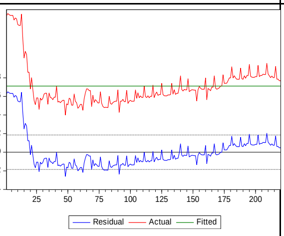
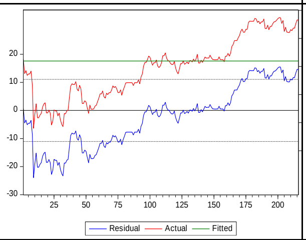
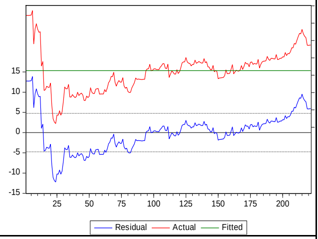
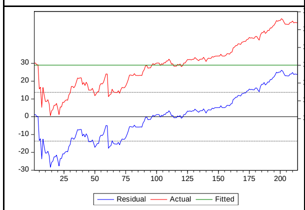
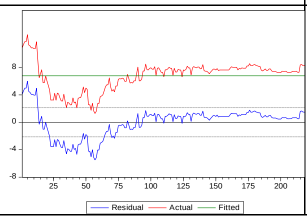
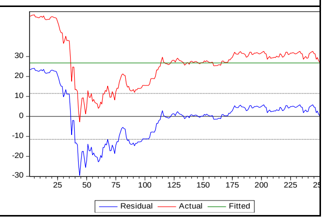
Bahrain Shariah Index	**Qatar Shariah Index**	**Kuwait Shariah Index**
		
Saudi Arabia Shariah Index	**Oman Shariah Index**	**UAE Shariah Index**
		

Figure 1 clearly shows that residuals of low volatility followed by another low volatility for a prolonged period, high volatility residuals are followed by high volatility for a prolonged period. The Arch effect in GCC Shariah indices, in the list of Bahrain, Kuwait, and Oman Shariah index have a prolonged period of low and prolog periods of high volatility. In the case of Qatar, Saudi Arabia, and the UAE Shariah index have a prolonged period of high. Meaning that there is Arch effect on all six Shariah indexes of GCC countries from Jan-Oct 2020.

Table 3: Heteroscedasticity Test of Shariah Index of GCC Nation.

Bahrain	F-statistic	2591.82	Prob. F(1,219)	0.00
	Obs*R-squared	203.78	Prob. Chi-Square(1)	0.00
Qatar	F-statistic	1108.05	Prob. F(1,213)	0.00
	Obs*R-squared	180.33	Prob. Chi-Square(1)	0.00
Kuwait	F-statistic	1028.28	Prob. F(1,219)	0.00
	Obs*R-squared	182.20	Prob. Chi-Square(1)	0.00
Saudi Arabia	F-statistic	1979.59	Prob. F(1,211)	0.00
	Obs*R-squared	192.48	Prob. Chi-Square(1)	0.00
Oman	F-statistic	851.14	Prob. F(1,218)	0.00
	Obs*R-squared	175.14	Prob. Chi-Square(1)	0.00
UAE	F-statistic	2252.80	Prob. F(1,247)	0.00
	Obs*R-squared	224.40	Prob. Chi-Square(1)	0.00

Sources: Authors' estimates

Table 3, the output of Arch Model shows, Null hypothesis is there is no Arch effect, an alternative hypothesis is Arch effect. Therefore, P-value is less than 5% we fail to reject the null hypothesis, accept the alternative hypothesis there is an Arch effect in the GCC Shariah Countr

Table 4: TARCH Model of Covid19 and GCC Shariah Indices

	Bahrain Shariah			Qatar Shariah			Kuwait Shariah			SA Shariah			Oman Shariah			UAE Shariah		
Variable	**COEF**	**z-Stat**	**Prob.**	**COEF**	**z-Stat**	**Prob.**	**COEF**	**z-Stat**	**Prob.**	**COEF**	**z-Stat**	**Prob.**	**COEF**	**z-Stat**	**Prob.**	**COEF**	**z-Stat**	**Prob.**
Conditional Mean Equation																		
C	15.99	191	0.00	173.2	624.8	0.00	56.82	390.1	0.00	146.6	254.3	0.00	51.43	817.3	0.00	128.7	333.8	0.00
Conditional Variance Equation																		
C	0.21	3.62	0.00	0.41	2.70	0.01	1.13	3.95	0.00	1.78	1.51	0.13	0.02	1.78	0.08	0.61	2.82	0.00
RESID(-1)^2	0.81	2.58	0.01	1.06	2.32	0.02	0.88	3.25	0.00	0.73	3.18	0.00	0.45	1.83	0.07	0.60	1.60	0.11
Cov-NC	0.01	2.49	0.01	0.00	-6.65	0.00	0.01	20.46	0.00	0.00	-4.85	0.00	0.00	-2.38	0.02	0.00	-2.42	0.02
Cov-DC	0.10	2.62	0.01	0.01	0.14	0.06	-0.02	-0.38	0.70	0.55	20.06	0.00	0.01	1.01	0.31	-0.52	-4.47	0.00
Log likelihood			-294.6			-685.99			-505.43			-692.82			-290.11			-752
Akaike info criterion			2.717			6.417			4.616			6.540			2.689			6.072
Schwarz criterion			2.825			6.526			4.724			6.650			2.796			6.171
Hannan-Quinn criter.			2.761			6.461			4.660			6.585			2.732			6.112

Table 4, An outcome of the TARCH model represents that the terms, C, are statistically significant in all the indices in conditionally mean equations. The variance equation describes that the RESID (-1)^2, which are statistically significant in All GCC Shariah Indices, implies that past volatility of All GCC Shariah indices is significantly not influencing current volatility. T-GARCH model is also confirming the coefficient positive significance at the 5% level (Sayed & Auret, 2020). The analysis shows that there is a negative leverage effect of bad news has more than the impact on conditional variance than good news. Here, GCC Shariah Indices are impacted due to coronavirus (Covid- New cases, Covid death cases) news spread in the market. Another diagnostic analysis is based on the different criteria like Akaike info criterion (AIC), Schwarz criterion (SIC), and Hannan-Quinn criteria (HQC), all these criteria have lowered the value better will result meaning that Bahrain, Kuwait, Oman Shariah indices are lower values in comparison to the higher values of Qatar, Saudi Arabia, and UAE Shariah indices. At-last T-GArch model is more suitable for Bahrain, Oman, and Kuwait Islamic indices (Nurdany, Ibrahim, & Romadoni, 2021).

4.1 Robustness test of Diagnostic Parameter of Best Fitted T-Garch Model

Now the question is: What about the diagnostic checking of these TARCH models? Before considering, the best-fitted model out of all variables. Investigator verified the diagnostic checking based on three points.

- First, there is no Serial Correlation. Second, Third, there is no ARCH effect.
-

Table 5: Diagnostic Statistics of GCC Shariah Indices, Cov-NC, and Cov-DC

Diagnostics Test	Serial Correction		Heteroscedasticity	
GCC Nation	Q-Stat	Prob.	F-Statistics	P-value
Bahrain	1.650	0.199	1.619	0.205
Qatar	0.947	0.331	0.928	0.336
Kuwait	1.464	0.226	1.436	0.232
Saudi Arabia	0.904	0.951	0.004	0.952
Oman	1.499	0.473	0.000	0.999
UAE	0.045	0.832	0.044	0.834

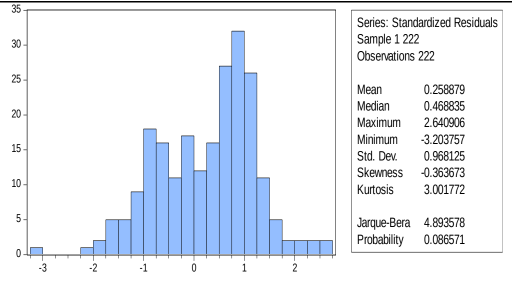
Sources: Authors' estimates

Table 5, Correlogram of Q-statistic standardized residual squared, Null hypothesis- there is no serial correlation in the residuals of P-value is more than 5%. Researchers accept the null hypothesis, meaning that there is no serial correlation in residuals of the TARCH model, now the researcher happy about it because diagnostic point no. one is fulfilling the condition with lag 36. ARCH effect.

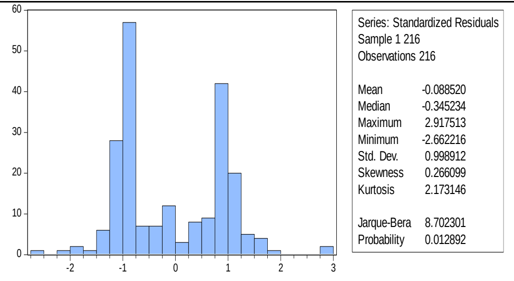
The researcher has used the ARCH LM model to check the diagnostic point number two null hypothesis: there is no ARCH effect, which is desirable. Here the observed P-value is (.205), meaning that which is more than 5%. So cannot reject the null hypothesis rather accept the null hypothesis. Therefore, in this model, there is no ARCH effect this is also a happy situation.

Figure 2: Normal Distribution on GCC Shariah Nation, Cov-NC, and Cov-DC

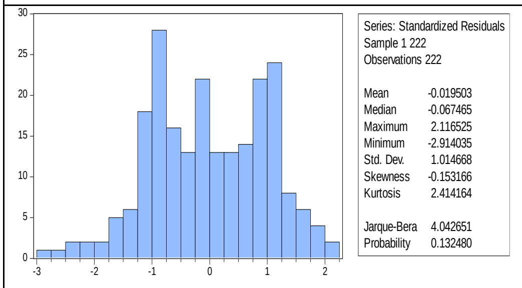
Bahrain Shariah, Cov-NC,Cov-DC



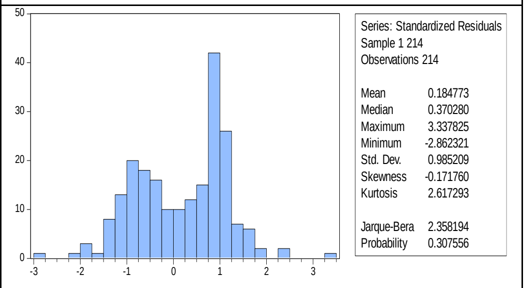
Qatar Shariah, Cov-NC,Cov-DC



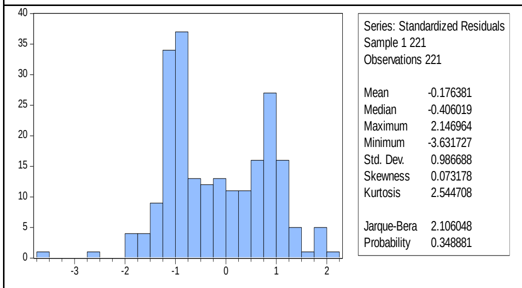
Kuwait Shariah, Cov-NC,Cov-DC



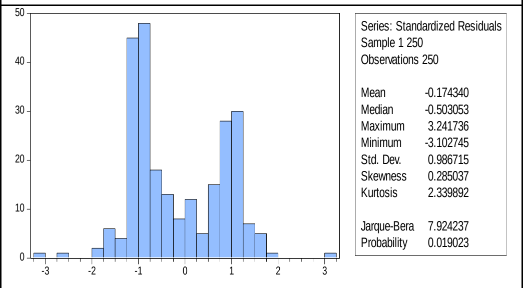
Saudi Arabia Shariah, Cov-NC,Cov-DC



Oman Shariah, Cov-NC,Cov-DC



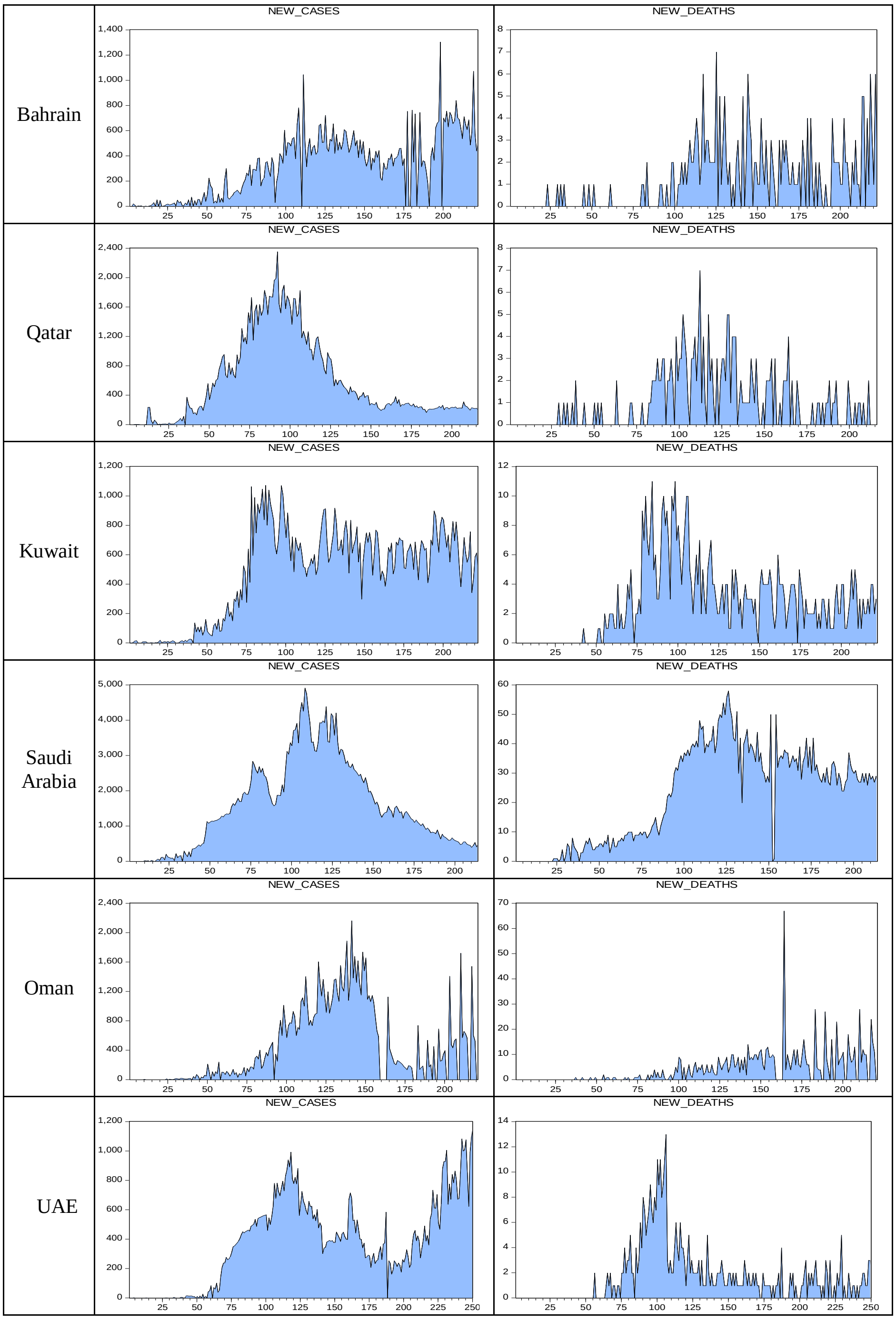
UAE Shariah, Cov-NC,Cov-DC



Hence this model has no serial correlation also this model has no ARCH effect so investigator is happy about it but residuals are not normally distributed so the researcher is not happy about it. However, many economists say so that all though the residuals are not normally distributed we can accept the model. This model has two good things, there is no serial correlation and there is no ARCH effect. So, we can say that a TARCH model is best fitted for the GCC Shariah indices, Cov-NC, and Cov-DC.

This is the last point of diagnostic checking of the best-fitted model in TARCH of GCC Shariah indices. This researcher check will whether the residuals are normally distributed or not? Null hypothesis: residuals are normally distributed, which is desirable. Here the P-value is (0.001992) which is less than 5%, accept the null hypothesis, meaning that residuals are not normally distributed. Here, the P-values of Bahrain, Qatar, UAE are respectively, (0.0995, 0.0128, 0.0190) less than 10%, all three Shariah indices are not normally distributed, which will be not good for the results but P-values of Kuwait, Saudi, Oman Shariah indices are (0.1324, 0.3075, 0.3488) more than 5%, meaning that residuals are normally distributed.

Figure 3: Line Diagram GCC Nations Cov-NC, and Cov-DC



These line diagrams related to the corona new cases and corona death cases from Jan 2020 to Oct 2020 of Gulf cooperation council (GCC) Countries Shariah indices like Bahrain, Qatar, Kuwait, Oman, Saudi Arabia, and UAE.

5. Conclusions

In this study, the TARCH model is used to forecast the volatility of the GCC Shariah indices along with Cov-NC and Cov-DC. Time-series data were used from Jan 1, 2020, to Dec 31, 2020. ADF test was applied for checking the stationary in the data. The results of the TARCH model on Bahrain, Kuwait, Oman, and UAE was positive coefficient along with 5% and 10% level of significance. Meaning that there is the effect of negative news of Cov-NC and Cov-DC on the GCC Sharia nations. The outcomes of the TARCH model in Qatar and Saudi Arabia were negative coefficients along with insignificant levels. Meaning that there is no effect of negative news of Cov-NC and Cov-DC on the GCC Shariah Nations. The study reflected that there exists a tipping point of the finance-growth relationship. Results of the same for this study, there is threshold level results in deceleration of economic growth as excess finance is undesirable (coronavirus) in OECD countries (Manuswamy & Swamy, 2020). It is because of the relaxation added to unlock down policy by the GCC Nations government. The unprecedented pandemic has already brought a number of challenges to the world. Saudi Arabia and Qatar are less unaffected by Coronavirus. In brief, the results conclude that the Coronavirus outbreak has affected Bahrain, Kuwait, Oman, and UAE Shariah prices and increased the volatility in the four countries out of Six GCC Nations and affect the financial system. GCC government will provide the loan facilities to the small business and restructure the debt recovery police for the creditors (Hidayat, Farooq, & Alim, 2020). Policies related to liquidity support will double. Tourism industries are exempted from duties and levies for 3-6 months. Another, all industrial land rental should be exempted for the 3 months. Payment of all types of loans should be deferred from 3-6 months. Small and medium enterprises are exempted to be tenants. GCC Nation moreover based on the Oil with macro financials (Manap, Turkhan Ali, Ali, &Azmi, 2014). Industrialists observed that GCC indices are more performance in comparison to the GCC Islamic indices in 2019 respectively 8.6% and 10.06% annually. The P/E ratio of GCC Countries is 18.22 in comparison to the GCC Islamic indices is 24.50 till the date of September 2020. The beta of GCC countries is 1, in opposition to the 1.1 of GCC Islamic (MSCI Inc., 2020). The practitioner is following the projected Price-earnings ratio of GCC Shariah indices, which is 24.13 trailing to 23.36, it shows that GCC Shariah is the fast recovery from the coronavirus effect (S&P Dow Jones Indices LLC, 2020). GCC Composite Shariah has reported that 9.82% annualized returns even though the world facing the coronavirus economic downfall. It also measured that 39.82% rose GCC Shariah indices since March-October 2020 (S&P Dow Jones Indices, 2020). Gulf Investment Corporation (GIC) said its Shariah-compliant investment vehicle, The Gulf Islamic Fund, ranked first among Shariah-compliant funds investing in the GCC with a 24.6 percent return.

No doubt, Covid19 has an impact on economies and all sectors. It investigates the diversification of the supply chain and finds new opportunities for the end-user will the product and services in the crisis. Ultimately, survival is the issue in the covid19 because it will constant alive for at least five to ten years with us. We will find a way to live with this disease name is a noble coronavirus (Research and Markets, 2020). This paper provides some useful inferences to the GCC Countries designing their financial development strategies and it will be helpful for the industrialist, academician, practitioners, investors, and regulators.

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The Impact of the Public Education Expenditures on Regional Development in Turkey: Evidence from Static and Dynamic Panel Data

Altuğ Murat Köktaş[1], Şükrü Apaydın[2] and Koray Pirçekli[3]

ABSTRACT

This study aims to analyze the impact of public education expenditures on regional economic development in Turkey. For this purpose, we test the hypothesis that there is a strong relationship between education expenditures and economic growth/development using static and dynamic panel data (system GMM) methods. In the analysis, we use annual data on central government education expenditures and regional GDP per capita data for the period 2004–2019 for 81 provinces at NUTS-III level. The findings of the study revealed a positive relationship between central government education expenditures and regional development. In other words, regional development accelerates if education expenditures increase. However, the magnitude of the effect is not as strong as is expressed in the hypothesis: a ten percent increase in education spending only increases economic development by 1.1 percent.

ملخص

تهدف هذه الدراسة إلى تحليل تأثير نفقات التعليم العام على التنمية الاقتصادية الإقليمية في تركيا. ولهذا الغرض، نختبر الفرضية القائلة بوجود علاقة قوية بين نفقات التعليم والنمو/ التنمية الاقتصادية باستخدام أسلوبي البيانات الثابتة والديناميكية (نظام أسلوب اللحظات المعمم (GMM)). وفي التحليل، نستخدم البيانات السنوية حول نفقات التعليم الحكومية المركزية وبيانات نصيب الفرد من إجمالي الناتج المحلي الإقليمي لفترة 2004-2019 لـ81

[1]Corresponding Author, Necmettin Erbakan University, Konya, Turkey, E-mail: altugmkoktas@gmail.com
[2]Nevşehir Hacı Bektaş Veli University, Nevşehir, Turkey, E-mail: sukruapaydin@gmail.com
[3]Ministry of Treasury and Finance, Ankara, Turkey, E-mail: koraypircekli06@gmail.com

مقاطعة على المستوى الثالث من تسمية الوحدات الإقليمية للإحصاءات (NUTS-III). وكشفت نتائج الدراسة عن علاقة إيجابية بين نفقات التعليم الحكومية المركزية والتنمية الإقليمية. بمعنى آخر، تتسارع وتيرة التنمية الإقليمية مع زيادة نفقات التعليم. ومع ذلك، فإن حجم التأثير ليس قوياً كما تم التعبير عنه في الفرضية: إن زيادة الإنفاق على التعليم بنسبة 10% لا تؤدي إلا إلى زيادة التنمية الاقتصادية بنسبة 1.1%.

ABSTRAITE

Cette étude vise à analyser l'impact des dépenses publiques d'éducation sur le développement économique régional en Turquie. À cette fin, nous testons l'hypothèse selon laquelle il existe une relation forte entre les dépenses d'éducation et la croissance économique/le développement en utilisant des méthodes de données de panel statiques et dynamiques (système GMM). Dans l'analyse, nous utilisons des données annuelles sur les dépenses d'éducation du gouvernement central et des données sur le PIB régional par habitant pour la période 2004-2019 pour 81 provinces au niveau NUTS-III. Les résultats de l'étude ont révélé une relation positive entre les dépenses d'éducation du gouvernement central et le développement régional. En d'autres termes, le développement régional s'accélère si les dépenses en matière d'éducation augmentent. Toutefois, l'ampleur de l'effet n'est pas aussi forte que ne l'exprime l'hypothèse : une augmentation de dix pour cent des dépenses d'éducation n'accroît le développement économique que de 1,1 pour cent.

Keywords: Public education expenditures, Regional development, Static panel data, Dynamic panel data.

1. Introduction

Education is considered an indispensable component that aggravates people's knowledge in society and makes them more qualified, as well as a phenomenon that raises the living standards of individuals as a result of economic development (O'Donoghue, 2017; Barro, 2002). Accordingly, education is well-known to have multi-dimensional impacts such as developing political and democratic social awareness, comprehending complex problems, assisting technological progress, and discovering cultural dispositions (Bowen, 1943). Educated people participate in elections, take active roles in political or non-governmental organizations, usher in defense of their rights democratically, assert and express their opinions in democratic debates and enlighten the society (Weisbrod, 1964). Therefore, in societies with advanced educational levels, crime rates tend to decline rapidly, administration attains a more democratic feature, and it becomes easier to ensure economic and political stability (Krueger & Lindahl, 2001). As a result of education, unemployment decreases, household incomes rise and, in turn, the existing crime rates in society fall (Alexander and Simmons, 1975). Similarly, it is claimed that younger people with higher educational levels are less prone to commit crimes (Spiegleman, 1968). Therefore, if individuals are not provided with enough education opportunities, the increasing population pressure would elevate the unrest of the people and consequently undermine economic development (Malthus, 1836). Therefore, the right to education was included in Article 26 of the Universal Declaration of Human Rights published on December 10, 1948, and it was emphasized that the availability of the right to education implies a human right for every individual. Therefore, education has universal importance since it involves a human right.

Improving human capital means aggravating the knowledge, skills, and capacity of every individual in society (Harbison & Myers, 1964). According to Weisbrod (1964), there was evidence of lower expenditures on education wherever migration occurred. Accordingly, the maturation of people, the transfer of knowledge, the improvement of skills, and the acquisition of human virtues are among the main benefits of education, and beyond that, it is claimed to have also individual and social gains (Atkinson, 1983). For instance, an additional rise in the level of education provides individuals with the opportunity to find jobs with high value-added, and the differences in incomes increase (Breton, 2003). According to empirical analyses that investigate whether allocating more resources to education positively affects the distribution of income in a country, public education expenditures reduce income inequality, and therefore it has been suggested that allocating more resources to education can be a means of reducing the level of income inequality in a country (Sylwester, 2002). Similarly, it is claimed that those with higher educational status are more successful than those with lower educational status in subjects such as effective use of tools and equipment used in daily life, bill payments, and life planning (Perlman, 1973). External benefits of education can be examined under two main categories. The first one involves the benefits of education that disperse over the entire society as a whole, and the second involves the benefits regarding the environment and workplace (McMahon, 1994). According to Garfinkel and Haveman (1977), it is emphasized that a strong inverse relationship exists between the education of the head of the household and the degree of poverty, social assistance to the poor as well as health expenditures. Thus, it was stated that, by courtesy of the external benefit of education, there has been a reduction in the costs of medical aid, housing assistance, and aid to citizens in need of protection. Similarly, education results in extremely important externalities on public health due to increased life expectancy and lowered infant mortality rates (Kenkel, 1991). In this context, it is well-known in the literature that semipublic goods such as education and health are in the field of interest of the public economy due to external benefits with which they provide the society as a whole, as well as the private benefit with which they provide individuals. Governments, aiming at enhancing these positive externalities, intervene in education and health, in general, by supporting these sectors. As a matter of fact, A. Marshall, while mentioning the importance of education, drew attention to the investment ventured in education and described the investment as a national investment. According to Marshall, the most valuable capital is the one invested in human existence. Because education renders people more intelligent, more willing, and more reliable in their daily lives (Marshall, 1890).

Becker's seminal work on human capital, along with Schultz's analysis of education expenditures as a form of investment in the early 1960s and his complementary publication on investment ventured in people as of 1962, brought up the analysis of education expenditures and their returns, hence, triggered the studies conducted on this subject (Woodhall, 2013). In this context, it has been determined that throughout the period following the Second World War, as the national income accounts were put on the agenda and began to be calculated using more accurate methods, the rise in national income had an additional increase that not be explained by the abundance of both physical and human production factors. Later on, it was understood that such a situation was caused directly by the elevation in educational level (Mosiño, 2002). Therefore, the concept of human capital, which did not attract attention after A. Smith, re-examined by economists and led many economists such as Schultz, Denison, Becker, Harbison, Myers, Mincer, Psacharopoulos, and Barro to study in this field during the 1950s. Subsequently, the importance of education in economic development was better understood by courtesy of the endogenous growth models developed by P.M. Romer, R.J. Barro, R.E. Lucas, and G. Mankiw (Neira et al., 1999).

In this context, the study examines the impact of public education expenditure on economic development in Turkey. Moreover, the study aims to investigate the extent to which the hypothesis, expressed in endogenous growth models, implying “a strong relationship between education expenditure and economic growth/development” in Turkey. For this purpose, the annual regional data obtained over the period 2004–2019 are used at the NUTS III level, and the dynamic panel data (system-GMM) approach is adopted as an empirical method. In this regard, our study embodies two important distinctions. First, the analysis technique in our study is the first study ever conducted in Turkey in terms of the study period as well as the data used. Second, the data of central government expenditures are used as public education expenditures in the study. As can be seen from the empirical literature reviewed below, in general, the total education expenditures made by the central and local governments are used as public education expenditures in the analyses. Therefore, it is thought that our study would contribute to the relevant empirical literature. First, the literature review is made in the following parts of the study. Then, the data and econometric methodology of our research study are introduced. Following the part in which the empirical results and findings are discussed, the overall evaluation and policy recommendations are presented in the conclusion part.

2. Literature Review

The interventions made by the public sector in the economy attract the attention of many researchers. There are various empirical studies conducted on whether or not the public expenditure is efficient (Aschauer, 1989) as well as the possible consequences of fiscal policy implementation (Nijkamp & Poot, 2004). In this context, it is seen that the relationship between public expenditures and economic growth is frequently mentioned in the literature. For instance, it is stated that a strong relationship exists between the level of development and financial structure (Easterly & Rebelo, 1993), and it is emphasized that productive public expenditures also stimulate growth (Kneller et al., 1999). According to Robert Lucas (2002), the basic engine of economic growth is human capital accumulation. Since the size, combination and socio-cultural characteristics of the population are the determinants of the economic development rate and level of development (Linton, 1952), it is necessary to generate environments that would enable the improvement of human capital in all aspects (Staley, 1961). As in East and Southeast Asian countries, countries must invest in education to experience rapid growth in exports and per capita output and to compete with other countries (Ranis et al., 2000). In this context, it is seen that governments support policies for improving human capital in favor of the development of national economies (Linhartova, 2020).

Economic development and human capital improvement resemble a closely related chain. Empirical analysis reveals the existence of a significant relationship between public education and health expenditures and economic development as well as human improvement, especially for women. Thus, the good and bad performances of these factors affect each other in the same manner (Ranis et al., 2000). For instance, in the empirical analysis conducted by Agiomirgianakis et al. (2002) for ninety-three countries within the scope of endogenous growth theory, education was positively associated with economic growth. According to the simulation performed on Tanzania and Zambia, it was determined that public education expenditures would have increased economic growth and a well-designed expenditure model could also be effective in reducing poverty (Jung & Thorbecke, 2003). According to the results of another study conducted on nine major Latin American countries over the period 1983–1993, it was determined that public expenditures on education and health services had a significant and positive impact on economic growth (Ramirez & Nazmi, 2003). As a result, investment ventured in education is thought to be a crucial variable in explaining the rise in per capita income (Krueger, 1968). In this context, there is a great deal of evidence in the literature indicating that a positive relationship exists between public educational expenditure and economic growth (Atems & Liu, 2020; Thanh et al., 2020; Kutasi & Marton, 2020; Nijkamp & Poot, 2004; Ramirez & Nazmi, 2003; Sylwester, 2000; Şengül, 2021; Trabelsi, 2018).

In another study conducted on economic growth in Ghana over the period 1970 - 2004, it was determined that total public expenditures procrastinated economic growth, and although health and infrastructure expenditures supported economic growth, educational expenditures did not have a significant impact on the short-run (Nketiah-Amponsah, 2009). In the study by Goetz and Hu (1996), the direct and indirect contributions of the human capital level to the economic development of the southern regions in the USA were tested. As a result of the study, it was determined that regions with higher human capital levels also had high levels of development. Martin and Herranz (2004) tried to explain the development differences of 19 regions in Spain with traditional production factors as well as human capital. Accordingly, all factors of production, including human capital, were significantly related to economic growth. In the analysis performed on 30 developing countries throughout the period from the 1970s to the 1980s, it was found that investment expenditures on education and total expenditures had significant impacts on economic growth (Bose et al., 2007). In this context, the impact of educational expenditures on economic growth may differ by country.

In the empirical analysis on the impacts of public investments ventured in Greece on regional economic growth over the period 1978–2007, different impacts of different investment types were mentioned. Accordingly, it was determined that education investments had the highest impact along with infrastructure investments, and public investments had a positive impact on regional economic growth throughout the last three decades (Rodríguez-Pose et al., 2012). The study, in which the impact of educational expenditures on growth in India over the period 1966–1996 was examined via time-series analysis, found that primary education had a strong causal impact on growth. However, the evidence obtained for secondary education was at a limited level. Nevertheless, there was evidence that women's education at all levels had economic growth potential (Self & Grabowski, 2004). For the impact of public education expenditures on growth, there was evidence that if the quality of the provided education was good, it would have been positive, whereas negative if it was of poor quality (Trabelsi, 2018). In Uganda, however, a study, which was conducted over the period 1982–2017, determined that public educational expenditures aggravated the productivity of farmers and positively affected production by adopting new technologies (Owuor et al., 2020).

Upon considering the studies in the literature regarding the impact of educational expenditures on growth, many empirical analyses attract attention. Robert J. Barro, who performed an analysis on the relationship between human capital and economic growth in the 1990s, found that an additional one-year education level increased economic growth by 0.44% (Barro, 2001). According to the empirical analysis conducted on Pakistan over the period 1972–2010, educational expenditures were found to have a positive and significant impact (0.039) on economic growth (Riasat et al., 2011). In the empirical analysis performed on the G20 countries over the period 2000–2011, the impact of educational expenditures on economic growth was found to be positive and statistically significant (0.77) in the short-run and, also (0.69) in the long-run (Selim et al., 2014). According to the empirical analysis performed by Tomić (2015) comparatively on the EU and BRICS countries, it was found that a positive correlation existed between public educational expenditures and economic growth. Nonetheless, the impact of educational expenditures on the growth rate was determined to be 0.77 for 28 EU countries over the period 2002–2011. In the panel data analysis conducted on the determinants of macroeconomic development over the period 2010–2018 for 28 EU member countries, the impact of public education expenditures on economic growth was calculated as negative (-0.1662) (Kiselakova et al., 2020). Another study, in which the impact of educational expenditures on economic growth was tested for Azerbaijan over the period 1995–2018, detected that a 1% increase in public educational expenditures boosted economic growth by 0.44% (Mukhtarov et al., 2020).

3. Data and the Empirical Methodology

3.1. Data

Endogenous growth models assume that human capital accumulation is fundamental to economic growth and development. Accordingly, public education expenditures will encourage human capital accumulation, and thus it can play an active role in ensuring economic growth (Mankiw, et al., 1992; Blankenau, 2005; Blankenau et al., 2007). In the study, in determining the effect of public education expenditures on economic development, the following log-linear reduced form equation is used:

$$loggdppc_{it} = \alpha_0 + \alpha_1 logredu_{it} + u_{it} \qquad (1)$$

where $loggdppc_{it}$ and $logredu_{it}$ represent, respectively, the real GDP per capita and public education expenditures of *i*th province at time *t*. u_{it} shows the error term and its components. μ_i and υ_{it} indicate the unobservable individual-specific fixed effects and ‘idiosyncratic’ time-varying disturbances, respectively. Equation (1) is also the static panel data model we use in the study.

The dataset, which belongs to 81 provinces, covers the period of 2004–2019. We took regional reel GDP data from the Turkish Statistical Institute (TURKSTAT) and obtained per capita data by dividing the annual population. We have compiled public expenditure data by provinces from the website of the General Directorate of National Accounts. We used the regional consumer price index (CPI) at the NUTS-II level to deflate nominal public education expenditures, assuming that the same CPI applies to all the provinces in a specific region. Public education expenditures include only central government education expenditures. Table 1 summarizes the information about these variables, and Table 2 demonstrates the descriptive statistics.

Table 1: Definitions of The Variables

Variables	Definitions	Source
loggdppc	Output-side reel gross domestic product per capita (at 2009 constant national prices, in thousand TL, by provinces in chained volume)	Turkish Statistical Institute
logredu	Reel central government education expenditures (at 2003 constant national prices, in thousand TL, by provinces)	General Directorate of Public Accounts - Republic of Turkey Ministry of Treasury and Finance

Table 2: Descriptive Statistics of the Variables

Variables	Observation	Mean	Std. Deviation	Minimum	Maximum
lngdppc	1296	4.277169	.3809008	3.225525	5.353405
lnredu	1296	14.50311	.896683	12.36086	17.84661

3.2. Empirical Methodology

Static and Dynamic Panel Data Models

We use the static and dynamic panel data methods in the study to analyze the effects of public education expenditures on regional economic development.

Panel data analysis, which includes both individual-specific fixed effects and time dimension, increases the degree of freedom and reduces the problem of multiple linear correlations. Also, parameter estimates are more reliable as there are many observations in panel data analysis that consider unobservable heterogeneity and time effects. In our static panel data model in Equation (1), we estimated the fixed and random-effects model and decided which model to be selected by the Hausman test.

However, most of the economic relations are dynamic, and lagged values of variables such as economic growth/development affect their current situation. In other words, static panel data models do not deal with the endogeneity issue. Therefore, it may be necessary to include lagged values of such variables in the model. Besides, adding the lagged dependent variable to the model eliminates the non-stationary residue problems in static panel data models.

Using the variables in this study, it is possible to show the dynamic panel data model as follows (Blundell and Bond, 1998):

$$loggdppc_{it} = \beta_0 loggdppc_{i,t-1} + \beta_1 logredu_{it} + u_{it} \qquad (2)$$
$$u_{it} = \mu_i + \upsilon_{it}$$

where $loggdppc_{it}$ and $logredu_{it}$ are the dependent variable and explanatory variable, respectively. Also, $\mathrm{E}(\mu_i) = \mathrm{E}(\upsilon_{it}) = \mathrm{E}(\mu_i \upsilon_{it}) = 0$ for i = 1,……,N and t = 2, …… T where μ_i and υ_{it} indicate the unobservable individual-specific fixed effects and time-varying disturbances. In other words, the explanatory variable in the model is exogenous, and the error term has zero mean and constant variance.

If the lagged dependent variable and the error term are correlated, the inconsistent coefficient estimations may arise in the fixed and random effect models. As a solution to this problem, the suggestion is to use the instrument variable instead of the lagged dependent variable (Greene, 2012; Cameron and Trivedi, 2005). In this context, Anderson and Hsiao (1981) suggested using $y_{i,t-2}$ as an instrumental variable instead of $\Delta y_{i,t-1}$ after taking the first difference of the model (equation 2). The instrumental variable estimation method proposed for predicting the dynamic panel model is consistent. However, it is not efficient because it does not allow all moment conditions and does not consider the structure Δu_{it}. According to Arellano and Bond (1991), this situation arises because all possible instrumental variables are not used. Therefore, they suggested using all lagged values of y_{it} and x_{it} as instrumental variables and thus developed the Generalized Method of Moments (GMM). However, first, Arellano and Bover (1995) and later Blundell and Bond (1998) built up a new approach called the system GMM (system dynamic panel data), which combines the original and transformed equation into a single system. In this approach, the system-GMM estimator allows both lagged levels of y_{it} in the first difference equations and lagged differences of y_{it} in the level equations as an instrumental variable. Indeed, Blundell and Bond (1998) have shown that stationary restrictions that allow the use of a System-GMM estimator can be added to the initial conditions (Blundell and Bond, 1998; Baltagi, 2005).

The System GMM approach requires two tests for the validity of the estimation process. The first is the Arellano-Bond test, and the second is the Sargan test, which shows the adequacy of the overdetermination constraints. According to the Arellano-Bond test, there should be no second-order autocorrelation in the model. If the second test result is statistically significant, it means the model is correctly determined, and the instrumental variables are appropriate.

4. Empirical Results and Discussion

Tables 3–4 show our panel regression results. We present the static panel data estimations in Table 3. We estimate both the fixed and random-effects models. According to both models, public education expenditures have a positive and significant effect on GDP per capita. The Hausman test is statistically significant, showing that the fixed-effects estimate is consistent. Accordingly, GDP per capita increases by 5.1% when there is a 10% increase in public education expenditures. Thus, the static model provides strong evidence that public education expenditures significantly affect regional economic development. This result corresponds to both theoretical and empirical expectations.

Table 3: Static Panel Data Estimation Results

Dependent variable: *loggdppc*	**Fixed Effects**	**Random Effects**
logredu	0.5103236* (0.00716)	0.5006381* (0.00727)
Constant	1.97906* (0.10396)	2.11953* (0.50063)
Observations	1296	1296
Groups	81	81
Specification and Diagnostic Tests		
Hausman Test (χ^2)	70.29*	
Wooldridge Test (*F* Statistics)	376.775*	
Breusch-Pagan Test (χ^2)	796.769*	

Notes: Figures in parentheses are standard errors. * denotes significance at 1% confidence interval.

We performed the Wooldridge test for serial-correlation and the Breusch-Pagan Lagrange Multiplier test for panel heteroskedasticity in the model. According to test results, the static model has autocorrelation and heteroskedasticity. One of the possible causes of these problems is the existence of dynamic relationships between variables. However, for whatever reason, the presence of these problems can lead to the estimation of inconsistent coefficients. Thus, we conduct dynamic panel data estimates using the system-GMM procedure described above and present results in Table 4.

As stated above, the quality of the system-GMM estimator depends on the diagnostic test results. According to the Arellano-Bond test, there is no second-order autocorrelation in the model since AR (2) test statistics value is insignificant. Further, the Sargan test provides support that instrument variables are suitable in the 95% confidence interval. Finally, the probability value of the Wald Chi-squared test indicates that the models are significant. Thus, all test results show that the model meets the validity conditions.

Table 4: Dynamic Panel Data Estimation Results

Dependent variable: loggdppc	**Coefficient**	**Std. Error**	***t* Statistics**	**Probability**
loggdppc (-1)	0.8258226	0.0020728	398.41	0.000*
logredu	0.1147395	0.0013507	84.95	0.000*
Observations		1215		
Groups		81		
Diagnostic Tests				
Wald Test (χ^2)		4.94e+07* (0.0000)		
Sargan Test (χ^2)		80.9769 (0.9963)		
Arellano-Bond AR2 Test		-1.3225 (0.1860)		

Notes: Figures in parentheses () are *p*-values. * indicates significance at 1% confidence interval. In the model estimation, we have applied twostep system dynamic panel data estimation procedure. In this context, the instruments for the differenced equation are loggdp and D.logredu, and instrument for the level equation is and LD.loggdp.

According to the estimation results in Table 4, all variables are statistically significant. In other words, there is a positive relationship between public education expenditures and economic development. Estimation results show that GDP per capita increased by 1.1 percent when public education expenditures increased by 10 percent. Contrary to theoretical expectations, the impact of education expenditures on GDP per capita is relatively low. This situation is an expected result. This result is the expected case since the public education expenditures used in this study include only central government education expenditures. Central government expenditures per province are on average 3.2 million Turkish Liras annually. Moreover, in our paper, financing types of education expenditures and budgetary constraints are excluded. Therefore, what is important here is that the public education expenditures have a positive effect on GDP per capita rather than its magnitude.

This study aims to determine the effects of central government education expenditures on regional economic development. It is possible to say that the findings obtained in our study are compatible with other studies in the empirical literature if this purpose and the issues mentioned above consider. However, there are considerable differences. For example, Sylwester (2000) states that while the current period effect of public education expenditures on economic growth is negative, it positively affects the economic growth in the next period. According to the study, the positive impact of public education expenditures in the current period on economic growth emerges approximately ten years later. Ramirez and Nazmi (2003) concluded that public education expenditures positively affect economic growth in Latin American countries. Similarly, in their paper for Tanzania and Zambia, Jung and Thorbecke (2003) showed that education expenditures increase growth with multi-sectoral computable general equilibrium models. Bose et al. (2007) examine the growth effects of total government education expenditure and education investments for 30 developing countries over the 1970s and 1980s. According to the authors, sectoral education expenditures and education investments have strong and positive impacts on growth. Atems and Liu (2020) conclude that public education spending has a positive and significant impact on growth. According to the authors, a 10 percent increase in public education expenditures increases the economic growth by about 4 percent. Also, the authors use the lagged value of the total education expenditures of central and local governments as the only explanatory variable, unlike our study. As in the study of Atems and Liu (2020), Kutasi and Marton (2020) state that the lagged values of education expenditures positively affect economic growth. Unlike other studies, Din Thanh and others (2020) conclude that while the effect of public education expenditures on growth is insignificant, the efficiency of education expenditures (lnEDU * lnK) is negative. Another difference between this study and the others is that the analysis was conducted at the provincial level in Vietnam as in our study.

In summary, although there is a general similarity between our study and other studies in the empirical literature (except Din Thanh and others, 2020), there are a few remarkable differences. First, while we examined the effect of central government education expenditures on economic growth, other studies have analyzed the impact of total education expenditures. Second, our study was at the provincial level, in other words, regional at NUTS Level III, while other studies focused on national or sectoral level analysis. Finally, in our paper, the current public education expenditures have a positive effect on growth. Alternatively, in other studies, either the impact of lagged education expenditures on economic growth was positive or was statistically insignificant.

5. Conclusion and Policy Implications

This study analyzes the effects on the economic development of public education expenditures in Turkey. In this context, we investigate the hypothesis that there is a strong relationship between education expenditures and economic growth/development. To test this hypothesis, we used annual data of 81 provinces covering the period 2004-2019. We also used the system-GMM estimator, which considers dynamic relationships between variables, to analyze the empirical relationship specified in the hypothesis.

According to the analysis findings, public expenditures affect economic growth positively as expected. However, the effect in question is not as great as is expected compared to other studies on the subject. Therefore, the empirical findings of our study did not fully support the hypothesis of endogenous growth models. Undoubtedly, the reason for this result may be that central government expenditures are included as an indicator of public education expenditures in our study. In fact, central government education expenditures are low at the NUTS III level in Turkey.

Nevertheless, the findings of our study inspire the idea that regional development will accelerate when central government education expenditures are increased. Consequently, it is thought that the central government should allocate more shares for education expenditures. It is also possible that increases in public education expenditures, considering regional development differences, will more affect both regional and national economic development.

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Kudüs Cad. No:9 Diplomatik Site 06450 ORAN-Ankara, Turkey
Tel: (90-312) 468 61 72-76 Fax: (90-312) 468 57 26
Email: oicankara@sesric.org Web: www.sesric.org