The effect of macroeconomic variables on corporate financial development: International evidence from the banking sector

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Abstract

Purpose– This study seeks to examine whether macro-economic factors influence on the corporate financial development that measured by banks' Financial Performance (FP), Dividends and Financial Stability (FS)

Design/methodology/approach- The balanced panel data regression model has been adopted. The research data includes 220 banks (150 Islamic banks and 70 conventional banks) across 25 countries for 8 years (2012-2019). The macro-economic factors include unemployment and domestic credit to private sector by banks (percentage of GDP). The Information and Communication Technologies (ICT) includes secure Internet servers and individuals using the Internet and finally Innovation Capability.

Findings–The results for the impact of innovation support the negative consequence over FP with insignificant effect on dividends and FS. Similarly, the analysis support the negative impact for secure Internet servers on the FP and no significant for other two dependent variables. Related to the impact of

Individuals using Internet, we also just find a positive effect on FS. For the influence of the unemployment, the analysis shows positive effect on the FS while shows negative effect on the dividends as well as shows insignificant consequence over the FP. Finally, the analysis supports the positive consequence for the domestic credits on the three corporate indicators (FP, FS, and dividends). After applying robustness tests, the regression analysis shows identical results.

Originality/value–The paper supports to what extent the country factors have a good economic consequences over the banks, which may motivate the government and policymakers to ask for more considering of factors as internet and innovation to develop and enhance the level of performance, stability and dividends.

Keywords– Macroeconomic variables, Information, and Communication Technologies, Innovation, Unemployment, Domestic credits, Financial Performance, Dividends, Financial Stability

تسعى هذه الدراسة إلى فحص ما إذا كانت عوامل الاقتصاد الكلي تؤثر على التنمية المالية للشركات التي يتم قياسها من خلال الأداء المالي للبنوك، توزيعات الأرباح، والاستقرار المالي. من خلال تطبيق نموذج انحدار بيانات اللوحة المتوازنة. تشمل البيانات ٢٢٠ مصرفاً (١٥٠ مصرفاً إسلامياً و ٧٠ مصرفاً تقليدياً) عبر ٢٥ دولة لمدة ٨ سنوات (٢٠١٢-٢٠١٩). تشمل عوامل الاقتصاد الكلي البطالة، والائتمان المحلي للقطاع الخاص من قبل البنوك (٪ من الناتج المحلي الإجمالي). وتشمل تكنولوجيا المعلومات والاتصالات: خوادم الإنترنت الآمنة، والأفراد الذين يستخدمون الإنترنت. وأخيرًا القدرة على الابتكار.

تدعم النتائج التأثير السلبي للابتكار على الأداء المالي، مع تأثير ضئيل على الأرباح الموزعة والاستقرار المالي. وكذلك التأثير السلبي لخوادم الإنترنت الآمنة على الأداء المالي وليس له أهمية بالنسبة للمتغيرين التابعين الآخرين. فيما يتعلق بتأثير الأفراد الذين يستخدمون الإنترنت، وجدنا تأثيرًا إيجابيًا على الخدمات المالية.

وبالنسبة لتأثير البطالة، يُظهر التحليل تأثيرًا إيجابيًا على الاستقرار المالي وتأثيرًا سلبيًا على توزيعات الأرباح في حين يظهر تأثير غير معنوي على الأداء المالي للبنوك محل الدراسة. أخيرًا، يدعم التحليل النتيجة الإيجابية للائتمان المحلي على المؤشرات الثلاثة. بعد تطبيق اختبارات المتانة، يظهر تحليل الانحدار نتائج متطابقة.تدعم الدراسة إلى أي مدى يكون للعوامل الاقتصادية للدولة تأثيرات جيدة على البنوك، مما قد يحفز الحكومة وصانعي السياسات على طلب المزيد من الاهتمام بتلك العوامل مثل الإنترنت والابتكار لتطوير وتعزيز مستوى الأداء والاستقرار والأرباح لقطاع البنوك.

الكلمات المفتاحية: عوامل الاقتصاد الكلي، تكنولوجيا المعلومات والاتصالات، الابتكار، البطالة، الائتمان المحلي، الأداء المالي، توزيعات الأرباح، الاستقرار المالي.

1. Introduction

The financial institutions play a critical role in the economy by transfer deposits into productive investments (Faoziet al., 2019).In addition, financial institutions efficiency can be affected by economic growth. Where business leads, finance follows, implying that the development of the financial sector follows economic growth due to increased demand for financial services, rather than the view that finance causes economic growth.

Bank performance is responsive to macroeconomic conditions. Firstly, during the high economic growth, loan defaults, and a country's bank risks decreases, this has a positive impact on banking sector stability (Bikker and Metzemakers, 2005). Secondly, higher economic growth, allowing banks to lend more, charge higher margins, and increase the quality of their assets (Imad et al., 2011). On the other hand, during the recession, deposit mobilization, and loan creation decrease, while non-performing loans increase, which decrease the

profitability of the banks (Noman et al., 2015). Thirdly, during a period of relative economic stability, and productivity growth -If all other factors remain constant- this could lead to increase in disposable income, and a favorable environment for personal and corporate investment, leading to increase in bank profitability due to increase in loan, and credit, which has a direct impact on dividends and stability(Athanasoglou et al., 2014)

Recently, rapid changes in the business environment have led to an expansion in innovation-related activities (Blazevic& Lievens, 2004). As a result, technology, in general, and information and communication technology (ICT) in particular, have become the most important strategic tools for ensuring banks' profitability and expanding their market position (Consoli, 2005).Therefore, understanding the main factors that affect bank profitability is important not only for the managers of the banks but also for other stakeholders.

Due to Bank profitability is sensitive to macroeconomic conditions and the profitable banking sector improve the stability of financial sector that reflect in dividend we follow the 'demand-following' hypothesis posits an economic growth leads to financial development (Odhiambo, 2009).

The study contributes to literature through firstly, the majority of literature as to our knowledge, investigate the relationship between one of the macroeconomic factors against one of the financial variables as profitability (Rahman et al., 2015; Al-Homaidi et al., 2018) stability (Rupeikaet al.,2018; Ozili, 2018) and dividend (Jabbouri, 2016; Ciprian& Maria, 2017). While the current study examine whether macro-economic, ICT determinants, and Innovation influence banks' profitability, dividends and financial stability across selected countries of various regions to achieve the study objective. Secondly, due to the scarcity of Islamic literature in the study of stability, dividend and profitability, the study examine the relationship between economic variables and financial variables

in all panel and second for conventional and third for Islamic to compare between the conventional and Islamic banks.

This paper purpose is to study what extent the country factors (unemployment, domestic credit, ICT, and Innovation capability) influence corporate financial development that a measured based on three factors: financial performance, dividends and financial stability by employing OLS panel model. The data includes 220 banks across 25 countries for 8 years between 2012 and 2019.

The paper is arranged in the following style. Section 2 presents the conceptual framework. Section 3 shows the literature and hypotheses for the three factors. Section 4 identifies the research design that discusses the data, variables, and econometric model. Section 5 presents the empirical findings. Section 6 shows conclusion and recommendations for the future research.

2. Conceptual Framework

In the theoretical literature, the relationship between financial development and economic growth has gotten a lot of attention. On one hand, the country's economic growth is dependent on the sophistication of its financial markets, which allows for efficient allocation of financial resources and innovations that boost economic productivity and meet markets' demands. According to Mckinnon (1973), government controls on the banking system leads to a decrease in aggregate savings and investments as well as inefficient distribution of financial resources. Adversely, financial liberalization will increase aggregate savings and encourage more effective distribution and usage of financial resources, which are prerequisites for establishing a sustainable basis for the economic growth and development.

On the other hand, Joan (1952) argued that where business leads, finance follows, implying that financial development occurs because of increased demand for financial

services, rather than finance causing economic growth. Friedman and Schwartz's (1963) support this perspective. The positive relationship between financial development (FD) and macroeconomic factors such as GDP could simply represent a demand for money with a greater than unity income elasticity. As a result, the causal direction will run from GDP to financial development, through the demand for money. (Panicos and Khaled, 1996) also, Lucas (1988) dismisses the finance–growth nexus entirely, arguing, *"economists greatly overestimate the role of finance in economic growth"*

Numerous empirical studies including Adusei (2014); Victor (2014); Pradhan et al., (2014); Camara and Diallo (2020)support the positive relationship between financial development and economic growth, although some studies find a negative relationship between finance and development (Loayza& Rancie`re, 2006; Adusei, 2012) others find no evidence of a relationship (Graff, 1999).

Due to different of evidence on the finance-development nexus, the direction of causality between finance and growth has emerged. There are three types of empirical results findings: supply-leading hypothesis, which illustrates that financial development stimulate economic development by transfer resources from low marginal productivity sectors to high marginal productivity sectors, and encouraging business activity in the high marginal productivity. Bittencourt (2012) support this hypothesis.

The demand-following hypothesis, this implies that economic development encourage financial development, implying that rising demand for financial services can lead to financial system expansion as the economy's real sector expands studies that support this hypothesis (Odhiambo, 2009; Michael and Mlambo, 2010). It demonstrates the degree of economic liberalization, as well as political system stability has a significant effect on the financial development in the African continent. Economic growth, according to Adusei (2014), encourages financial development in the 24 African countries.

Patrick (1966) suggests a third hypothesis known as the stage of development hypothesis, in which supply-leading, financial development can stimulate real investment in the early stages of economic development. However, as the sustained economic development, the supply-leading effect diminishes as the demand-following response takes over and becomes leading(Rousseau &Vuthipadadorn, 2005; Apergis et al., 2007). Chukwu& Agu (2009) investigate the causality between financial depth and economic growth in Nigeria. The findings suggest that, for private sector credit and real broad money supply. The study supports the demand-following hypothesis, while for loan deposit ratio and bank deposit liabilities it supports the supply-leading hypothesis.

3. Literature and Hypotheses

Using three categories of proxy variables, we empirically tested the econometric model of bank FP, dividends, and financial stability (FS), by determining factor(i) macroeconomic specific that comprises unemployment and domestic credit to private sector by banks, (ii)Technology specific which includes secure Internet servers and individuals using Internet, and (iii) Innovation specific.

3.1 Consequences of macroeconomic variables

3.1.1 Impact of macroeconomic variables on the FP

Several studies look into the bank-specific and macroeconomic factors that influence FP. (Boateng et al., 2015) indicate that unemployment one of the macroeconomic factors that can impact banking sector profitability. rising unemployment reduces aggregate demand, raising the loan default rate and reducing bank profitability**.** Unemployment was found to be negative but not relevant on FP by Heffernan and Xiaoqing (2008). Another macroeconomic factor that may affect banking sector profitability is domestic credit (DC) to the private sector. This variable can influence bank performance and is used as a proxy for a country's banking sector growth. A high

bank credit-to-GDP ratio may indicate a higher risk of default for banks. In Islamic banks, Mirzaei et al (2011) discovered a negative relationship between DC and profitability, while in traditional banks, the relationship was positive. They found also negative relationship between DC to the private sector and profitability in emerging economies and positive in advanced economies. This implies that in emerging countries and markets, the lack of money supply is a major impediment to competition growth. The more funds available on the market, the more competitive the market would be, placing more pressure on banks to offer competitive services. Based on Return On Assets (ROA), Selma et al., (2015) discovered a positive impact on FP.

H1.a Macroeconomic variables (Unemployment and DC) has negative impact on FP

3.1.2 Impact of macroeconomic variables on the dividends

Differences in dividend policy between countries are largely attributable to macroeconomic factors, which are expressed in stock market results (Glen et al., 1995). Changes in the macroeconomic environment have an impact not only on the foundations of businesses, but also on managerial decision-making. In response to change, management can alter their investment, financing, and dividend policies. The literature shows how management is affected by economic volatility to adjust their financing mix (Farooq et al., 2012). They claim that during economic downturns, investors' reactions to dividends are stronger than during periods of booming or stable growth. During times of high growth, investors are less concerned with dividend policy, as shown by their lack of reaction to changes in the dividend policy.

During good economic times, management tends to minimize dividend payments, whereas during poor economic times, they tend to increase (Glen et al., 1995). Jabbouri (2016) identifies the key factors affecting dividend policy in MENA markets. The study documents that dividend policy is negatively

associated with the state of the economy. Ciprian and Maria (2017) on the other hand, discovered a negative link between the state of the economy and listed firms' dividend policy decisions in Romania. According to the results, management appears to raise dividend payments during economic downturns and decrease them during good times.

H1.b Macroeconomic variables (Unemployment and Domestic credit) has positive impact on dividends

3.1.3 Impact of macroeconomic variables on the FS

According to the literature, the macroeconomic variables as economic growth, domestics' credit, and unemployment is expected to have an effect on bank's FS. For example, Mirzaei (2011) discovered a negative correlation between bank stability and domestic credit (DC) given by the banking system. This means that as DC expands, bank risk grows as well. In developing economies, an increase in releasing DC leads to lower stability, but the opposite is true in advanced economies, according to Mirzaei et al (2011).This may be because young banks are more likely to invest in risky projects or release funds to lower-quality borrowers due to a lack of appropriate screening and monitoring systems. Shahid and Abbas (2012) found GDP growth rate had significant positive impact on the FS of Islamic and conventional bank. Diaconua and Oaneab (2014) support the same positive association for the bank's stability and macroeconomic specific.

Diaconua et al (2014) found that, for three months, FS of cooperative banks is affected by macroeconomic specifics such as GDP growth, interbank offering rate, government effectiveness, political stability, regulatory efficiency, corruption prevention, and unemployment levels. In the Latvian banking industry, Rupeika-Apoga et al (2018) identified the determinants of bank stability. They discovered evidence that credit risk and efficiency ratio have a significant negative impact on bank stability, but that scale, liquidity, FP, inflation, and growth have a significant positive impact. Ozili (2018)

discovered a correlation between banking stability and unemployment. This means that high unemployment is linked to a lower number of non-performing loans. This result contradicts Boateng et al (2015) who found a negative link between unemployment and bank stability.

H1.c Macroeconomic variables (DC and unemployment) has positive impact on FS

3.2 Consequences of Technology variables

The rapid development of the Internet and E-finance will have an effect on bank characteristics such as profitability, liquidity, dividends, growth, and stability, and thus on the banks' overall efficiency. This paper examines how specific technology (the Internet) affects the efficiency and FD of banks in the following ways, based on economic theory and existing literature.

3.2.1 Impact of Technology variables on the FP

The exponential growth of the Internet has had a major impact on bank operations. Josiah and Kingoo (2012) discovered that, E-banking on the Kenya banking system has positive marginal effects on FP. Electronic banking has streamlined banking transactions by taking services closer to investors and consumers and thereby improving banking financial efficiency. Al-Azzawi and Altmimi (2015) support a positive effect of investment of ICT on the profitability of Jordanian commercial banks. Similarly, Mahboub (2018) adds to the ongoing debate about technology's position in FP by analyzing the effect of ICT investments on the output of a sample of 50 Lebanese banks. The results demonstrate that the technology significantly and directly affects performance. According to Dong et al (2020), the growth of Internet finance has a positive effect on commercial banks' profitability, security, and growth. The effect of ICT on the income across the EU 28 banking industry is examined by Belinda et al (2020) and

indicates that ICT has a positive effect on these success metrics. As a result, the following hypothesis is

H2.a Technology variables has positive impact on the FP

3.2.2 Impact of Technology variables on the dividends

Despite the fact that there is little evidence in the literature that these investments are linked to the organization's success, technology is becoming a greater part of organizational expenditures. The dividend and investment decisions in technology, according to Miller and Rock (1985), are "flip sides of the same coin." Companies who wish to bring more capital into technology make smaller dividend payments automatically. There is no indicator about the link between the investments in technology by government and dividends rather than investment in technology by corporations. However, we anticipate a positive indirect relationship because government infrastructure growth, such as the development of the Internet has undoubtedly prompted banks to evolve their approach to their customers, enhance their service offering, incorporate new technology, optimize capital structure, minimize operating costs, and encourage overall profitability (Srivastava, 2014).Dividends are only paid out if a company's investment options are no longer profitable. Banks that making high level of probability can more easily follow high dividend policy and distribute higher payouts for their investors.

H2.bTechnology variables has positive impact on the dividends

3.2.3 Impact of Technology variables on the FS

The rise of FinTech has sparked a discussion about technology's effect on financial stability (Claessens et al., 2018; Nasiripour, 2019). Owusu-Agyei et al (2020) found evidence of the positive impact of internet use on different measures of financial development(FD) based on 42 countries in sub-

Saharan Africa. For Pierri and Timmer (2020), the use of technology in lending and the advancement of internet infrastructure by US banks will help to boost financial stability by allowing for the creation of more durable loans. Similarly, Belinda et al (2020) look into the effect of ICT on the financial stability of the EU 28 banking industry. The findings indicate that FS in the banking industry is strengthened by the widespread use of IT and financial technology, which decreases the risk of default.

Nguyen et al (2020) investigate the effect of internet and mobile use on nine separate FD measures in a study of 109 economies Granger causality tests indicate a long-run bidirectional causal relationship between internet/mobile use and financial growth. They discovered that internet use has a substantial negative effect on overall FD, which they attribute to financial institutions. Mobile use, in comparison to the opposing effects of internet use, has a major positive impact on all nine FD indices. According to the estimates, the positive influence of the internet is a short-term effect, while the negative impact is a long-term effect. Dong et al (2020) show that the development of Internet finances has negative impact on the liquidity of commercial banks then effect on the stability of banking system. We suggest that developing technology can enhance the FS through better monitoring and screening.

H2.c Technology variables has positive impact on FS

3.3 Consequences of innovation variable

In such a dynamic, complex, and intellectual world, innovation is the most important source of firm success and survival (Abbing, 2010). However, as we aim to cover it, progress in the service sector, as banks, has gained relatively little coverage.

3.3.1 Impact of innovation on the financial performance

Companies pursue inventions for a variety of purposes, one of which is to increase FP. Companies' progress, Feeny andRogers (2003) described innovation as suggesting an improvement in efficiency. Agrawal et al (2003) imply that without superior innovation efficiency, FP cannot be realized. Firms can produce FP in a variety of ways, including by assisting in the identification of technical possibilities for enhancing service quality and providing a superior value product to customers. Wei and Morgan (2004) found that creativity could lead to a long-term competitive advantage by offering superior value to consumers, which can lead to improved profitability. Innovation is linked to non-financial aspects of a company's success, such as customer satisfaction, and then it accelerated the higher FP. (Gunday et al., 2011) according to Tidd and Bessant (2013), can be explained by creativity. Since R&D, expenses and patent applications are important factors that affect a company's market value.

Several studies have been published in the literature that clarifies the relationship between creativity and FP. For example, innovation is expensive and risky, exposing firms to higher market fluctuations and costs and then may affect negatively on FP (Simpson et al., 2006) Innovative practice is not always correlated with higher profitability, according to Koellinger (2008).Kafetzopoulos and Psomas (2015) according to Greek firms, the study finds that the desire to invent has no direct effect on a company's financial results. Short-term innovation can result in potential loss. Similarly, Silva et al (2017) empirically showed that, Business innovation and strategic financial planning have a negative relationship. In contrast, Jayani and Yan (2018) provided evidence to confirm the positive relationship between innovation capabilities and firm FP based on the insurance industry in Sri Lanka. Hoang and Bui (2019) discovered four groups of factors that have positive effects on the financial performance of electronic firms, one of which is innovation capacity.

H3.aInnovation has positive impact on FP

3.3.2 Impact of innovation on dividends

There is a trade-off between dividend payments and creativity. A manager has to decide whether it is more beneficial to invest the financial resources of firm in different business sections to increase the business value and then the share price. The other option is to pay dividends and share the profit with its shareholders. The literature support mixed result for the association between innovation and dividends payments. Moreover, Lahiri& Chakraborty (2014) found that innovation - intensive firms pay fewer dividends than firms, which are not strongly involved with innovation. Therefore, the innovation leads to high Research and Development (R&D) that leads to a decrease in dividends Paudel and Kiran (2020) use a wide sample of US manufacturing companies to find that companies that are more creative pay lower dividends than less innovative companies. This negative association is supported across several previous studies (e.g., Gugler, 2003; for German firms; Namryoung and Jaehong (2019) for South Korea firms)

On the other hand, Bao Yang et al (2020) use a sample of Chinese publicly traded companies to show that businesses that spend more in R&D pay higher dividends. The semi-mandatory dividend policy and the equity dependency of R&D investments may clarify this. R&D businesses are more likely to need equity funding and have competitive incentives to pay dividends in order to obtain access to it. They also show that equity funding is needed for R&D investments to have a positive effect on dividend payout.

H3.bInnovation has a negative impact on the dividends

3.3.3 Impact of innovation on financial stability

Financial market progress has been crucial in boosting economic growth. However, the ongoing financial market volatility poses fundamental concerns about the essence of innovation and policymakers' position in FS stability(Plosser, 2009).Gonzalez et al (2016) use data from 134 publicly traded

European banks to show that innovation focused on securitization and credit derivative trading has a negative impact on FS. Other studies have discovered a positive relationship between the two variables. For example, Anton Zaionts (2020) determine the role of banking innovations in the system of ensuring the banks' competitiveness and stability based on the innovative developments of foreign banks. The importance of banking innovations as the factor of banks' competitiveness and stability was substantiated. In the same way, Bai Liu et al (2021) investigate how derivative innovation affects firms' financial stability. They find strong evidence that innovation improves financial stability in Chinese listed companies. Additional experiments show that companies use imitative innovation to achieve a competitive advantage, but that this often tightens their financial constraints, resulting in higher FS.

H3.cInnovation has positive impact on FS

4. Research Design

4.1 Data and sample

The sample includes 220 banks for the years 2012–2019 across 25 countries, the research sample divided into 150 IBs and 70 conventional banks that produced 1752 observations for 8 years. The sample includes the following countries: Bangladesh, Brunei, Iran, Iraq, Gambia, Jordan, Kuwait, Oman, Pakistan, Lebanon, Qatar, KSA, Mauritania, Singapore, Sudan, Syria, Tunisia, Turkey, Yemen, Egypt, Malaysia, Indonesia, UAE, UK, and Bahrain. All selected countries hosted Islamic and conventional banks. Each country has available data for at least 5 years. We constructed a sample of data from different sources. The corporate factors as ROA, divides, FS, size, auditors and adopted accounting standards collected from annual reports in addition to the Bank scope database. The macroeconomic factors as Innovation, Secure Internet servers, Individuals using Internet, Unemployment, domestic credit to private sector by banks and inflation composed from World

Bank database. The factors of Culture are gathered from the website of green Hofstede.

4.2 Research models

To test hypotheses related to the significances of macroeconomic factors on three corporate factors level, we estimated three models. We used multiple regression analysis to measure these consequences. The research models follow the same methodology that adopted in several literatures, which focus on the impact of macroeconomic factors on accounting indicators as FP, dividends and FS (Zarrouk et al., 2016; Ozili, 2018; Hoang and Bui Hoang, 2019; Namryoung and Jaehong, 2019; Paudel and Kiran, 2020) The variables, definitions, and sources for variables presented in table 1.

Model (1): The consequences over the FP-(ROA)

$$ROA_{it}=\beta0 +\beta1\ INNOV_{it}+ \beta2\ SEC.INT_{it}+ \beta3\ IND.INT_{it}+ \beta4\ UNEMP_{it}+ \beta5\ D.CREDIT_{it}+ \beta6\ AUDIT+ \beta7\ IFRS+ \beta8\ SIZE+\beta9\ INFLA + \beta10\ LTO + \beta11\ UA + \beta12\ ISL.CON + \varepsilon_{it} \quad (1)$$

Model (2): The consequences over the financial stability (FS)

$$CAR_{it}= \beta0 +\beta1\ INNOV_{it}+ \beta2\ SEC.INT_{it}+ \beta3\ IND.INT_{it}+ \beta4\ UNEMP_{it}+ \beta5\ D.CREDIT_{it}+ \beta6\ AUDIT+ \beta7\ IFRS+ \beta8\ SIZE+\beta9\ INFLA + \beta10\ LTO + \beta11\ UA + \beta12\ ISL.CON + \varepsilon_{it} \quad (2)$$

Model (3): The consequences over the dividends

$$DIVID_{it}= \beta0 +\beta1\ INNOV_{it}+ \beta2\ SEC.INT_{it}+ \beta3\ IND.INT_{it}+ \beta4\ UNEMP_{it}+ \beta5\ D.CREDIT_{it}+ \beta6\ AUDIT+ \beta7\ IFRS+ \beta8\ SIZE+ \beta9\ INFLA + \beta10\ LTO + \beta11\ UA + \beta12\ ISL.CON + \varepsilon_{it} \quad (3)$$

4.3 The measurement of variables

In this study, we have three dependent variables. Firstly, FP is used as one of the corporate factor. As the vital determinant of bank profitability, we used ROA. For Rahman et al (2015) ; Al-Homaidi et al (2018), ROA has appeared as the crucial ratio for the assessment of bank profitability and has become the furthermost common measure of FP across the

previous studies. ROA calculated as the ratio of net income divided average total assets. The second dependent variable is dividends. We use dividend payout ratio, which is measures as the ratio of business's earning circulated for the stockholders. The third dependent variable is the bank financial stability. We use Capital Adequacy Ratio (CAR) that is the percentage of a bank's capital in relative to its risk-weighted assets as well as current liabilities. It is definite thru central banks for avoid banks from taking extra leverage and becoming bankrupt in the process. Bank regulators implement this ratio for confirm credit discipline to guard investors and encourage stability and effectiveness in the economic system. There are numerous indicators adapted to measure the banks' stability as non-performing loan ratio, core capital adequacy, Z-score and capital adequacy ratio (Xu and Chen, 2012). According to Rehman et al (2019); bank capital adequacy % is a significant fragment of bank credit risk management as well as plays an vital character in sinking the credit risk then develop the level of bank' stability.

Related to the independents variables, which measure the macroeconomic conditions in this study, we have five factors, which are (1) innovation, (2) secure Internet servers as the first variable to measure the level of Information and Communication Technologies (ICT)in the country and (3) Individuals using Internet as the second variable measure the level of ICT. The (4)and (5)macrocosmic factor is Unemployment and Domestic credit to private sector by banks to measure. We added two group of control variables in the models related to corporate and country level. For control corporate factors' level, we add size, which is measured based on the natural logarithm of total assets. The current literature comprises incongruity over the scale of bank assets and performance of bank processes. Some academics declare that banks with huge asset have superior hazard, so the superior bank size the upper risk of insolvency. For Jiang and Chen (2012)the bigger bank, the more able for expanding hazard by the

diversification of assets, the more capable to manage risks and the minor its hazard exposure. The performance of banks changes with the scale of its assets (Halkos and Salamouris, 2004). We also control the audit quality, which is measured as dichotomous variable that equals one if the auditor is 4-Big and 0 otherwise. We measure for what extent the adopted accounting standards may effect on model that measured as indicator variable that equals (1) if the adopted standard is IFRS and 0 otherwise. We more over consider the category of the bank as dichotomous variable that equals one if the bank is Islamic, and (0) if the bank is conventional.

Most academics (e.g., Imad et al., 2011, Athanasoglou et al., 2014, Noman et al., 2015)have found that when the economy progresses well, banks have a better tendency for lending and, thus, the earnings increases. However, they are more probable to engender loans that lead to improved FP as well as dividends and stability (Gray, 2012). To capture and consider the variances between countries and concerning with country control level as the sample includes cross-countries, we consider first the nature of the country by dividend the sample into developing and developed country. This variable measured as dichotomous variable that equals one if the country is developed and zero if the country is emerging. Secondly, we include inflation rate that is measured thru the customer price index imitates the annual percentage variation in the cost to mean customer of obtaining a basket of services and goods. As the research sample is multi countries, we control in the model the culture. To measure culture, we used two dimensions for Hofstede, uncertainty avoidance (UA) and long-term orientation (LTO).

5. Empirical Results

5.1 Summary statistics and correlation analysis

Table (2) presents the **descriptive statistics** for wholly variables as well as for entirely banks and countries that comprised in sample. These statistics offer information about

variable circulation. 50% from the selected banks adopted IFRS and other 50% apply AAOIFI or local standards. 0.74% from the selected banks is audited by one of the 4-big office, which reflects a high level of auditing quality for these banks. Associated with the corporate issues; the average ROA for banks is 2.971, and the mean value for dividends is 47.75. The Capital Adequacy Ratio (CAR) for designated banks is 25.43. Related to the research nominated countries, 68% is Islamic countries as well as 31% is developed while 69% is developing countries. Concerning with the macroeconomic factors, the research sample selected countries highlighted thru innovation level of 3.68, unemployment level is low by 5.22 and average number individual who used internet is 69.46 million. The average rate for DC to private sector by research sample banks is 64.33.

In table (3) **Correlation matrix** presented. We run variance inflation factors (VIFs) on the variables with an association of > 0.5, and the biggest VIF factor is <7; that is well under the serious value of 10. It signifying that multicollinearity is improbable to be a concern in the regressions. The interaction between corporate financial indicators and macroeconomic factors are variables of interest. While we find significantly and positively correlated for FS and individuals who use the internet as well as secure Internet servers and domestic credit, we find a negative correlation for unemployment. Related to control variables, the univariate tests suggest a positive association with quality of audit, nature of the selected counties and Uncertainty Avoidance. We find negative linkage with size and inflation.

Table (1): Variables, definitions and sources

Variables	Symbol	Definitions	Source
Dependent Variables: Corporate factors level			
Financial performance	ROA	Return of assets ratio	Annual reports and Bank scope database
Dividends	DIVID	Dividend Pay-Out %	
Financial stability	CAR	= (Tier I + Tier II + Tier III (Capital funds)) /Risk weighted assets	
Independent Variables: Macroeconomic factors level			
Innovation index	INNOV	12th pillar Innovation take	World bank database

		number between (1-7) provided by World Economic Forum, represent Innovation Ecosystem, that consist of Business dynamism and Innovation capability	https://data.worldbank.org/
Secure Internet servers	SEC. INT	(Per 1 million people), number of separate, publicly-trusted certificates found in Net craft Secure Server Survey	
Individuals using Internet	IND. INT	(% of population), they are persons who have used Internet in the last 3 months. Internet can use thru computer, mobiles, digital assistant. Provided via International Telecommunication Union World (ICT Database)	
Unemployment	UNEMP	Portion of labor force that is without work but obtainable for seeking employment, International Labour Organization, ILOSTAT database	
Domestic credit to private sector by banks	D.CRED	DC provided thru financial sector that comprises all credit to several segments on a gross basis	
Control Variables: Corporate factors level			
Total assets (Size)	SIZ*E*	The natural logarithm of total assets	Bank scope database Annual reports
Auditor (4-BIG)	AUDIT	A dichotomous variable: equals one if auditor is 4-Big, and 0 otherwise	
The adopted accounting standards	IFRS	Indicator variable: equals 1 if the adoption standard is IFRS by bank and 0 otherwise	
Nature of the bank (Islamic against conventional bank)	ISL. CON	A dichotomous variable that equals one if the bank is Islamic, and 0 if the bank is conventional	
Control Variables: Country factors level			
Nature of country (developing against developed country)	DEV. EMER	A dichotomous variable that equals one if the country is developed, and 0 if the country is emerging	World bank database https://data.worldbank.org/
Inflation rate	INFLA	The customer price index imitates the annual % variation in the cost to mean	

			customer of obtaining a basket of services and goods	
Culture	Uncertainty Avoidance	UA	UA value of one country	Hofstede (1980, 2001, 2010)
	Long Term Orientation	LTO	LTO value of one country	

Table (2): Descriptive Statistics

	N	Mini	Maxi	Mean	Std. Dev	Skewness	Kurtosis
ROA	1161	0.0	79.530	**2.971**	4.715299	7.629	87.316
DIVID	1231	0.0	545.07	**47.75**	45.68324	4.575	39.607
CAR	1365	0.0	244.00	**25.43**	24.59155	4.638	27.655
INNOV	1314	0.0	5.560	**3.68**	.980141	-.790	2.752
SEC.INT	1740	0.254	1.224	**1.004**	4.80892	15.192	308.627
IND.INT	1480	5.00	100.00	**69.46**	27.36177	-.876	-.495
UNEMP	1752	0.091	17.630	**5.22**	4.84402	1.121	.091
D.CREDIT	1449	4.645	160.76	**64.33**	33.1704	.190	-.279
ISL.CON	1752	0	1	**0.68**	.466	-.774	-1.402
DEV.EMER	1752	0	1	**0.311**	.4628	.820	-1.329
4-BIG	1752	0	1	**0.74**	.441	-1.067	-.863
IFRS	1752	0	1	**0.50**	.500	-.009	-2.002
ASSETS	1315	2.724	7.918	**6.22**	.84902	-.328	-.335
INFLA	1063	0.30	32.5	**6.88**	5.87388	1.277	1.528
LTO	1752	0	81	**21.07**	17.7276	.482	-.529
UA	1752	8	95	**69.00**	14.2380	-1.472	1.818

5.2 Regression Analysis

We present the regression results as well as their clarification in this section. We estimate three models. We estimate first the consequence of macrocosmic factors on the FP. Next, we estimate the importance on FS. Finally, we measure the impact of macrocosmic factors on dividends. Briefly, the outcomes supported the debating about for what extent macroeconomic factors across countries have a positive as well as negative and strong impact on corporate FP, dividends and FS. Thus, hypothesis H1, H2 and H3 are supported partially.To evade multicollinearity, correlation analysis of explanatory variables is conducted. The coefficients are not statistically significant, signifying that there would be no

strictness multicollinearity problematic in the regression analysis.

In model (1)as presented in table (4), which measure the impact of country factors on firm value as measured through ROA, the estimated coefficient of innovation offers indication of statistically negatively relationship with ROA at the 10% significance level. On the contrary, the analysis shows that, the estimated coefficient of secure Internet servers provides indication of the statistically positively association with ROA at the 1% significance level. This positive association is repeated for this the coefficient of DC at the 1% significance level. Finally, the estimated coefficient of individuals using Internet and unemployment provides no evidence of the relationship with ROA. Therefore, while we accept hypothesis H2.a for FP, we reject the other two hypothesesH1.a and H3.aconcerning with FS and dividends. Related to the control variables, while the analysis shows negative association between ROA and adopted accounting standards (IFRS), size and UA, we find a positive association with Long Term Orientation (LTO).

Regarding to the financial stability, which is measured by using Capital Adequacy Ratio in model (2) as, presented in table (4), the technology based on the individuals using Internet variable has shown a positive and significant coefficient pertaining to the FSat the 1% significance level. The analysis similarly finds a positive linkage between FS and unemployment at the 1% significance level. This significant positive is repetitive for the association with the DC at the 5 % significance level. The analysis supports the insignificant association between innovation and FS. For the control variables, while the analysis shows negative association between financial stability and size, we find a positive linkage for UA and inflation, whereas the other variables show no significant impact. Therefore, we accept hypothesis H2.c for the impact of technology as well as H1.c for the impact of DC and unemployment, while we discard the other hypothesis H3.cfor innovation. Consequently, this result validates with research

expectations, which states that the country factors level may effects on the corporate financial stability; the more likely they are to DC, unemployment and number of individuals who using the Internet. In model (3)that measures the impact over dividends as presented in table (4), the level of unemployment is negatively and statistically significantly in relation to value of dividends at the 5% significance level. In contrast, the level of DC is positively and statistically significantly in relation to dividends at the 5% significance level. The level of innovation, the 2 variables of internet is statistically insignificantly in relation to dividends. Consequently, we acceptH1.b for the impact of DC and unemployment over the dividends whereas, we reject the remaining two hypotheses H3.b and H2.b related to the effect of innovation and technology. Correlated with the control variables, whereas the analysis shows negative association between dividends, size and LTO, we find a positive linkage for inflation. However, the other variables (4-big, IFRS and UA) show insignificant impact.

In summary, the results related to the impact of innovation on corporate performance support the hypothesis, which shows that innovation has a negative consequence over FP with insignificant effect on dividends and FS. This result may justify based on the high cost for innovation and R&D by banks which effect negatively at least on the short term on the FP, while it may supporting and developing the FP on the long term.

The result supports the previous studies that found negative association between innovation and FP (e.g., Artz et al., 2010; Silva et al., 2017). The result rejects the result of other studies that found positive association(Gök&Peker, 2017; Jayani and Yan Hui, 2018; Hoang and Bui Hoang, 2019).It also rejects or studies that found no significant association (e.g., Kafetzopoulos and Psomas, 2015; Santos et al., 2018).Kandybin (2009)specified that cases of fruitful innovations translating into incomes are limited. Therefore, this negative influence may clarify according to, whereas innovation in short period might

reason likely loss, but through the long term, which might accelerate for positive effect to the FP (Visnjic et al., 2016).Further potential clarification for negative results is that, innovation is luxurious and hazardous revealing businesses to greater market variations and expenditures (Simpson et al., 2006) and possibly leading for negative FP. Santos et al (2014)determined that innovation is associated with energies of the institute to invent, and not to the direct result of innovation itself. Thus, while a company may allocate resources for create innovative products or services, real impressions of these efforts might not happen as of the very chancy nature of innovation.

The insignificant association between innovation and dividends does not support the result of preceding papers which found positive sign (e.g., Bao Yang et al., 2020) or negative indicator (e.g., Namryoung and Jaehong, 2019; Paudel andKiran, 2020). This insignificant impact may be justified according to the majority of the sample is developing which invest less in innovation. Then, the association between innovation and dividends is not clear as well as not supported. Correspondingly, the insignificant association between innovation and FS does not support the result of previous studies, which found positive indication (e.g., Anton Zaionts, 2020; Bai Liu et al., 2021) or even negative indicator (e.g.,Gonzalez et al., 2016). This insignificant influence for innovation can be justified according tostructure of the sample or the adopted measure for stability.

The analysis supports the negative influence for secure Internet servers on the FP with no significant for other two dependent variables(FS and dividends). Related to the impact of individuals who using Internet, we find a positive effect on FS and insignificant effect on stability and dividends. The effect of technology on the FP is matching with several literatures (e.g., Al-Azzawi and Altmimi, 2015; Dong et al., 2020; Belinda et al., 2020).This outcome is line with Arnold and Ewijk (2011) that demonstrated Internet has a definite influence on the core business. The development of Internet may affect traditional

formal and informal financial models, hence intimidating the existence the banks (Funk, 2019). Marvelous challenges are escorted thru opportunities. The progress of Internet has shaped the chance for developing the economic system. The quick development of Internet has efficiently endorsed the reform of universal financial services (Franklin et al., 2002). Internet based on Chen and Zhen (2011)argue that, innovation encouraged, and change the traditional financial services by applying e-finance.

The research result supports the insignificant linkage between technology and dividends as well as FS, which is matching, with Salahuddin and Gow (2016). In the other side, the result rejected other literatures that find positive or negative impacts for adopting technology (for positive: Owusu-Agyei et al., 2020; Belinda et al., 2020) and (for negative: Nguyen et al., 2020; Dong et al., 2020). The result support the debating about for what extent caring about technology may develop and enhance the corporate performance and practices ad FP but also affecting nothing over other factors as dividends and stability.

For the impact of unemployment, the analysis shows positive effect on the FS. This result rejects the outcome of Boateng et al (2015), Ozili (2018), who found a positive link. One clarification for the contradictory outcome could be that government through the sample proactively confine from extreme loaning during the times of high unemployment due to concerns that borrowers cannot refund the loans, therefore sinking the level of nonperforming loans that recovers stability during periods of high unemployment.

We find a negative effect for unemployment on the dividends. The research result is similar to outcome of Ciprian and Maria (2017) and Jabbouri (2016) who found a negative association between the state of economy and decisions of dividend. Managers in corporate tend to decline the dividend payments in good economic times as well as upsurge them in period of economic recessions (Glen et al., 1995). Finally, the analysis supports the positive consequence for the DC on the

three corporate indicators.This positive link between DC and FP is matching with Selma et al., 2015).It is also matching with Diaconua and Oaneab (2014), Ozili (2018), Rupeika-Apoga et al (2018), who finds positive impact on the financial stability. They support the point, which a mounting economy for banks continuously offers conducive environment for the development of a steady economic system. However, the result in contrast, refuses the outcome of Mirzaei (2011) who found negative coefficient of DC on bank stability. Hence, country factors have good and bad economic consequences over the banks. Therefore, banks should motivate the government and policymakers to ask for more considering of factors as internet and innovation to develop and enhance the level of FP, stability as well as dividends for their financial sector

Table (3): Correlation Matrix

	ROA	DIVID	TIER 1	INNOV	SEC.INT	IND.INT	UNEM	D.CRED
ROA	1	0.040	**0.295****	-0.027	**0.212****	**0.164****	**-0.14****	**0.109****
DIVID		1	.091	-.034	.027	-.037	-.038	.029
TIER 1			1	.002	.136**	.012	.088*	.013
INNOV				1	.199**	.254**	-.050	.274**
SEC.INT					1	.144**	-.042	.290**
IND.INT						1	-.690**	.635**
UNEMPL							1	-.493**
D.CREDIT								1
ISL.CON								
DEV.EME								
4-BIG								
IFRS								
SIZE								
INFLA								
LTO								
UA								

	ISL.CON	DEV.EM	4-BIG	IFRS	SIZE	INFLA	LTO	UA
ROA	0.042	**0.109****	**0.096****	0.013	**-0.217****	**-0.120****	-0.051	**0.061***
DIVID	.035	-.016	-.038	-.039	-.158**	.096	-.032	-.084*
TIER 1	.228**	-.064	-.070	-.162**	-.476**	-.024	.089*	-.099**
INNOV	-.079**	.281**	.180**	.088**	.142**	-.081*	-.086**	-.148**
SEC.INT	.084**	.164**	.026	.014	-.062*	-.114**	.242**	-.349**
IND.INT	-.380**	.460**	.683**	.484**	.326**	-.478**	-.195**	.234**
UNEMPL	.368**	-.381**	-.641**	-.392**	-.137**	.522**	-.053*	-.203**
D.CREDIT	-.049	.285**	.533**	.182**	.259**	-.482**	.173**	-.436**
ISL.CON	1	-.217**	-.389**	-.643**	-.384**	.199**	.183**	-.357**

DEV.EMER		1	.336**	.550**	.194**	-.134**	-.411**	.286**
4-BIG			1	.458**	.250**	-.563**	-.033	.199**
IFRS				1	.323**	-.254**	-.272**	.430**
SIZE					1	.045	-.203**	.189**
INFLA						1	-.118**	.016
LTO							1	-.471**
UA								1

Table (4): Regression analysis for the consequences of macroeconomic factors over the corporate financial indicators

	Model (1) Impact over financial performance				
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	5.892	2.350		2.507	0.012
INNOV	**-0.34**	**0.192**	**-0.072**	**-1.807**	**0.071***
SEC.INT	**0.000**	**0.000**	**0.265**	**6.356**	**0.000*****
IND.INT	-0.004	0.014	-0.024	-0.300	0.764
UNEMP	0.004	0.057	0.004	0.064	0.949
D.CREDIT	**0.057**	**0.013**	**0.402**	**4.349**	**0.000*****
4-BIG	-0.153	0.630	-0.014	-0.243	0.808
IFRS	-1.383	0.520	-0.147	-2.658	**0.008****
SIZE	-1.993	0.257	-0.359	-7.745	**0.000*****
INFLA	0.040	0.039	0.050	1.015	0.310
LTO	-0.030	0.012	-0.111	-2.447	**0.015***
UA	0.126	0.025	0.381	4.959	**0.000*****
ISL.CON	-0.681	0.543	-0.067	-1.254	0.210
Summary of model	F 12.139 Sig 0.000 **Adjusted R Square 0.176**				

	Model (2) Impact over the financial stability				
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	69.180	12.564		5.506	0.000
INNOV	-0.086	1.026	-0.003	-0.084	0.933
SEC.INT	0.000	0.000	0.063	1.462	0.144
IND.INT	**0.280**	**0.073**	**0.312**	**3.825**	**0.000*****

UNEMP	**1.479**	**0.307**	**0.291**	**4.823**	**0.000*****
D.CREDIT	**0.181**	**0.070**	**0.244**	**2.578**	**0.010***
4-BIG	-1.434	3.368	-0.026	-0.426	0.671
IFRS	-4.382	2.782	-0.089	-1.575	0.116
SIZE	-17.19	1.376	-0.594	-12.50	**0.000*****
INFLA	0.394	0.210	0.094	1.878	**0.061***
LTO	0.093	0.064	0.067	1.441	0.150
UA	0.340	0.136	0.197	2.496	**0.013***
ISL.CON	-0.535	2.904	-0.010	-0.184	0.854
Summary of model	F 19.329	Sig 0.000	**Adjusted R Square 0.305**		

	Model (3) Impact over the dividends				
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	151.564	30.402		4.985	0.000
INNOV	-1.969	2.483	-0.042	-0.793	0.428
SEC.INT	0.000	0.001	0.027	0.484	0.629
IND.INT	-0.258	0.177	-0.155	-1.456	0.146
UNEMP	**-1.589**	**0.742**	**-0.168**	**-2.142**	**0.033***
D.CREDIT	**0.316**	**0.170**	**0.230**	**1.861**	**0.063***
4-BIG	1.476	8.150	0.014	0.181	0.856
IFRS	-1.737	6.731	-0.019	-0.258	0.796
SIZE	-13.357	3.328	-0.248	-4.013	**0.000*****
INFLA	1.831	0.508	0.235	3.604	**0.000*****
LTO	-0.377	0.156	-0.146	-2.413	**0.016***
UA	-0.097	0.329	-0.030	-0.295	0.768
ISL.CON	-8.692	7.026	-0.089	-1.237	0.217
Summary of model	F 3.077	Sig 0.000	**Adjusted R Square 0.295**		

5.3 Robustness analysis

Here, we applied an additional of sensitivity analyses to check the robustness of the results. Firstly, as the research sample includes 150 IBs and 70 conventional banks, we apply the same previous models after we divided the sample into two groups. By other words, we moderate the nature of the banks for the association between corporate performance and macroeconomic factors. Related to the impact of macroeconomic over FP according to model (1) for Islamic banks' group, the analysis gives the same results as presented in table (5). For the second group (conventional banks), the

robustness analysis shows very different result as presented in table (6). It shows negative association between FP and the secure Internet servers and individuals using internet, whereas support the insignificant impact for other variables. Allied with the impact of macroeconomic factors over FS according to model (2) for Islamic banks' group, the analysis provides the identical consequences. Nonetheless, for the second group, the robustness analysis shows different result by shows insignificant link between FS and macroeconomic conditions of country.

Concerning with the influence of macroeconomic features over the dividends based on model (3) for Islamic banks' group, while the robustness analysis agrees with the original one that supports a negative association with the unemployment, it differs for the impact of DC as it shows insignificant impact. For the second group that used data of conventional banks, it's agree totally with the original analysis through support the negative association for the unemployment and positive association for the DC. However, it differs by present a negative association between dividends and secure Internet servers as well as individuals using internet. Overall, the additional analysis after spilt the sample into Islamic and conventional banks gives qualitatively similar results with specific differences.

Secondly, as 31% from the sample is developed and 69% is developing, we apply the same analysis after adding additional variable, which is the category of the country. This analysis as presented in table (7)gives qualitatively comparable results for the original one. Even, when we applied the same analysis after divided the sample into developed and developing countries, the analysis provides the analogous result. This result may justify for the weight of developing countries in the sample which research to almost 70%. Further research may select balanced sample to see for what extent the result will differ.

Thirdly, the original models measure the consequences of macroeconomic factors on firm-level performance. Here, we measure the opposite association by measure the impact of

corporate factors over the macroeconomic conditions. We seek to complete the bi-directional association between firm' performance and country level factors as presented in table (8). Related to the impact over innovation; the analysis shows FS is main determinants for enhancing the level of innovation by positive interact while dividends is effected by negative way. Concerning with the DC, the analysis shows ROA, dividends, and FS affects positively. Related to the unemployment, the result displays that, while ROA and dividends are effect negatively, the FS is positively influence on enhancing level of unemployment. Finally, the analysis shows for what extent the ROA and FS effect positively on the level of using the internet, while dividends have insignificant effect.

Robustness analysis: First group: Islamic banks

Table (5): Regression analysis for the consequences of macroeconomic factors over the corporate financial indicators for only Islamic banks

Model	**Impact over financial performance**				
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	8.112	2.988		2.715	.007
INNOV	**-.629**	**.238**	**-.125**	**-2.648**	**.008****
SEC.INT	**.000**	**.000**	**.322**	**6.548**	**.000*****
IND.INT	-.019	.018	-.098	-1.028	.305
UNEMP	-.027	.068	-.025	-.388	.698
D.CREDIT	**.108**	**.019**	**.749**	**5.613**	**.000*****
4-BIG	-.308	.769	-.027	-.400	.689
IFRS	-2.132	.630	-.171	-3.387	**.001****
SIZE	-3.173	.365	-.466	-8.704	**.000*****
INFLA	.179	.054	.204	3.283	**.001****
LTO	-.072	.017	-.239	-4.328	**.000*****
UA	.175	.034	.490	5.192	**.000*****
Summary of model	**Adj. R Square 0.253** Durbin-Watson 1.942 F 14.104 Sig 0.000				

Model	**Impact over the financial stability**				
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	133.37	23.798		5.605	.000
INNOV	-3.127	1.892	-.104	-1.653	.100

SEC.INT	.000	.000	.052	.792	.429
IND.INT	.474	**.144**	**.416**	**3.286**	**.001****
UNEMP	2.004	**.545**	**.316**	**3.675**	**.000*****
D.CREDIT	.268	**.153**	**.310**	**1.746**	**.082***
4-BIG	-1.677	6.123	-.024	-.274	.785
IFRS	-3.755	5.013	-.050	-.749	.455
SIZE	-28.78	2.903	-.707	-9.917	**.000*****
INFLA	1.036	.434	.197	2.389	**.018***
LTO	-0.055	.132	-.030	-.412	.681
UA	.262	.269	.123	.977	.330
Summary of model	**Adj. R Square 0.356** Durbin-Watson 2.017 F 11.417 Sig 0.000				

Model	**Impact over the dividends**				
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	65.80	10.240		6.426	.000
INNOV	.574	.851	.021	.675	.500
SEC.INT	9.068	.000	.020	.617	.538
IND.INT	.009	.045	.009	.190	.849
UNEMP	**-.474**	**.211**	**-.096**	**-2.248**	**.025***
D.CREDIT	-.006	.043	-.008	-.135	.893
4-BIG	-3.07	2.346	-.057	-1.312	.190
IFRS	-1.084	1.968	-.019	-.550	.582
SIZE	-1.591	1.185	-.042	-1.343	.180
INFLA	.280	.180	.054	1.555	.120
LTO	-.087	.051	-.062	-1.708	**.088***
UA	-.057	.083	-.034	-.681	.496
Summary of model	**Adj. R Square 0.291**Durbin-Watson 4.241F 13.562 Sig 0.000				

Second group: Conventional banks

Table (6): Regression analysis for the consequences of macroeconomic factors over the corporate financial indicators for only conventional banks

Model	**Impact over financial performance**				
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	-12.06	7.557		-1.596-	.111
INNOV	.361	.735	.024	.491	.624
SEC.INT	**-.002**	**.001**	**-.122**	**-2.255**	**.025***
IND.INT	**-.127**	**.044**	**-.194**	**-2.883**	**.004****
UNEMP	.225	.233	.058	.966	.334
D.CREDIT	.003	.032	.006	.102	.919

4-BIG	5.205	2.735	.079	1.903	**.058***
IFRS	-1.21	1.990	-.026	-.611	.541
SIZE	1.440	.531	.122	2.711	**.007****
INFLA	-.220	.106	-.089	-2.070	**.039***
LTO	-.015	.032	-.029	-.486	.627
UA	.349	.083	.244	4.178	**.000*****
Summary of model	**Adj. R Square 0.217** Durbin-Watson 1.885 F 7.305 Sig 0.000				

Model	**Impact over the financial stability**				
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	5.661	30.501		.186	.853
INNOV	-.952	2.493	-.073-	-.382-	.703
SEC.INT	.003	.004	.168	.859	.392
IND.INT	-.196	.154	-.210	-1.273	.205
UNEMP	-.820	1.246	-.157	-.658	.512
D.CREDIT	.159	.158	.239	1.006	.316
4-BIG	-.610	4.491	-.011	-.136	.892
IFRS	.423	3.462	.011	.122	.903
SIZE	-8.392	1.440	-.603	-5.827	**.000*****
INFLA	-1.240	.884	-.255	-1.403	.163
LTO	.382	.128	.755	2.995	**.003****
UA	.999	.270	.646	3.708	**.000*****
Summary of model	**Adjusted R Square 0.252** Durbin-Watson 2.223 F 4.826 Sig 0.000				

Model	**Impact over the dividends**				
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	75.47	27.210		2.774	.006
INNOV	1.551	2.645	.029	.586	.558
SEC.INT	**-.010**	**.003**	**-.161**	**-2.993**	**.003****
IND.INT	**-.562**	**.159**	**-.238**	**-3.541**	**.000*****
UNEMP	**-1.85**	**.840**	**-.131**	**-2.209**	**.028***
D.CREDIT	**.484**	**.116**	**.238**	**4.176**	**.000*****
4-BIG	35.97	9.848	.151	3.653	**.000*****
IFRS	12.929	7.164	.076	1.805	**.072***
SIZE	-8.360	1.913	-.196	-4.370	**.000*****

INFLA	1.167	.383	.131	3.045	**.002****
LTO	.004	.115	.002	.036	.972
UA	-.117	.300	-.023	-.391	.696
Summary of model	**Adjusted R Square 0.119**		Durbin-Watson 1.918 F7.855 Sig 0.000		

Table (7): Analysis for the impact of corporate financial indictors after control the nature of hosted country (developing and developed countries**)**

Model	**Impact over financial performance**				
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	5.548	2.373		2.338	0.020
INNOV	-0.29	0.199	-0.061	-1.465	0.143
SEC.INT	**0.000**	**0.000**	**0.278**	**6.401**	**0.000*** **
IND.INT	-0.06	0.014	-0.037	-0.464	0.643
UNEMP	-0.013	0.060	-0.014	-0.226	0.821
D.CREDIT	**0.061**	**0.014**	**0.426**	**4.472**	**0.000*** **
4-BIG	-0.183	0.631	-0.017	-0.289	0.772
IFRS	-1.140	0.571	-0.121	-1.997	0.046*
SIZE	-2.019	0.259	-0.364	-7.810	0.000***
INFLA	0.047	0.040	0.059	1.181	0.238
LTO	-0.03	0.013	-0.132	-2.659	0.008**
UA	0.132	0.026	0.399	5.067	0.000***
ISL.CON	-0.56	0.555	-0.056	-1.017	0.310
DEV.EMER	-0.60	0.578	-0.059	-1.039	0.299
Summary of model	F 8.468		Sig 0.000	**Adjusted R Square 0.270**	

Model	**Impact over financial stability**				
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	67.66	12.692		5.331	0.000
INNOV	0.155	1.065	0.006	0.145	0.884
SEC.INT	0.000	0.000	0.073	1.637	0.102
IND.INT	**0.270**	**0.074**	**0.301**	**3.636**	**0.000*** **
UNEMP	**1.404**	**0.319**	**0.276**	**4.398**	**0.000*** **
D.CREDIT	**0.196**	**0.072**	**0.265**	**2.707**	**0.007****
4-BIG	-1.563	3.373	-0.028	-0.463	0.643

IFRS	-3.316	3.051	-0.067	-1.087	0.278
SIZE	-17.31	1.383	-0.598	-12.52	0.000***
INFLA	0.426	0.213	0.102	1.997	0.046*
LTO	0.069	0.071	0.050	0.974	0.330
UA	0.365	0.139	0.211	2.620	0.009**
ISL.CON	-0.023	2.966	0.000	-0.008	0.994
DEV.EMER	-2.630	3.090	-0.050	-0.851	0.395
Summary of model	F 20.665	Sig 0.000	**Adjusted R Square 0.462**		

Model	**Impact over dividends**				
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	144.345	30.631		4.712	.000
INNOV	-0.817	2.570	-0.018	-0.318	.751
SEC.INT	0.001	0.001	0.053	0.923	.356
IND.INT	**-0.307**	**0.179**	**-0.184**	**-1.71**	**.088***
UNEMP	**-1.948**	**0.770**	**-0.207**	**-2.52**	**.012***
D.CREDIT	**0.388**	**0.175**	**0.282**	**2.221**	**.027**
4-BIG	0.861	8.139	0.008	0.106	.916
IFRS	3.355	7.364	0.037	0.456	.649
SIZE	-13.918	3.337	-0.259	-4.170	.000***
INFLA	1.982	0.515	0.255	3.851	.000***
LTO	-0.492	0.170	-0.191	-2.89	.004**
UA	0.024	0.336	0.008	0.072	.942
ISL.CON	-6.245	7.159	-0.064	-0.87	.384
DEV.EMER	-12.565	7.457	-0.127	-1.685	.093*
Summary of model	F 12.417	Sig 0.000	**Adjusted R Square 0.316**		

Table (8): The opposite association: the consequences of the corporate financial indicators over the conditions of macroeconomic factors

Model	**Impact over innovation**				
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	2.466	.699		3.527	.001
ROA	-.012	.014	-.062	-.827	.410
DIVID	**-.003**	**.002**	**-.148**	**-2.152**	**.033***
TIER 1	**.011**	**.003**	**.325**	**3.837**	**.000*****
4-BIG	-.046	.191	-.020	-.241	.810
IFRS	-.111	.150	-.076	-.741	.460

SIZE	.071	.081	.076	.871	.385
INFLA	-.055	.022	-.226	-2.451	**.015***
LTO	.000	.004	.013	.114	.909
UA	.012	.008	.123	1.474	.142
ISL.CON	-.217	.113	-.168	-1.918	**.057***
DEVE.EMER	.491	.139	.414	3.527	**.001****
Summary of model	F 9.691	Sig 0.000	**Adjusted R Square 0.365**		

Model	**Impact over technology of internet**				
	Individuals using Internet				
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	-.753	11.109		-.068	.946
ROA	**.477**	**.197**	**.082**	**2.419**	**.016***
DIVID	.015	.020	.025	.775	.439
TIER 1	**.183**	**.041**	**.164**	**4.433**	**.000*****
4-BIG	24.839	2.740	.401	9.064	**.000*****
IFRS	1.729	2.816	.032	.614	.540
SIZE	8.199	1.310	.254	6.260	**.000*****
INFLA	-1.010	.189	-.217	-5.345	**.000*****
LTO	-.101	.061	-.066	-1.673	**.095***
UA	.011	.076	.006	.146	.884
ISL.CON	**-2.879**	**2.620**	**-.049**	**-1.099**	.272
DEVE.EMER	**11.375**	**2.494**	**.192**	**4.561**	**.000*****
Summary of model	F 55.665	Sig 0.000	**Adjusted R Square 0.601**		

Model	**Impact over technology of internet**				
	Secure Internet servers				
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3724.36	2641.84		1.410	.159
ROA	**211.968**	**46.920**	**.208**	**4.518**	**.000*****
DIVID	1.078	4.642	.010	.232	.816
TIER 1	15.410	9.803	.079	1.572	.117
4-BIG	-1057.14	651.731	-.097	-1.622	.106
IFRS	784.398	669.69	.082	1.171	.242
SIZE	462.054	311.468	.082	1.483	.139
INFLA	-43.045	44.935	-.053	-.958	.339
LTO	63.040	14.412	.232	4.374	**.000*****

UA	-121.632	17.994	-.360	-6.760	**.000*** **
ISL.CON	97.737	623.027	.009	.157	.875
DEVE.EMER	3241.44	593.077	.312	5.465	**.000*** **
Summary of model	F 14.352	Sig 0.000	**Adjusted R Square 0.269**		

Model	**Impact over Domestic credit**				
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	39.039	10.581		3.689	.000
ROA	**.677**	**.188**	**.096**	**3.603**	**.000*** **
DIVID	**.046**	**.019**	**.064**	**2.480**	**.014***
TIER 1	**.142**	**.039**	**.105**	**3.623**	**.000*** **
4-BIG	27.155	2.610	.361	10.403	**.000*** **
IFRS	5.414	2.682	.082	2.018	**.044***
SIZE	14.124	1.247	.362	11.322	**.000*** **
INFLA	-1.399	.180	-.248	-7.771	**.000*** **
LTO	.068	.058	.036	1.181	.238
UA	-1.396	.072	-.599	-19.37	**.000*** **
ISL.CON	9.243	2.495	.130	3.704	**.000*** **
DEVE.EMER	16.256	2.375	.227	6.844	**.000**
Summary of model	F 112.090	Sig 0.000	**Adjusted R Square 0.753**		

Model	**Impact over Unemployment**				
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	10.761	2.104		5.114	.000
ROA	**-.071**	**.037**	**-.069**	**-1.899**	**.058***
DIVID	**-.011**	**.004**	**-.104**	**-2.987**	**.003** **
TIER 1	**.014**	**.008**	**.070**	**1.770**	**.078***
4-BIG	-3.905	.519	-.356	-7.522	**.000*** **
IFRS	1.146	.533	.118	2.148	**.032***
SIZE	.060	.248	.011	.242	.809
INFLA	.209	.036	.254	5.842	**.000*** **
LTO	-.066	0.011	-.241	-5.728	**.000*** **
UA	-.051	.014	-.151	-3.575	**.000*** **
ISL.CON	1.813	.496	.175	3.653	**.000*** **
DEVE.EMER	-3.164	.472	-.302	-6.698	**.000*** **

Summary of model	F 44.131	Sig 0.000	**Adjusted R Square 0.543**

6. Conclusion and Recommendations

The research is enthused thru the increasing interest in the effects of macroeconomic factors on the corporate practices and performance as corporate governance (CG) or variable as risk, disclosure and cost of capital, whereas shortage literatures focus on measuring the influences of country level factors or macroeconomic determinants on firm performance and financial practices. In this research, insights are provided into macro factors (unemployment, domestic credit, secure Internet servers, individuals using Internet and innovation) related to corporate performance and accounting indicators (FP, dividends and FS). the sample includes 220 banks, which are positioned across 25 countries over a period spanning from 2012 to 2019. In conformity with preceding literature that investigated the significances of macroeconomic factors on the firm performance, we find related to the Financial performance a positive linkage with secure Internet servers and with Domestic credit, while we find a negative association with innovation. However, we find that other factors as unemployment have no significant consequences. Concerning with the effect on dividends, we support a negative association with unemployment and positive association with domestic credits, whereas insignificant association technology variable and innovation. Related to the linkage with the financial stability, the research analysis shows positive association with individuals using Internet as well as positive association with unemployment and with domestic credit.

Moreover, the result remains the same with slight differences after we applied some robustness analyses. These consequences lead us to remark that the macroeconomic conditions have impacts over corporations by positive and negative way. Overall, the result displays the variance in consequences for each macroeconomic variable on corporate financial indicator. The research investigation supports the theoretical discussion as economic theory andendogenous growth theory about the consequences of macro factors on corporate factors.

Considering the above conclusions, numerous policy implications are offered: The government must support the supervision and upgrade of Internet generally as well as internet finance by banks. Ways of doing this include developing the infrastructure for the technology, regulate the market admittance system of Internet financial institutions; create a contemporary financial system through manageable hazards, and, sustain Internet financial information safety. Related to the innovation, government should motivate the banks and other firms in the market for developing their services by giving more consideration for investing in R&D. It can achieve by giving tax exemption for banks or firms that invest in technology and innovation to develop their services and enhance their quality for customers.

In addition, considerate the dividend policy may improves the prediction of dividend payments and the choice of the suitable assessment models that upsurge the stockholders' confidence and increase the market activity and economic growth. Banking directors should consider the character of institutional quality as well as financial structure to the banking stability.

Nevertheless, the research results are subject to specific limitations that consider potential areas of further examination thru investigation that seem to be worth research. While in this paper we focused on financial sector; advance research may apply on non-financial sectors as well as may consider the

impact of these macrocosmic factors on different scale of business such as small and medium enterprises (SMEs) which will add value for the literature in this field. The future research may include additional corporate variables such as cost of capital, earning management, disclosure. Furthermore, the further investigation may add extra macroeconomic factors such as education and legal tax rules. Furthermore, the study neglected the effect of crisis as COVID-19 on this association. Consequently, the interested academic in this filed can measure the impact of this pandemic as a mediator to see for what extent the association between corporate performance and country factors before and after the crisis may change.

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