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To cite this article: Josephine Ofosu-Mensah Ababio, Anthony Q.Q. Aboagye, Charles Barnor & Samuel Kwaku Agyei (2022) Foreign and domestic private investment in developing and emerging economies: A review of literature, Cogent Economics & Finance, 10:1, 2132646, DOI: [10.1080/23322039.2022.2132646](https://doi.org/10.1080/23322039.2022.2132646)

To link to this article: <https://doi.org/10.1080/23322039.2022.2132646>



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Published online: 18 Oct 2022.



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Received: 21 June 2022
Accepted: 02 October 2022

*Corresponding author: Samuel Kwaku Agyei, School of Business, University of Cape Coast
E-mail: sagyei@ucc.edu.gh

Reviewing editor:
Walid Mensi, University of Tunis el Manar, Tunisia, TUNISIA

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DEVELOPMENT ECONOMICS | REVIEW ARTICLE

Foreign and domestic private investment in developing and emerging economies: A review of literature

Josephine Ofosu-Mensah Ababio¹, Anthony Q.Q. Aboagye², Charles Barnor¹ and Samuel Kwaku Agyei^{3*}

Abstract: This study surveys and synthesizes the literature on foreign and domestic private investment over the period 1980–2022 with evidence from developing and

ABOUT THE AUTHOR

Josephine Ofosu-Mensah Ababio is a lecturer, a research fellow, and a consultant, and she is currently at the University of Professional Studies, Accra. She holds a PhD and an MPhil/MBA in Finance from the University of Ghana, an M.Ed. Administration in Higher Education from the University of Cape Coast, and a Bachelor's degree in Accounting and Economics from the University of Ghana. She is a holder of Advanced and Ordinary level certificates. She also holds a Post-Graduate Diploma in Management from IPMA (UK), a Securities Industry Course from the Ghana Stock Exchange, and a Final Diploma in Professional Administration from CIMC, Ghana. She is a member of the Chartered Institute of Professional Administrators and the International Professional Managers Association (IPMA), UK. She has taught, supervised, examined, and mentored both undergraduate and post-graduate students for over a decade. She also has over a decade of industry and administrative work experience and expertise in trans-disciplinary projects. She is an investment and strategic financial management consultant, and has consulted on personal and institutional financial capacity building. She serves on corporate boards and on some university committees. She has published in peer-reviewed finance, economics, and development-related journals. She serves as a reviewer for reputable international journals, including *Cogent Economics and Finance*, and has made several presentations at local and international conferences. Her research interests span investment and portfolio management, financial inclusion, banks and capital markets development, institutional quality, financial innovations for inclusive finance, Covid19-development finance, and these areas ultimately connect to the attainment of the principle of inclusive development.

PUBLIC INTEREST STATEMENT

Low private investment continues to be the major drawback to national development, especially for developing countries. This can be attributed to scarce capital (finance), skilled labour, plant and machinery; macroeconomic instability, poor managerial acumen, and social risk, which includes crime and endemic institutional corruption. Nonetheless, private investment has been described as the key driver of the economic prosperity of nations. Private investors may play key roles in job creation, wealth creation, and poverty reduction by providing funds needed for investment, ensuring their productive use, and monitoring to achieve desirable outcomes whilst adhering to the principle of inclusive development.

This study analysis the theoretical position as well as empirical evidence on foreign and domestic private investment in developing and emerging economies. The study provides new evidence that domestic investors' participation in investment programs and activities remains very low because their initiatives and efforts are often obstructed, and they become discouraged. It evidently also shows that DPI must be completed with adequate investment from foreign sources.

Developing partners and governments of developing countries should therefore focus on prioritizing DPI, attracting adequate FDI, and keenly addressing the challenges associated with PSI, which were identified and emphasized in the study.

emerging economies. The documentary sources method was used to examine one hundred and forty (140) peer-reviewed articles (selected based on source, journal of publication, database, time frame, relevance language, geographical restrictions, and search descriptions) published in a broad range of internationally recognized journals, with special analytical focus placed on forty (40) recent articles. It provides fresh evidence that literature on overall private investment and that of foreign direct investment have been given paramount interest and attention, but domestic private investment has received relatively diminutive attention to date. This review will serve as a roadmap, indicating the current state, contributions made, and unsolved issues in the extant studies as well as situating works to enrich the literature. It, therefore, offers specific directions for researchers, academics, and practitioners.

Subjects: Economics and Development; Economics; Finance

Keywords: private investment; foreign direct investment; domestic private investment; developing and emerging economies; economic growth

1. Background and rationale for the review

Private investment (PI) is key to the economic prosperity of every nation, and this has been demonstrated by emerging and newly industrialized nations. Recent empirical studies in Africa, Asia, and Latin America have shown beyond a shadow of a doubt that PI and economic growth are inextricably linked (Acosta & Loza, 2005; Adams, 2009; Alfa & Garba, 2012; Sadiq et al., 2021). Indeed, many cross-country empirical investigations have shown private sector investment to be one of the most robust determinants of a country's successive economic growth and development (M. Agosin & Machado, 2005; Buch et al., 2014; Everhart & Sumlinsk, 2002; Hoeffler, 2002). Moreover, econometric evidence (Dupasquier & Osakwe, 2003; Everhart & Sumlinsk, 2002; Kinkyo, 2007; Rousseau & Kim, 2007) suggests that PI, rather than government investment, has a stronger and more beneficial impact on development. This is likely so because PI is more productive and less closely allied with corruption.

Inadequate PI seems to be the major obstacle to economic growth and development in many developing and emerging economies (DEEs). Increased PI, especially domestic private investment (DPI) for DEEs, has been encouraged in recent years, to help create jobs and wealth, boost economic growth, and reduce unemployment and poverty. Domestic investment in Africa, for example, remains very low (Anyanwu, 2006), which is incompatible with accelerated and/or sustained economic growth. Africa had just 19.8% investment rates on average between 1991 and 2000, compared to 34.5 percent in East Asia and the Pacific, 24.1 percent in Europe and Central Asia, 21.3 percent in the European Union, 22.1 percent in high-income countries, 26.3 percent in high-income non-OECD countries, 22 percent in high-income OECD countries, and 20.8 percent in Latin America and the Caribbean. The statistics show that Africa indeed has the lowest regional comparative domestic investment rates. Moreover, total domestic investment as a percentage of GDP fell from 25% in the mid-1970s to about 20% in the early 1990s, with PI accounting for about 12% (Anyanwu, 2006). For there to be development in a local economy, it must come from the indigenes themselves, not mainly from outsiders or foreigners. Since 2010, it has been recorded that about 80 percent of the approved investment projects in Malaysia have come from domestic sources and the remainder of about 20 percent came from foreign direct investment (Malaysia Investment Performance Report, 2011). This is in line with Anyanwu (2006) and the UN's Monterrey Consensus (2003), which states that "no matter how globalized the world becomes, development and financing begin within or at home."

Unfortunately, while foreigners continue to shun Sub-Saharan Africa (SSA), domestic or local investors appear to have fled the scarce capital. Improved conditions or sufficient resources for domestic investment should flourish in order to achieve real and sustainable DPI. The mobilization of domestic resources must therefore be complemented by external resources. Many governments consider it a priority to attract FDIs because this not only increases the formation of capital but can also enhance capital stock quality. Since the mid-1990s, FDI has been the largest external financing source for developing countries (Kosova, 2010). Some countries have employed special policies to attract foreign investment as well as to build domestic capacities, such as preferential taxation programs, preferential loans, and investment treaties. Singapore (Wong & Chan, 2003) and, more recently, China are two examples.

New products, procedures, and practices introduced by FDI will implement new technologies not previously used in host economies. Multinational companies (MNCs) incorporate and develop new expertise to manage the new technologies introduced (Grossman & Helpman, 1991). In addition, new ideas brought in by FDI can increase the stock of ideas in the host country, stimulating innovation. The tangible and intangible assets of FDI include resources (capital), knowledge, skills, market access, brand name, business and managerial processes, competitive pressures, technology, and environmentally-friendly innovations (Caves, 1996). MNC affiliates, managers, and workers who have received training or previous employees may transfer their skills, expertise, and management processes to local companies when they change jobs or start their own businesses. The degree and scope of MNCs' technical benefits are determined by the host's ability to absorb and function with the technology (Girma, 2003).

However, FDI has the potential of weakening host-country businesses (Caves, 1996). FDI can kill indigenous businesses, firms, or industries due to extreme competition caused by MNCs' market power. FDI can also suppress local technological growth, resulting in "crowding-out" effects (Ram & Zhang, 2002). Nonetheless, MNCs may not deliberately transfer technology to host countries so that their technological monopoly can be preserved.

Indeed, the proposition that inhibits or facilitates PI activities, particularly DPI activities in DEEs, appears to be more theoretical than empirical studies.

However, developed and emerging economies would not be well placed to devise realistic policies that promote domestic and foreign private investment, economic growth, and development without proven or established empirical studies. Against this backdrop, this review focuses on the state of affairs, gaps in knowledge, contributions made, and future directions of private investment, FDI, and most importantly DPI research in DEEs'. It will enable researchers to know where they need to concentrate on and new directions academics and practitioners in the fields could pay attention to.

This study continues as follows: the next section describes the key concepts and issues, considers the theories for the studies, and reviews recent literature; followed by a methodology section that considers the chosen procedure employed; then a section that presents the findings and analysis of the review follows; and the final section highlights the conclusion, gaps identified, and future research directions.

2. Description of key concepts and issues

2.1. Private investment: domestic and foreign private investment

Private investment (PI) consists of domestic private investment (DPI), usually owned by indigenous or local private investors; and foreign direct investment (FDI) and/or international portfolio investment (IPI), both owned by foreign or international private investors.

2.1.1. B1. Description of key concepts

2.1.1.1. Investment.

Generally, investment entails making a current sacrifice in exchange for a future benefit or higher returns. Public and private investments make up the majority of investments in any economy. Government spending on projects, mainly but not necessarily in the fields of social and economic infrastructure, is referred to as public investment. Private investment refers to profit-generating ventures, projects, or investment programs made by private persons, enterprises, or corporations in fields such as direct production and sale of goods and services. Also, at any given time in an economy, an investment may be divided into domestic and foreign investments. So, both public and private investments may be owned by local or international individuals and/or governments (Ofosu-Mensah Ababio et al., 2018).

2.1.1.2. The dynamics of domestic private investment (DPI).

According to DFID (2001), high DPI levels must be maintained in developing economies in order to achieve the growth rates needed to lift poor people's incomes above the poverty line. Developing economies must also increase sufficient levels of DPI in order to feed and provide sustainable employment to their rising populations. Indeed, domestic private investors may play a key role in poverty reduction by providing funds for investment and ensuring their productive use, as well as by guiding investment to achieve desired social and economic outcomes.

Besides, domestic private investors can have a significant impact on the economy's rate of growth by ensuring that money is put to the most efficient use and that investments increase employment while adhering to sustainable development principles. For example, in China, which receives the most foreign investment (Ali et al., 2019) of any emerging economy, foreign investment accounts for less than 15% of total gross fixed capital formation (total investment). Anyanwu (2006) points out that much higher average growth rates sustained over time are needed to significantly reduce poverty in SSA, and this requires a much higher DPI.

Ofosu-Mensah Ababio (2019) provides evidence that domestic investment is clearly the driver of economic growth; it boosts the economy's productive potential, lays the groundwork for higher future income, generates employment, and thereby reduces poverty. So, a more efficient strategy is needed, one that generates growth through higher levels of DPI, backed by appropriate public investment in basic infrastructure (DFID, 2002). DEEs should as a result prioritize promoting domestic investment, as well as reducing and/or eliminating investment barriers that stifle domestic private initiative or involvement of local investors in business ventures.

2.1.1.3. Dynamics of foreign direct investment (FDI).

FDI will help DEEs achieve their development goals in a variety of ways, including FDI will fill the resource (capital) gap by providing financing for investment projects, as most DEEs have low saving rates, making it difficult to finance investment ventures required for rapid growth and development. Job creation and development- by providing additional resources to DEEs, FDI will directly generate new job opportunities, resulting in increased employment and growth. It can also increase jobs indirectly by strengthening relations with domestic businesses. Integration into the global economy- FDI transparency would boost foreign trade, assisting DEEs in their integration into the global economy. Transfer of modern technologies- foreign companies also invest heavily in research and development. As a result, they typically outperform local DEE firms in terms of technology.

Consequently, the FDI will provide DEEs with low-cost access to emerging technology and expertise, improving local technical capabilities and competitiveness in global markets; opening up an economy to international firms increases commodity market competition, inducing domestic firms to distribute and use capital more efficiently; raising skills of local manpower- FDI raises the skills of local manpower by training and learning through practice, thus increasing their level of productivity. Asia, in particular, has become increasingly accessible as a result of the emergence of

a favorable environment and has begun to deliver ostensibly appealing investment opportunities to draw investors from all over the world (DFID, 2001; World Bank, 2003).

2.1.1.4. *Developing economies (DEs).*

The term “developing economies” comes from the economies of developing countries (DCs) and has no universal definition. Generally, DCs are countries that, compared to “advanced countries”, have relatively lower living standards, an underdeveloped industrial base, a lower Human Development Index (HDI), and a weaker institutional framework, hence being referred to as “less developed countries” (LDCs) in the 1970s. Since some people considered the word “LDCs” to be politically unacceptable, the terms “emerging market” and “frontier market” were coined. The word “frontier market” refers to developed countries whose economies are slower than those of “emerging markets.” The frontier market is an economic term coined by Farida Khambata of the International Finance Corporation (IFC) in 1992. Some frontier market countries were once considered emerging markets, but have since reverted to frontier status. Similarly, emerging markets are said to possess some features of developed markets and are expected to be developed markets in the near future or were developed markets in the past. A World Bank economist, Antoine-van Agtmael, was the first to use the terminology “emerging markets” in the 1980s.

2.1.1.5. *Emerging economies (EEs).*

Emerging economies generally refer to the economies of growing and developing countries, usually with an emphasis on their financial markets (capital market, money market, secondary market, primary market) being well-developed and efficient to have a strong economy and sustained growth. An emerging economy is a country that has some characteristics of a developed economy, but it is not yet a developed economy. This includes countries that may become developed economies in the future or were in the past. It may be a nation with social or business activity in the process of rapid growth and industrialization. The economies of China and India are considered to be the largest emerging economies. The hedge fund capital of the two nations hit a new high of \$121 billion in the first quarter of 2011. The “BRIC” (Brazil, Russia, India, and China) countries are the four largest emerging and developed economies in terms of nominal or inflation-adjusted GDP. The next four largest economies are “MIKT” (Mexico, Indonesia, South Korea, and Turkey) countries, in spite of the fact that some outlets do not consider South Korea to be an emerging economy. The economies of most developing countries are also considered emerging economies (Antoine-van-Agtmael, 1980).

2.1.2. *B2. Description of key issues*

3. Investment determinants

Investment determinants are factors that influence private and public investment. The cost of capital in terms of interest rates, real GDP/output growth, public investment, and the availability of funds from money and capital markets to undertake investments, among other things, are the major determinants of PI.

3.1. Cost of capital- interest rate

When viewed as a whole, the relationship between interest rates and investment as depicted by theory is complex and ambiguous. Neoclassical theory suggests that high-interest rates raise the user cost of capital, which reduces the investment rate (D.W. Jorgenson, 1967; Jorgenson, 1963). Many projects’ net profits would be smaller or even negative at a higher interest rate, preventing potential investors from investing. In a symmetrical way, at a lower interest rate, more projects would become profitable, allowing investors to put more money into them. Empirical works have established a robust negative relationship between the interest rate and investment (Awad et al., 2021; Frimpong & Marbuah, 2010; Jongwanich & Kohpaiboon, 2008; Ofosu-Mensah Ababio et al., 2018).

Contrarily, McKinnon (1973), and Shaw (1973) say that investment and real interest rates could have a positive relationship. According to them, a higher real rate of interest would

increase savings, resulting in an increase in domestic credit volume and higher equilibrium investment. This theory, known as the McKinnon and Shaw hypothesis, is based on the premise that the greatest obstacle to investment is the availability of financial capital rather than the cost of funds. Nominal interest rates are high in most DEEs, but real interest rates are mostly negative due to high inflation rates. Savings are discouraged by low or negative real interest rates, which reduce the amount of money available for investment (Aguerrevere, 2009; Ang, 2009; Emran et al., 2007). The interest rate may have a negative impact on investment through the saving channel in this situation. Thus, the interest rate may have a negative impact on investment in such a situation.

3.2. Output (real GDP) growth

The growth rate of real output, according to neoclassical investment theory, is positively linked to investment because it reflects increases in aggregate demand for output that investors aim to satisfy (D.W. Jorgenson, 1967; Jorgenson, 1963). As a result, the theory proposes that real GDP growth affects PI in a positive way. Thus, the neoclassical model predicts a positive relationship between investment and aggregate production. The “accelerator effect” is another name for this phenomenon. This relationship can be derived theoretically using the flexible-accelerator theorem, assuming that the underlying production mechanism has a fixed relationship between the desired capital stock and the level of actual output. Empirical evidence supports this accelerator effect, signifying that fast production growth is beneficial and that high output growth is linked to high investment rates (Frimpong & Marbuah, 2010; Jongwanich & Kohpaiboon, 2008; Ofosu-Mensah Ababio et al., 2018; Ouattara, 2005). Accordingly, it suggests that PI is positively linked to real output growth.

4. Public investment -infrastructure

The public sector in developing countries predominantly plays a large role in economic activity via state investments. This view is supported by the work of Tilahun (2021) on determinants of public investment in Ethiopia. The impact of public sector investment on private sector investment could either result in a “crowding in” or “crowding out” effect. The Crowding out effect is contended to be less prevalent in developed economies when compared with developing economies even though evidence supports a threshold effect on crowding out for developing economies (Penzin et al., 2022). Agyei (2019) argued that public and private investments are compliments and mutually dependent in sub-Saharan Africa (SSA). Public and private investment will complement each other when the government invests primarily in infrastructure. When that occurs, the relationship between public and private investment will be beneficial, resulting in a crowding-in effect (Verma & Saleh, 2011). Through the provision of infrastructural support, public investment can encourage and stimulate PI (Badawi, 2003; Bathla & Aggarwal, 2022). Increasing production could increase capital efficiency and improve overall resource availability. Furthermore, if the economy is lethargic, a surge in public investment will stimulate domestic demand, leading to an increase in private investment. Especially where public investment includes useful infrastructure, such as transportation systems, hospitals, schools, water and sewage systems, road networks, and the like, public investment operation can be complementary to PI, and hence support private investment. These types of projects have a higher average rate of return on private investment. Public sector investment, however, will impede PI operation if it substitutes for or crowds out PI (Badawi, 2003). When further public sector investment necessitates raising potential tax and domestic interest rates, or when the public sector generates investment goods that compete directly with private goods, the aforesaid happens. Everhart and Sumlinski (2002) established that corruption reduces the efficiency of public investment, which reduces private investment. Similarly, Agyei (2017) revealed that governance structures (control of corruption, political stability, regulatory quality and rule of law) are catalysts for public investment in SSA. In brief, the commonly held belief is that public investment in DEEs will complement, rather than compete with, private investment.

5. Funds availability: credit to the private sector/ money and capital markets

5.1. A. Credit to the private sector

In DEEs, many private local businesses depend mainly on credit to undertake their investment activities, projects or operations. The domestic financial system serves as a source of financing for foreign investors too. Therefore, access to credit as far as investors are concerned is an important factor since it provides external finance to investors. It is generally argued that it is sometimes the availability of credit rather than the cost of credit that determines the level of investment. Credit availability is found to have a strong positive and statistically significant impact on PI which corroborates the empirical evidence of Emran et al. (2007), Jongwanich and Kohpaiboon (2008), Ofosu-Mensah Ababio et al. (2018), and Abbas et al. (2022) opine that the effect of credit availability on private investment transcends aggregate analysis to include sector-wise private investment. Using data from Pakistan, they argued that private investment in agriculture, industry and service rely heavily on credit availability. A firm may have a good investment opportunity and yet it may have to give it up because the firm does not have access to enough financing in which case underinvestment arises. Undoubtedly, the limited flow of credit to entrepreneurs especially those in the productive sectors has a serious adverse consequence on the investment participation and thriving of a country.

However, lack of access to finance is consistently cited in surveys as a constraint to PI activities in developing regions. Ayeni and Nsiah (2020) finds low credit to the private sector as the second major constraint to private investment in Gambia. There is evidence of demand for external finance by enterprises that want to expand beyond the limits of self-finance, but they have historically lacked access to credit (Aryeetey, 2005; Asante, 2000). The consequence of the unavailability of credit is that it makes firms unable to raise funds from outside parties to finance positive net present value projects, either in the form of equity or debt (Myers & Majluf, 1984). Thus, the firm's investment is restricted to internally generated funds. Moreover, if outside finance could be cheaper, reliance on internally generated cash flow is a sign of under-investment.

5.2. B. Financial markets: money and capital markets

The role of financial markets in allocating investment capital to high-return investment activities is critical (Greenwood & Smith, 1997). The stock market is a comparatively less expensive system to raise funds for investment activities. Capital markets are viewed as a means for encouraging savings, directing savings into productive investment, and improving investment efficiency or productivity (Adams, 2009; Battalio & Schultz, 2011).

DEEs recognize the private sector as the engine for EG, but the ability of the private sector to play this important role more effectively will depend on the availability of an effective and well-developed capital market, and the ease with which the private sector mobilizes long-term funds in the form of debt and equity funds for carrying out investment programs. Bank loans and external borrowing may be the only sources of credit available for PI financing due to the lack of long-term financing (particularly equity finance) and futures markets (Benjamin & Phimister, 2002), especially in DEEs. Underdeveloped capital markets and slothful financial intermediation in DEEs are thus other critical factors hampering private sector investment.

A number of studies by Adams (2009), Anyanwu (2006), and Fowowe (2011) document that there is a close association between low domestic investment rates and low domestic savings in developing economies due to underdeveloped capital markets, amongst a host of other factors. However, "what determines investment" remains very much an open question in research.

6. Investment constraints

Investment constraints are both limiting conditions and a specific aspect of a structured investment policy statement, which is a set of guidelines under which both public and private institutions control their financial funds. Major investment constraints discussed include finance constraints;

marketing, advertising, technology constraints; policy, infrastructure, institutional constraints; and management/ administrative constraints.

7. Finance constraints

The main challenge facing private investors and enterprises in DEEs is access to affordable credit (Aryeetey, 2005; Asante, 2000; Emran et al., 2007; Jongwanich & Kohpaiboon, 2008; Ofosu-Mensah Ababio et al., 2018). Costs and availability of funds are critical issues for private investors particularly SMEs (Sardo & Serrasqueiro, 2017). In particular, high lending rates have been a major impediment to PI, whilst readily available funds to private investors boost investment activities. The higher the funds made available to the private sector, the higher the level of investment (Ayeni & Nsiah, 2020; Cooper & Ejarque, 2003).

The following are the questions and/or issues raised by researchers investigating access and cost of finance. What factors inhibit enterprises' access to finance for investment? How do these factors differentially affect the different kinds of enterprises? Are private enterprises increasingly finding it difficult or easy to attract and repay credit needed for their investment projects, i.e., are funds readily available and affordable for investment programs? Is there the existence of an efficient capital market where an investor can easily raise long-term funds through equity, debt, or derivatives? Is the capital and money market capable of providing adequate funds to drive PI? What policies are most effective to increase access to and reduce the cost of funds?

8. Market, advertising, and technological constraints

Economies with a large population size are more likely to achieve higher productivity and, moreover, have the market base to drive investment activities. In this view, population size is indicative of readily available demand for products produced by the private sector. Accordingly, having a ready market would encourage private businesses to improve quality, increase or expand their operations and investment both internally and externally.

The issues explored here are as follows. Is there readily available demand for products (goods and services) both internally and externally (export), or are there uncertainties or a lack of demand? Is there promotion of products through sponsorship of private entrepreneurs at international trade fairs, advertisement of products inland, and international media? Whether the state of affairs has made it difficult or easy for private enterprises to attain a large market share, and be able to compete in a dynamic environment or internationally. Is it easy or difficult for local entrepreneurs and investors to gain access to sub-regional, AU, and EU markets to trade, or does access remain a major challenge?

Moreover, the ability to acquire technical knowledge, adopt new technology, and easily acquire modern equipment or replace obsolete machines to operate at full capacity (Garleanu et al., 2012) is critical. In this regard, the following are among the questions or issues raised in examining technological constraints: Why is technology relevant? Whether there is enough technical knowledge, and firms can easily acquire modern equipment, machines, buildings, vehicles and replace obsolete/old/overused equipment to enhance their operations? Do private investors have the capacity to adopt new technology or changes in business investitures (installation, inaugurations)? Do entrepreneurs have the ability to operate at full capacity or increase capacity utilization as well as opportunities to improve quality and packaging to enhance export and local demand? Is technology transfer considered one of the most significant channels by which a foreign company's presence will generate positive externalities in the host country? (Korajczyk & Levy, 2003).

9. Management, human capital development, and administrative constraints

Managers of private sector businesses usually lack the needed or required acumen, expertise, managerial skills, or capabilities to manage their operations or activities. Most private investors fear losing control of the entire business, hence unwilling to engage the services of capable professionals, nor are they prepared to formalize their businesses or operations. Consequently, leading to slow or no

growth and the short survival of private businesses in most DEEs. The following are among the issues that were examined: Is there a scarcity of business knowledge, financial skills, and management abilities? Are smaller businesses more likely to have fewer business skills than larger businesses due to a lack of training resources? Do small firms mean that managers and owners must perform a broader variety of tasks and therefore have fewer opportunities to specialize? Is management quality important—to signal that managers and business owners have the financial, organizational, and managerial skills to manage a business's growth?

Firms must invest in human capital development in order to implement innovative and more efficient technologies. In most cases, new technologies necessitate major operational changes, which are best done by a professional workforce. Businesses may also penetrate new markets or expand with the help of a professional workforce. Even though educational attainment has increased in many developing regions, many businesses still consider employees' lack of skills or inadequate education to be a significant roadblock to their operations (Acemoglu & Robinson 2001). This is especially true of African countries, which must make strides in order to catch up to Europe, South East Asia, and America.

To meet the educational challenge, DEEs must reform their educational system to enhance both basic and tertiary education, as well as equip their labor force with skills necessary for businesses to invest efficiently, as stated in the Sustainable Development Goals (2015). Besides, administrative costs associated with enterprises' operations and activities, usually serve as an impediment to smooth operation, especially with regard to huge wage bills, utility bills, and other operational expenses (He & Catulli, 2014).

The following are among the issues, and questions raised and investigated: Is administrative cost a relevant factor? Are high wage bills and utility bills detrimental to private investment? Whether managers of private sector businesses have the needed or required acumen/expertise/managerial skills or capabilities to manage their own operations or activities? Whether the ownership structure of the private sector has a bearing on its performance? Whether the form or type of business: sole proprietorship, family business, partnership, limited liability; has a bearing on performance? Whether the size of a business -small, medium, large- has a bearing on performance? Do private businesses grow vertically or horizontally? What are the causes of enterprise closures or survival; do private businesses have high or low survival rates? Are private investors interested in formalizing their activities or operation; or do they fear losing control of the entire business when formalized? (Stoughton et al., 2011).

10. Policy, infrastructural, and institutional constraints

Governments are responsible for formulating workable policies, creating an enabling environment for the private sector to create wealth and jobs, and ultimately reducing unemployment and poverty. Avoidance of frequent policy changes due to political instability resulting from coups d'états makes government policies uncertain and unpredictable (Aryeetey, 1994). Practical or realistic government policies in the private sector that are free of interference or interruption promote PI existence of competent support institutions with good systems and structures or government social and economic infrastructure does promote private investment. But a lack of institutions, systems, and structures affects the smooth operation of private businesses (Rossiter, 2002). Many observers have come to believe that complex system of policy, tax administration, and policy laws lacking clarity, efficiency, transparency, and also bureaucratic red tape, are major obstacles to the growth of PI in many DEEs (Aysan et al., 2007; Marandu, 2004).

Among the most frequently raised and investigated questions or issues are the following: what are the binding policy constraints for firms? Whether government policies on PI are unattainable or unrealistic and serve as interference, interruption, or hindrance to PI, remains to be seen. Thus, does the government formulate workable policies and create an enabling environment for the private sector to thrive smoothly? How does a policy change affect private sector operations? Does

the government's proclamations, statements, or attitude toward private businesses encourage long-term investment rather than short-term trading; does such an attitude make it safe or unsafe for companies to operate or expand? do they encourage more local entrepreneurs to invest, and as well, attract more foreign investors by pushing for investment diversification (shifting some of their portfolios into short-term investments such as T-bills due to safety) among the indigenous? Is there a lack of creation and maintenance of basic infrastructure (communication, transport, energy, etc.) for private investors to operate efficiently and profitably? Are there frequent and prolonged power, water, and communication interruptions from utility providers? Are public utilities expensive and do investors have or lack standby generators?

Besides, do political instability resulting from frequent change of governments or coup de tats make government policies uncertain and unpredictable? Do excessive tax rates come at a high cost in reflection of lower PI and growth? Do excessive taxes and customs interruptions in clearing goods to minimize the drive to invest by lowering investors' after-tax returns? Is the cost of complying with the tax administration more expensive? Higher tax rates will reduce new business entry and the growth of existing businesses, with medium-sized businesses being the hardest hit; because small businesses will trade informally, and large businesses are likely to avoid paying taxes, is this a reality in DEEs? Do businesses need to be controlled and licensed if the costs of compliance with regulations are unnecessarily huge, shooting up the cost of starting a business and limiting its growth?

Do existing support institutions and government developmental programs promote PI? Whether the support institutions like the Chamber of Commerce, Associations of Private Industries, Private Enterprise Foundation, and Investment Promotion Boards: the face of the private sector, are able to build the capacity of their members (the private sector)? What are the various private sector institutional associations doing to facilitate the capacity building of their members; or is there a lack of institutional support or poor administrative procedures? Is the time taken to obtain a permit to operate a business too long and cumbersome, or short and easy?

Is there a good system in place for business or property registration, improved land tenure protection, and contract compliance cost reforms, such as encouraging alternative dispute resolution and litigation? In what ways could a lack of strong institutions, specifically for property rights protection and an ineffective judiciary incapable of enforcing contracts, limit investment pursuit and growth? Is there a significant risk of receiving attractive returns on investment and an increasing cost of doing business as a result of crime and corruption, whether by the direct loss of goods, the payment of bribes, the costs of crime prevention, or poor governance? Will more openness and accountability help? The gap in the literature is policy changes are needed to overcome these constraints.

11. Macroeconomic uncertainties /macro instability

Macro instability deters PI by making future rewards more uncertain or by undermining its value; undermining asset values or investment returns making future rewards less certain. According to previous studies, the higher the degree of macro instability, the lower the rate of PI (Ayeni & Nsiah, 2020; Ofosu-Mensah Ababio et al., 2018), and the slower the rate of growth (Glaeser et al., 2004; Ofosu-Mensah Ababio, 2019).

A major reason why investors are hesitant to invest in Africa, despite the continent's immense profit potential, is the continent's rather high degree of instability, which exposes businesses to significant risks expressed in three prime ways: political risk, social risk, and economic risk. Pindyck (1990), Serven and Solimano (1992), and a swarm of other empirical studies have shown that uncertainty affects investment and that it is particularly harmful. Regrettably, investment has been very slow in responding to changes in these variables.

12. Economic risks

Economic risks usually shown by high-interest rates, double-digit inflation, wide exchange rate swings, excessive budget deficits, and a massive external debt restrict the ability to attract both foreign and domestic investments.

13. Inflation rate

Often, a high inflation rate is considered an indicator of macroeconomic uncertainty and a country's inability to manage macroeconomic policy, both of which lead to an unfavorable investment environment. As a result, the rate of domestic inflation is inversely proportional to the rate of DPI. Inflation increases the riskiness of long-term investment ventures, reduces the average maturity of commercial loans, and distorts the knowledge content of relative prices which has a negative impact on PI. Inflation also discourages financial intermediaries from lending long-term, further lowering the investment rate. In general, inflation is a measure of how well the macroeconomic policy is implemented. "In essence, the rate of inflation acts as a measure of the government's overall capacity to control the economy. Because there are no valid arguments for very high inflation rates, a government that creates them is a government that has lost absolute control" (Fischer, 1993) over its economic management. There is obviously no reason to invest in an economy where the government has lost control of the macroeconomic climate.

14. Exchange rate

One of the major reasons for the unstable behavior of PI in DEEs, particularly in Africa, is the over-valuation of the exchange rate. As the exchange rate fluctuates, the domestic value of goods priced in foreign currency similarly fluctuates. The consequence of the over-valuation of the exchange rate is that the demand for foreign currency far outweighs its supply. This creates scarcity so that imports of basic needs such as inputs for investments like plants and machinery, gasoline, and spare parts which are needed to supplement and stimulate investment, cannot be brought into a country. Aryeetey (1994) observed that the rapid depreciation of the local currency has led to general business uncertainty, which has inhibited the private sector investment needed to increase productivity. This, ironically, is at a time when private sector development is seen as the prime mover of the economy. Asante and Addo (1997), indicate that production in the manufacturing sector was constrained by the limited availability of imported inputs. This indicates that most of the firms in DEEs, especially in Africa, rely on imported inputs such as raw materials, equipment, or machinery for their investment projects. A high exchange rate, therefore, creates uncertainty, which reduces the level of PI. This claim lends strong support to the finding of Ayeni and Nsiah (2020) that the high cost of production resulting from exchange rate escalations is the major factor discouraging private investment in Gambia.

15. Government budget deficit

Another issue that has lowered PI over time is excessive government borrowing from the domestic financial system. Any spending deficit must be made up by government borrowing. Interest rates will rise if the government borrows a lot of money. Excessive government borrowing thus "crowds out" private borrowing and spending by forcing up interest rates, in so doing reducing available funds in the credit markets and suffocating PI (Ofosu-Mensah Ababio et al., 2018). Credit markets are frequently regulated in most African countries, and the institutional environment provides borrowing rights for the central government and other government bodies, limiting access to credit for private investors (Collier & Gunning, 1999). Besides, governments just like private debtors may be bad debtors, with a proclivity to default on loans due to financial holdups or poor management. This worsens the financial system's vulnerability, further depressing PI. Ineffective government policies have resulted in fiscal challenges that are consistently high and unpredictable. According to "crowd out theorists", the competition between business and government for mobilized savings, raises interest rates and reduces the amount of funds firms can borrow to invest (Heim, 2007 & 2008; Spencer & Yohe, 1970). Consequently, the degree to which government deficits cause a "crowd out" crisis; i.e. diverts savings that would otherwise be borrowed by private businesses to buy new plant and equipment into government hands hence weakens PI initiatives.

16. External debt

Another cause of macroeconomic uncertainty is the existence of high external debt burdens. A high external debt suggests that a portion of future investment returns must be used to service the current debt stock. A higher level of external debt could imply that external credit for investment funding is over-indebted. It also indicates that current macroeconomic policies are not long-term viable or sustainable and that the increased level of uncertainty about future policies is likely to have a negative effect on investors' expectations. Foreign debt can affect PI in a number of ways. First, the timing and size of foreign payments to a country's creditors could be unpredictable due to future global levels of interest rates, purchasing power of exports, terms of trade, and the ability to reschedule debt, among other factors. Second, the presence of higher debt service payments will reduce considerably funds available for investment. Third, international capital markets in many DEEs, including Africa face liquidity constraints due to substantial arrears on debt service commitments.

Furthermore, high debt can stifle investment in a number of ways. First, high debt means that a larger portion of domestic output is used to service debt obligations. According to Krugman (1988), this phenomenon is known as "debt overhang", and it produces a disincentive impact on domestic investment. Second, high debt obligations damage a country's standing in foreign credit markets, and may even lead to credit rationing. Credit rationing influence can be significant, particularly in SSA countries, where low domestic savings rates force them to rely on foreign funds for investment. Credit rationing, as a result, exacerbates the debt overhang effect, lowering domestic investment. Third, high external debt levels decrease investment by intensifying the degree of uncertainty in the macroeconomic environment. Increased indebtedness makes a nation more vulnerable to exogenous shocks like commodity prices and exchange rate fluctuations, which can further worsen a country's capacity to honor its debt obligations. Several empirical studies maintain that high external debt impact negatively on investment (Greene & Villanueva, 1991; Jenkins, 1998; Ofosu-Mensah Ababio et al., 2018; Oshikoya, 1994).

16.1. Social risk

17. Crime and corruption

There is clear evidence that factors such as the upsurge of crime, violence, corruption, joblessness, poverty; and lack of safety and security reduce the creation of jobs, the rate of PI, and EG at the macro level. There is also strong evidence that these factors decrease output growth, investment, and job creation at the firm level. Everhart and Sumlinsk (2002) show that crime and corruption pose a significant risk to achieving attractive returns on investment, and raise the cost of doing business, whether through bribe payments, direct losses of products, or the cost of preventing crime. Qureshi et al. (2021) add that the effect of control of corruption on inward FDI and economic development depends on the stage of development of the economy being analysed. While they postulate that control of corruption has a negative effect on inward FDI and economic development of developing economies, the reverse is argued for developed economies.

Transparency International (TI) has built an index that aims to measure and compare various countries' perceptions of corruption. Their Corruption Perception Index (CPI) is based on the outcomes of ten separate surveys in which financial journalists and business executives were asked to rate countries based on how corrupt they are. In the surveys, corruption is described as the use of public power or resources for private gain. Three of the surveys came from the Institute for Management Development in Lausanne's World Competitiveness Study (1993–1995). Three more surveys were conducted by the Hong Kong-based Political and Economic Risk Consultancy Ltd (1993, 1995–1996), as well as one each by DRI/ McGraw-Hill, Impulse, Göttingen University in Germany, and Political Risk Services in New York. It observed that merit-based human resource management in government, simplification of administrative processes, and greater transparency and accountability help reduce corruption. Despite the role of Transparency International's Corruption Perception Index (CPI), which has helped to minimize corruption in some parts of

DEEs, many African countries are still plagued by corruption. This discourages investment in several DEEs because it distorts the motivation to invest.

17.1. Political risk

Political risk, according to Servén (2003), includes political instability, political freedom (liberty), and policy uncertainty. Political liberty encourages PI by enhancing human capital formation. Political instability determined by political freedom variability has a negative impact on PI. Lastly, policy uncertainty, measured by government capability variability, has a negative impact on PI.

18. Political freedom (liberty): democracy

The statement that democracy reduces PI incentives normally rests on two main premises. First, democracy is thought to increase the demand for immediate consumption, thereby reducing the pool of capital available for investment (Huntington & Dominguez, 1975). Second, democracy encourages the average citizen to redistribute income to the poor, lowering savings and investment incentives. Investors prefer a democratic mechanism that, at the very least, institutionalizes the redistribution system over political instability, which is marked by irregular government transition and hangs over an autocratic system. Moreover, democracy promotes the elimination of wealth disparities necessary for investment. However, in a democracy, a large middle class, combined with the institutionalization of the redistribution system, is likely to minimize the conditions under which the poor will expropriate the wealth of the wealthy.

19. Political instability

Regime stability is another significant factor that affects PI (Abbas et al., 2022). Consumers increase consumption and reduce savings when a political system is unstable because they believe their savings may become worthless. While customers are compelled to spend, investors' decisions to put their money in the financial markets are placed on hold as a result of an imminent political crisis. Also, political upheavals deprive people of their jobs and oftentimes force them to relocate, making savings impossible. Savings and investment are used to stimulate and maintain EG, but then, both the supply of investment capital from savers and the demand for capital from investors would decline during periods of political unrest. Political instability, therefore, reduces the attractiveness and availability of job prospects, reducing the probable pool of savings and thereafter investment.

Regular government transition can also be very costly to inventors, as it seldom results in a change in property ownership. Investors will reduce their investments in fixed capital stocks, like factories, land, or property, choosing to maintain their investments in liquid and flexible forms, such as gold, or foreign currencies, which have a greater chance of holding their value.

20. Policy uncertainty

Policy uncertainty is concerned with the risks posed by policy changes rather than the political system as a whole. Policy uncertainties can be quantified by the “volatility of the institutional system or the volatility of outcomes” (Servén, 2003). The underlying intuition for policy uncertainty's negative impact on investment is that it provides a reward for waiting. As a result, an increase in uncertainty reduces investment (Dixit, 1989). A powerful government with good policies can achieve impressive results more swiftly than a feeble government with similar good policies, but a powerful government with bad policies can have disastrous effects as compared to a feeble government with similar bad policies. The impact of government policy capacity variability on private investment is a fascinating but understudied topic.

Uncertainty regarding the government's effectiveness may be more harmful than the policy itself because it discourages investors from investing their money or properties. PI operates in a political climate where political liberty, political stability, and policy certainty all play a role (Dupasquier & Osakwe, 2003). Investors will still make money if there is a bad policy with no ambiguity in its implementation. However, if the government's policy implementation is inconsistent, investors will hold off on investing until it is clear that the government is consistent in its policy execution. The absence of transparency in

economic policy is, therefore, a worry because it raises transaction costs, which lowers the incentives for investment, in particular, foreign investment.

21. Investment management: valuation and performance

Investment management is concerned with the proficient management of a variety of financial assets or securities (e.g., debt stock, equity stocks, and other securities) as well as other real assets (e.g., fixed assets, real estates) in order to achieve specific investment targets for the benefit of investors. Stock selection, investment valuation, risk, and return analysis, and investment monitoring are the main functions of investment management (Sangalli, 2013). The process of determining what financial assets (business ventures, options, stocks, or intangible assets such as patents and trademarks) or liabilities (bonds or shares) are worth is known as investment valuation. Investment valuation is the method of determining the value of a company's financial assets (business ventures, stocks, options, and intangible assets like trademarks and patents) and liabilities (bonds or shares issued by the company). Valuation is the pricing of assets that determines the intrinsic value of assets and decides their profitability prospects. It is at the heart of every investment decision, whether to purchase, sell, or hold.

Investment performance refers to the amount of total return (earnings—dividends and interest) and price return (capital appreciation) on an investment collection (portfolio), and it measures how well the portfolio is doing (Stoughton et al., 2011). To help investors achieve their goals, it will be necessary to track the performance of these investments to see how they are interacting in the portfolio over time. Moreover, if investments are not yielding any returns, investors must figure out why, and decide what to do next. Besides, since investment markets are constantly changing, one should be on the lookout for ways to boost the performance of one's portfolio, such as diversifying into different sectors of the economy or allocating a portion of the portfolio to foreign investments.

Low PI participation in DEEs, especially SSA, has been attributed to a variety of problems. However, there is substantial evidence of a clear causal association between PI (FDI and DPI) on one hand, and growth and other related factors on the other. The ensuing section delves into the main theories and empirical evidence that have emerged from the extant literature.

21.1. C. Theoretical and empirical literature review

21.1.1. C1. Theories of investment

One of the founders of investment theories was John Maynard Keynes (1936). The observation that, while savings and investment must be similar, ex-post savings and investment decisions are generally made by different decision-makers, and there is no explanation why ex-ante savings should match ex-ante investment is a central feature of the Keynesian study. He regarded investment as a function of the prospective marginal utility of capital in relation to a given level of interest rate representing the opportunity cost of the invested capital. He claimed that an investment is worthwhile if the present value of the future income stream produced by a given amount of capital investment is equal to or greater than the initial capital cost. He also stated that PI has inherent volatility as a result of the underlying uncertainty associated with expected returns on investment. Following Keynes' initial formulation, investment theory has undergone rapid advancement.

The accelerator theory emerged as the next step in the evolution of investment theory. Chenery (1952) and Koyck (1954) are the authors of the accelerator investment models. The models usually take the empirical form of a linear relationship between current net investment and current and previous performance changes. According to the naïve accelerator theory of investment, investment reacts to changing demand conditions. It hypothesizes that investment and production have a linear relationship.

The model's fundamental assumption is that the ideal capital stock at any given time is a constant multiple of production. That is, $K^* = Y$, where K^* is the desired capital stock, Y is output, and is a constant

multiple of output. Expectations, profitability, and capital cost have little impact on investment decisions in the naive accelerator model. The theory is founded on a stable equilibrium capital-output ratio.

According to the theory, as production increases exogenously, companies automatically increase their capital stock, that is, they invest enough to keep the capital-output ratio constant. As a result, given an incremental capital-output ratio, the investment level needed to achieve a given target level of output growth can be calculated. The flaws in this theory are its simplistic assumptions that there is a fixed ratio of desired capital stock to production, as well as the unrealistic assumption that the capital stock changes to its optimum level instantly, ignoring the high cost of adjustment and the time lag required to acquire capital goods. The accelerator theory of investment has long been favored by Keynesians, who ignore the function of factor cost.

The flexible accelerator theory emerged in response to the shortcomings of the naive accelerator theory. The original naive accelerator theory was changed to the flexible accelerator principle of investment. The flexible accelerator model is a more general version of the accelerator model. The basic premise of this model is that the greater the difference between current and desired capital stock, the higher a company's rate of investment. Unlike the naive accelerator theory, the flexible accelerator theory assumes that due to uncertainty and different change costs, companies do not immediately adapt their current capital stock to the desired capital stock. Rather, after a "shock" to production occurs, firms gradually change their capital levels with the aim of re-establishing the optimum capital-output ratio.

Therefore, according to the theory, investment is determined by the difference between current and desired capital stock. As firms attempt to close the gap in each cycle, the larger the gap, the higher the firm's rate of investment. As a result, the net investment equation can be written as $I = (K^* - K_{-1})$, where I denotes net investment, K^* denotes the ideal capital stock, K_{-1} denotes the previous period's capital stock, and λ is the partial adjustment coefficient, which indicates how quickly the distance between K^* and K_{-1} can be closed. A high coefficient of adjustment indicates that the distance between the desired capital stock and the actual stock is closing faster. Output, internal funds, cost of external funding, and other related variables are included as determinants of the desired capital stock in the flexible accelerator model. By incorporating a definition of ideal capital stock and a theory of replacement investment, the model can be turned into an investment behavior theory.

The neo-classical approach to investment, developed by Jorgenson, is another variant of accelerator theory (1971). He stated in his own submission that the K^* (desired capital stock) is proportional to output and the user cost of capital (which is determined by the tax structure, price of capital goods, the rate of depreciation, and the real rate of interest). Thus, according to Jorgenson (1963), D.W. Jorgenson (1967), (1971), the neoclassical theory of investment (version of the flexible accelerator theory) postulates that production levels and consumer cost of capital are the main determinants of investment. The desired or optimum capital stock is proportional to production and the consumer cost of capital in this method. The firm is believed to achieve an equilibrium level of capital stock in the neoclassical theory when the value of the marginal value product of capital equals its user expense. The neoclassical investment model presupposes a perfect capital market and minimal government interference. The neoclassical model, on the other hand, has the flaw of not rationalizing the rate of investment or movement toward the optimal capital stock.

McKinnon (1973) and Shaw (1973) developed a neoliberal investment strategy that emphasizes the importance of financial deepening and high interest rates as EG drivers. They believe that if the economy were free of oppressive constraints, savings, expenditure, and EG would increase. In comparison to neoclassical theory, they believe that investment is positively linked to the real rate of interest. This is possible because a rise in interest rates causes an increase in the amount of financial savings through financial intermediaries, resulting in an increase in investible funds, a phenomenon known as the "conduit effect" by McKinnon (1973). Since it is a version of the same style, the same critiques that refer to neo-classical apply to this model as well. According to

the McKinnon-Shaw hypothesis, restricted access to credit in developing countries forces developers to build up sufficient real balances before embarking on investment projects. Recent studies go beyond the McKinnon-Shaw tradition, stressing the unique services that financial intermediaries offer to investors, and linking investment to financial growth in general.

Tobin (1969) proposed the Tobin Q theory of investment, which states that the ratio of the market value of current capital stock to its replacement cost (the Q ratio) is the primary force driving investment. That is, if the increased market value of an additional unit exceeds the replacement cost, businesses will want to invest. Tobin claims that the differences between Q and unity are due to delivery lags and increasing marginal cost of investment. The most common criticism of Q theory is that it is used haphazardly rather than according to optimization theory.

Other ideas, in addition to these, focus on income or profits gained by business units and sectors rather than production. This profit-investment relationship study has many variations, one of which is that investment is influenced by existing earnings, the sum of retained profits, or other profit-related variables such as output, price, and sales (Chirinko & Schaller, 1995). According to the benefit principle, the higher the gross income, the higher the amount of internally produced assets, and therefore the higher the rate of investment (Zebib & Muoghalu, 1998).

Due to irreversible investment, modern literature has introduced an element of uncertainty into investment theory (Pindyck, 1990). Disinvestment is more expensive than positive investment, according to the logic, because capital goods are mostly firm-specific and have a low resale value. He claims that the net present value rule of investment, which states that the value of a unit of capital must be at least as large as its cost, must be modified when an irreversible investment is made because the firm cannot withdraw if market conditions deteriorate. This value of the option that was not exercised is an opportunity cost that must be factored into the total cost. As a result, “the unit’s value must be greater than the cost of acquisition and installation by a sum equivalent to the cost of holding the investment option active” (Pindyck, 1990). According to the principle of investment irreversibility, the expense of investing in machinery and equipment is seldom recouped by future resale (Acosta & Loza, 2005). The uncertainty stems from three major sources: an unstable macroeconomic environment, an unstable policy environment, and external shocks.

There is also the dis-equilibrium approach, which considers investment as a function of both profitability and output demand. Investment decisions, in this case, have two stages: the first is deciding to increase the amount of productive ability, and the second is deciding on the capital intensity of the additional capacity. The first decision is based on the economy’s projected capacity utilization, which is a leading indicator of market conditions, while the second is based on relative prices such as capital and labor costs. The investment decision is made in a context where companies might be experiencing actual and anticipated sales constraints. As a result, investment is determined by profitability as well as current sales constraints, which determine capacity utilization (Serven & Solimano, 1992).

The models are criticized because they are unclear about the position of cash flow. Aside from that, this investigation uncovered a few key FDI theories, including product cycle theory, eclectic model, modernization, and dependency theories. Private investment variables can be derived from a variety of schools of thought, including Keynesian, neoclassical, neoliberal, and complexity, as shown by brief theoretical expositions, though each has its own set of disadvantages.

21.1.2. C2 Empirical literature

The empirical literature on PI behavior is vast. Brief overviews of empirical studies on PI and its components in DEEs’ research are presented below.

22. Private investment

Several authors (Acosta & Loza, 2005; Ang, 2006; Ayeni & Nsiah, 2020; Frimpong & Marbuah, 2010; Jongwanich & Kohpaiboon, 2008; Ndikumana, 2000; Ofosu-Mensah Ababio et al., 2018; and Serrasqueiro, 2017; Fleta-Asín & Muñoz, 2021; Sadiq et al., 2021; Niu et al., 2022) to mention a few, have looked into the factors that influence private investment in DEEs.

In the case of Ghana, Islam and Wetzel (1991) use the OLS technique to discover a negative public-private relationship, a positive relationship between corporate tax revenue and flow of credit to the private sector, and a negative but negligible real interest rate impact on PI. Although their findings were verified by Akpalu (2002), Asante (2000) contrasted their findings in Ghana, where public investment was developed to crowd-in private investment. Furthermore, empirical studies by Ang (2009), Greene and Villanueva (1991), and Ofosu-Mensah Ababio et al. (2018) have established the negative relationship between interest rates and investment, while studies by (Serven & Solimano, 1992 & 1993) have shown that credit policy affects investment in a distorted manner in repressed financial markets.

Between 1970 and 1987, Dailami and Walton (1992) studied the behavior of private investment in Zimbabwe. The findings revealed that PI is positively related to the lagged dependent variable, GNP rise, real interest rate, and real effective exchange rate, but negatively related to government bond yield, the relative price of capital goods, and the lagged dependent variable. PI is positively related to GNP rise, real effective exchange rate, real interest rate, and the lagged dependent variable, but negatively related to government bond yield, the relative price of capital goods, and the real wage, according to the findings. Similarly, Ronge and Kimuyu (1997) used OLS and data from 1964 to 1996 to investigate the determinants of private investment in Kenya. The findings show that credit availability and foreign exchange have major positive effects on PI, while interest rate is less critical in deciding the degree of PI in Kenya. The stock of debt and exchange rate depreciation, on the other hand, had a negative impact on private investment, while public investment crowded in PI, which was in support of Ayeni and Nsiah (2020) that stock of debt and exchange rate depreciation have a negative impact on private investment, also crowds in. But, in contrast to the findings of Were (2001) for Kenya, where crowding-out was documented.

Asante (2000) used time series OLS analysis and cross-sectional data to investigate the determinants of private investment in Ghana between 1970 and 1992. The findings show that lagged investment, public investment, private sector credit, real interest rate, and real exchange rate are the variables that have a significant positive relationship with private investment. Trade, political uncertainty, macroeconomic instability, and real GDP growth rate, on the other hand, all had a negative correlation with PI. Furthermore, the lagged PI/GDP ratio was found to be positive and important, implying that a favorable investment environment is a strong predictor of current investment decisions. The negative significant sign of GDP growth rate was unexpected, indicating that the accelerator theory of investment for Ghana was invalidated.

Ribeiro and Joanilio (2001) used the multivariate co-integration technique of Johansen (1988) and the Engle-Granger Two-Step method to model private-sector investment in Brazil from 1956 to 1996. The production, public spending, and financial variables all have positive effects, while the exchange rate has a negative effect. They also ran poor exogeneity and super exogeneity studies, which reinforced the value of credit and public expenditure as economic policy tools. From 1970 to 1999, Mbangwa (2002) investigated the effect of external debt on private investment in Cameroon. Using time-series data over the study period, it discovers a substantial positive real GDP-private investment relationship, the “debt overhang” hypothesis is verified, and the debt service ratio has a “crowding-out” effect. However, public investment crowded-in PI, while the investment environment, as measured by the lagged value of PI, stimulates current levels of PI; there is a reported positive and important relationship between credit expansion and PI; deteriorating terms of trade, and a depreciating real exchange rate had negative effects on PI in

Cameroon, and deteriorating terms of trade and a depreciating real exchange rate had negative effects on PI in Cameroon.

Akpalu (2002) used annual time series data from 1970 to 1994 to model the determinants of Ghanaian private investment. He used the Engle-Granger Two-Step method and the Johansen multivariate technique. According to the report, in the short run, PI responds more to real per capita income rise, credit availability, and public spending. Public investment was found to crowd out PI, and there was also a significant negative relationship between the cost of capital and PI, as well as a significant positive relationship between real GDP and PI in long-run models, but not in short-run models. The Consumer Price Index, on the other hand, was not important in either case. This finding lends credence to the accelerator theory of investment in Ghana.

Vergara (2004) used an empirical model to examine the relationship between corporate tax reform and Chile's PI results from 1975 to 2003. Higher corporate tax rates have a negative impact on private investment, according to the findings. Also identified was the crowding-in effect of public investment, while the investment climate, as measured by the lagged PI, was found to boost private sector investment in Chile. This was consistent with Mbanga's findings for Cameroon.

Frimpong and Marbuah (2010), pursued an empirical evaluation of factors that have either stimulated or stifled private sector investment in Ghana. Using co-integration and error correction techniques within an ARDL framework, their findings suggest that public investment, inflation, real interest rate, openness, real exchange rate, and a regime of constitutional rule determine PI in the short run, while real production, inflation, external debt, real interest rate, openness, and real exchange rate significantly influenced PI response in the long run.

Fowowe (2011) carried out an empirical study on the effect of financial sector reforms on private investment in SSA countries. By using a larger and more detailed data collection, the analysis builds on previous research. Besides, an index was created to chart the incremental progress made in implementing the reforms' phases. The findings show that financial sector reforms have had a positive impact on PI in the countries they studied.

On the basis of seven emerging economies, Su et al. (2021) argued that remittances and institutional quality exert a significant and positive relationship with private investment nullifying the effect of any Dutch disease, if any.

23. Domestic private investment and economic growth

In most economies, the relationship between domestic investment and EG has become a major policy issue and topic of debate among academics. The relationship between domestic investment and economic growth has been studied in a few studies (Adams, 2009; Alfa & Garba, 2012; Anyanwu, 2006; Choe, 2003; Villa, 2008). Mlambo and Oshikoya (2001) investigating the determinants of domestic investment in Africa find that macroeconomic factors such as the fiscal deficit, domestic credit to the private sector, the real exchange rate, and macroeconomic instability explain a significant portion of the continent's poor investment output. Low domestic investment rates, according to Mlambo and Oshikoya (2001), are a problem not only because investment is important for development, but also because low investment rates increase vulnerability. However, Deverajan et al. (2001) have refuted the notion that Africa's domestic investment expenditure is insufficient. According to them, investment efficiency is too poor, which is a sign of low-capacity utilization and a skills shortage. The authors suggested that unless these factors behind low domestic investment efficiency are recognized, curtailed, or removed, calls for increased investment to boost Africa's growth rates might be misguided.

Moreover, unlike Qin et al. (2006), who found a uni-causal relationship between domestic investment and EG even though the causality was from EG to domestic investment, Domestic investment, and institutional infrastructure, according to Adams (2009) and Anyanwu (2006), are positively and

significantly associated with EG. Shabbir et al. (2021) found that domestic private investment has a positive and significant relationship with economic growth in Pakistan in both the long-run and short-run unlike foreign private investment which only had a short-run positive and significant effect on EG. Furthermore, because of the crowding-out effect of domestic investment, any positive effect of FDI on EG may be attributed to an increase in total factor efficiency rather than an increase in domestic resources. However, their research shows that, while FDI inflows to SSA countries increased in the 1990s, the increase did not result in a proportionately positive effect on EG.

Akanbi (2010) empirically analyzed the trend of domestic investment in Nigeria from 1970 to 2006 using a neoclassical supply-side model and Johansen estimation techniques. The findings show that real performance, the consumer cost of capital, financial growth, and governance indicators are all important determinants of Nigerian domestic investment.

It's worth noting that, while DPI has received some coverage in the literature, it has not been thoroughly investigated. The few studies on the relationship between domestic investment and EG have failed to reach a consensus.

24. Foreign direct investment and economic growth

Many empirical studies have looked at the relationship between FDI and EG in DEEs because of the contrasting theoretical views. FDI inflows have a positive impact on EG, according to several studies (Alfaro et al., 2004; Anwar & Nguyen, 2010; Carkovic & Levine, 2002; Chang, 2010; Lean & Tan, 2011; Mun et al., 2008; Sadiq et al., 2021). In contrast to studies that find a positive correlation between FDI and development, some studies find a non-significant or negative effect of FDI inflows on EG (Adams, 2009; M. R. Agosin & Mayer, 2000; Ayanwale, 2007; Sylwester, 2005). Chowdhary and Kushwaha (2013), and Lyroudi et al. (2004), find that FDI inflows had no significant relationship with EG thus, a non-responsive or neutral effect.

Balasubramanyam et al. (1996) find that the growth-enhancing effects of FDI are greater in countries with a highly trained population and a policy of export promotion rather than import substitution in a cross-country analysis of 46 countries from 1970 to 1985. Between 1970 and 1997, Zhang (2001) looked at 11 Asian and Latin American countries and found that FDI was more likely to support development in Asia than in Latin America. Furthermore, when the host country adopts liberalized trade policies, improves education, and maintains macroeconomic stability, FDI appears to support EG, according to the report.

Similarly, Chowdhury and Mavrotas (2006) used time-series data from 1969 to 2000 for three developing countries, namely Chile, Malaysia, and Thailand, which were then the main recipients of FDI and had a variety of macroeconomic episodes, policy regimes, and growth trends. Their empirical results clearly show that GDP induces FDI in Chile but not the other way around, while there was good evidence of bi-directional causality between the two variables in Malaysia and Thailand.

Frimpong and Abayie (2006) investigated the causal relationship between FDI and GDP growth in Ghana during the pre- and post-SAP eras, as well as the direction of causality between the variables. The study finds no causality between FDI and growth during the pre-SAP era using annual time series data spanning the years 1970 to 2005. FDI, on the other hand, contributed to GDP growth in the post-SAP era. Wang and Wong (2009) used data from 69 countries from 1970 to 1989 to measure the robustness of the relationship between FDI and growth under two economic conditions: an adequate level of human capital and well-developed financial markets. They discovered that FDI only encourages capital growth after a certain degree of financial progress has been reached. FDI also encourages productivity growth only when the host country's human capital exceeds a certain degree.

In spite of the growth-enhancing abilities of FDI, Essandoh et al. (2020) cautions that attracting more FDI and trade could be a means of shifting CO₂ emissions from developed countries to developing countries through the transfer of high emission-intensive production units. Impliedly, developing economies may face reverse growth conditions in the long term due to sustainability challenges imposed by increased CO₂ emissions from attracting increased levels of FDI. Muhammad et al. (2021) analysed the impact of FDI, natural resources, renewable energy consumption and economic growth on environmental degradation for some economic blocs and concluded that while FDI accentuates environmental degradation in BRICS and developing economies, FDI attenuates environmental degradation in developed countries. Specific to North Africa, Mahmood et al. (2020) opined that FDI has no effect on CO₂ emissions casting doubt on the potential sustainable damaging role of FDI on emerging economies. Additionally, the early mixed results on the relationship between FDI and CO₂ emissions may be country or region specific suggesting that certain regulatory or institutional factors may condition this relationship.

25. Domestic private investment, foreign direct investment, and economic growth

Likewise, the relationship between FDI inflows and DI is debatable. FDI inflows crowd-in DI in some studies (Chang, 2010; Lean & Tan, 2011; and Xu & Wang, 2007), while they crowd out DI in others (Adams, 2009; M. Agosin & Machado, 2005). Chowdhary and Kushwaha (2013), on the other hand, find no connection between FDI inflows and DI.

Using a multivariate VAR scheme and co-integration, Tang et al. (2008) investigated the relationship between FDI inflows, DI, and EG in China from 1988 to 2000. They discovered that FDI inflows and DI have a complementary relationship, that there is bidirectional causality between GDP and DI, and that there is a unidirectional causality from FDI inflows to DI and from FDI inflows to GDP, and that DI had a greater effect on growth than FDI inflows.

Elboiashi et al. (2009) used a co-integration test and a causality test to look at the relationship between FDI inflows, DI, and EG in Egypt, Morocco, and Tunisia from 1970 to 2006. They discovered that FDI inflows had a short-run negative impact on DI and a long-run positive impact on EG. Furthermore, they discover that FDI inflows and EG have a unidirectional causality in Egypt and Morocco, and a bidirectional causality in Tunisia, and that FDI inflows crowd in DI in the short term, while FDI inflows crowd out DI in the short term.

Chang (2010) used a threshold error-correction method to investigate the relationship between FDI inflows, domestic resources, and EG in Taiwan from 1981 to 2008. He discovered that there was a unidirectional causality from EG to DI, and from DI to FDI inflows, that FDI inflows had a positive impact on EG, and that FDI inflows crowded out domestic investment. In contrast, Chowdhary and Kushwaha (2013) used Granger causality to investigate the relationship between FDI inflows, DI, and EG in India from 1992 to 2012. They concluded that there was bidirectional causality between DI and EG, but there was no causality between FDI inflows and EG, and that FDI inflows had no effect on DI. The literature reviewed provides more in-depth analyses of previous research.

25.0.3. C3. Theoretical review of methodologies applied

26. Time series data and methodology used

Many different methods for examining a causal association between two or more time-series variables were discovered during the investigation. They include Engle and Granger's two-step procedure; Johansen's (1988), Johansen and Juselius (1990) full information maximum likelihood approach; Toda-Yamamoto's (1995) augmented VAR approach; Davison and Hinkley (1997), and Hacker and Hatemi-J (2006) leveraged bootstrap approach; Granger's (1986) causality approach; Chiou-Wei et al. (2008) Non-linear causality test; Pesaran et al. (2001), and Shin and Pesaran (1999) Autoregressive Distributed Lag (ARDL) Bounds testing approach. However, according to Aktas and Veysel (2008), Johansen (1988) and Johansen and Juselius (1990) were the most

commonly used methods in earlier and recent studies studied, followed by the Autoregressive Distributed lag approach.

Engle and Granger (1987) and maximum likelihood-based approaches proposed by Johansen and Juselius (1990) and Johansen (1991) co-integration techniques were said to have some econometric advantages over the Auto-Regressive Distributed Lag (ARDL) bounds testing method developed by Pesaran et al. (2001): To begin with, the bounds test does not necessitate pre-testing of the series to determine their order of integration since it can be performed if the series are strictly I(1), purely I(0), or fractionally integrated. Second, Engle and Granger (1987) methods avoid endogeneity issues and the failure to evaluate hypotheses on estimated coefficients in the long run. Modeling the ARDL with the necessary lags, according to Pesaran and Shin (1999), will account for both serial correlation and endogeneity problems. Second, the model's long- and short-run parameters are both calculated at the same time. Finally, as compared to the Johansen and Juselius (1990) cointegration technique, the ARDL has superior small sample properties.

27. Panel data and methodology used

Similarly, according to the study, recent cross-country researchers prefer panel data, which collects both time-series and cross-sectional data. Panel data has been suggested as a superior econometric technique for use in cross-country regressions because it allows for the incorporation of country-specific variables and takes advantage of the data's time-series dimension, allowing for more degrees of freedom. The fixed effects estimator, which enables the modeling of unobserved country-specific effects as well as fixed parameters to be measured, was used in the majority of the papers examined. Current studies mainly used the dynamic generalized methods of moments (system GMM) estimator proposed by Blundell and Bond (1998) to control for possible endogeneity. In comparison to the more standard difference GMM, system GMM necessitates additional moment conditions (Blundell & Bond, 1998). The System GMM estimator employs a more asymptotically efficient weighting matrix than the one-step estimator, but it produces coefficient standard errors that "tend to be strongly downward biased when the instrument count is high" (Roodman, 2009a). To address methodological issues, several changes to the one-step system GMM specification were made in the two-step system GMM (Roodman, 2009b). Thus, in order to prevent contemporaneous correlation, time dummies are included in the error terminology, eliminating time-related shocks.

27.1. D. Methodology for the review

The following is the highlight of the methodology employed, which primarily relied on documentary sources.

27.1.1. Data type/source

The analysis is based on a survey of peer-reviewed publications related to PI, FDI, and DPI studies in DEEs from finance journals and other journals in a variety of disciplines. The articles (data) were sourced using three methods: first, the majority were sourced from high-quality finance journals; second, from globally recognized journals focusing on global investment issues; and from the developed frontier, and emerging economies; and third, all the articles were carefully selected and searched year after year. Finally, 140 articles on PSI, FDI, and DPI in DEEs were chosen from over twenty journals based on a comprehensive search. Furthermore, the authors selected and focused on forty (40) articles from 2005 to 2014 for a comprehensive literature matrix, interpretation, and discussion of the 140 articles evaluated.

27.1.2. Journals used

The data used (articles) were assembled from more than twenty journals, including European Journal of Social Science, Annals of Economics and Finance, Applied Economics, Journal of Applied Finance, Development Policy Review, Asia-Pacific Journal of Financial Studies, Contemporary Economic Policy, International Journal of Economic and Finance, International Review of Financial Analysis, Journal of Applied Finance, and Journal of Applied Finance. Other journals included the Review of International Economics, Review of Financial Studies, Developing

Economies, Review of Development Economics, Studies in Economics and Finance, and a few others. The journals are either among the top-ranked finance journals or are similarly well-known finance, investment, and/or development-related finance journals on a global scale.

27.1.3. Database

Academic research complete, EBSCOHOST Business Source, Emerald, Google Scholar, Palgrave Macmillan, Sage, Science Direct, Taylor and Francis, and Wiley, among others, were used to find relevant articles. The majority of publications came from Science Direct, with Google Scholar, Taylor, and Francis coming in second and third, respectively, and the J-STOR database coming in last.

27.1.4. Time frame

The analysis examined literature from before the 1980s, but it focused on forty (40) recent articles published between 2005 and 2014. The time period was chosen to ensure that both classic and contemporary problems, thoughts, understanding, and contributions to PSI, FDI, and DPI in DEEs were investigated. Furthermore, since 2005, global UN studies on foreign investment have shown that developed and emerging economies have earned the largest share of global FDI. Also, the time frame chosen, allowed for the examination of different economic and political regimes in DEEs, which typically last four (4) to seven (7) years, especially in terms of macroeconomic, social, and political uncertainties associated with DEEs.

27.1.5. Relevance

The articles were reviewed to ensure that only those that were specifically related to private sector investment in DEEs were chosen for the analysis. Furthermore, full-text posts were scrutinized to exclude those that had little to do with PI in DEEs. Each of the 140 articles chosen was thoroughly screened to ensure it contained all of the necessary information for the study. Furthermore, the suitability of the forty (40) articles used for a thorough study was screened.

27.1.6. Language

English; for this study, only articles written in English were downloaded and selected. This is because the author's official language is English.

27.1.7. Geographical restrictions

The quest, as well as the exploration, took place at the national, regional/continental, and global/cross-country levels, with the majority of nations, regions, and continents in DEEs being covered. Consequently, studies from SSA, the Middle East and North Africa, Asia and the Pacific, Latin America and the Caribbean, and Europe and the Mediterranean were examined. The majority of the studies were performed in Asia and the Pacific, as well as in Africa.

Search Descriptors: The subjects, abstracts, or citations with four keywords- private sector investment/ private investment, foreign direct investment, domestic investment, and full text with two keywords- developed economies, frontier economies, and emerging economies, were extensively searched to determine whether or not to include an article in the exploration. Only articles especially related to the subject were included in the analysis after each article was found via the search. One hundred and forty (140) research articles on PI, FDI, and DI in DEs were found, chosen, and used for the review using these search guides.

28. Presentation of findings

28.1. E1: Issues and evidence

Table 1 shows that the majority of the articles investigating the impact of FDI on DPI find crowds-in (6 articles), crowds-out (4 articles), and neutral or no significant effect (1 article). Also, most of the time series articles find that long-run co-integration exists with all the variables used, while one article finds no long-run co-integration exists with the variables used.

Table 1. ANALYTICAL MATRIX OF PRIVATE SECTOR INVESTMENT (PSI / FDI/DPI) STUDIES FROM 2005 TO 2021

1	Acosta and Loza (2005) Journal of Applied Economics	Short and Long-run Determinants of Private Investment in Argentina	Time series data WDI 1970–2000 (31 years)	OLS, ECM	Latin America and the Caribbean- Argentina	Private and Public investment crowd out effect S-R; exchange rate, trade liberalization, and aggregate demand shocks determine private investment	Johansen Co-integration or ARDL not applied
2	Adams (2009) Journal of Policy Modeling	FDI, DI and Economic Growth (EG) in Sub-Saharan Africa	Panel data WDI (2006) World Economic Outlook (2000) Global Development Network Growth database, International Country risk guide 1990–2003 (14 years)	OLS, FE Estimation	Sub-Saharan Africa- 42 countries	DI and EG are positive and significant FDI and DI are positive and significant only in OLS	FDI and DI productivity Ignored GMM not applied
3	M. Agosin and Machado (2005) Oxford Development Studies	FDI in Developing countries; does it crowd in DI	Panel data UNCTAD (2002) WDI Database 1971–2000 (30 years)	Generalize methods of moments (GMM)	Developing Countries; Africa, Asia, & Latin America	FDI and DI are neutral more in Africa and Asia; FDI and DI crowds out in Latin America	No control variables employed

(Continued)

Table 1. (Continued)

4	Alfa and Garba (2012) International Journal of Research in Social Sciences	The Relationship between Domestic Investment and Economic Growth in Nigeria	Time series data Central Bank of Nigeria (CBN) Statistical Bulletin 2010 1981–2010 (30 years)	Johansen's (1988) co-integration technique	Sub-Saharan Africa- Nigeria	LR: DI, Export and Economic growth positive and sign'tly related SR: sign'tly positive bidirectional causality between DI and Economic growth, Sign'tly negative bidirectional causality between DI and export but no causality between export and economic growth	Quality and reliability of data Autoregressive Distributed Lag (ARDL) bounds test approach required
5	Ali et al. (2019) Investment Analysts Journal	FDI flows and domestic investment in China: A multivariate time series analysis	Time series data World Bank (2017) 1982–2016 (35 years)	ARDL bound testing Modified OLS VECM based Granger causality test	China	Inward FDI substitutes domestic, while outward investment FDI complements it. FDI flows contribute to sustainable economic growth	One country Effect on economic growth not tested Adoption of protective policies Encourage competition via a national open-door policy
6	Amadou (2011) International Journal of Economic and Finance	The effect of foreign capital on domestic investment in Togo	Annual time-series data WB database (Africa development indicators 2008/9) 1970–2008 (39 years)	Eagle and Granger co-integration test- ADF, Co-integration, ECM	Sub-Saharan Africa- Togo	Foreign capital and DI are positive and sign't Portfolio investment affects DI negatively but insignificant	FDI, DI, and portfolio investment separately test required

(Continued)

Table 1. (Continued)

7	Ang (2009) Applied Economics	Do public investment and FDI crowds-in or crowds-out PDI in Malaysia	Time series data BNM monthly statistical data bulletin (various issues) 1960–2003 (44 years)	Johansen co-integration approach; ADF, VAR, VECM	Asia and Pacific-Malaysia	Public investment (PI) is complementary rather than competing with PDI Impact of FDI on PDI greater than PI on PDI	Quality and reliability of data The remote sample period restricts current relevance
8	Ang (2009a) Applied Economics	Financial development (FD) and FDI-growth nexus: the Malaysian experience	Time series data WDI, IFS, Bank of Negara Malaysia quarterly economic Bulletin (various issues) 1965–2004 (40 years)	ADF, PP Test Johansen- VAR, VECM	Asia and Pacific-Malaysia	LR: FDI and FD are positively related to output; FDI and output enhanced through FD Output growth to FDI growth causality exist FDI to output no causality	Limited to Malaysia Bias to generalize
9	Ang (2009) World Development	Private Investment and Financial Sector Policies in India and Malaysia	Time series data National Accounts Statistics, Ministry of Finance, the Central Bank of Malaysia India: 1950–2005 (56 years) Malaysia: 1959–2005 (47 years)	ECM, OLS ARDL Bound test	Asia and Pacific-India and Malaysia	LR relations exist for PI, FSP and variables used; PI and FSP in India and Malaysia are negative and significant, interest rate restraints stimulate private investment in both countries	Quality and reliability of local data Limited to Asia

(Continued)

Table 1. (Continued)

10	Angmortey and tandoh-Offn (2014) International Journal of Economics and Finance	Does foreign capital crowd-out domestic savings in developing countries: an empirical investigation of Ghana	Quarterly Time series data IFS, BOG, Annual Budget Reports Ghanaian Economy: ISSER, CPA 1983–2012 (30 years)	OLS, Co-integration technique, ECM	Sub- Saharan Africa- Ghana	LR: Foreign capital and real domestic savings are positive and sign't SR: Foreign capital and real domestic savings insignificant	FDI and domestic credit required Applied LR methodology: Johansen or ARDL unclear
11	Anwar and Nguyen (2014) Journal of Business Research	Is FDI productive? A case study of the regions of Vietnam	Firm-level Panel data 2000–2005 (6 years)	TFP Model developed OLS, 2SLS	Asia and Pacific- Vietnam- 8 regions	FDI spillover on TFP varies across regions Five regions insign'tly benefited from backward, but sign'tly benefited from horizontal and forward linkages	Single economy GMM not employed Data source not provided Remote sample period

(Continued)

Table 1. (Continued)

12	Anyanwu (2012) Annals of Economics and Finance	Why Does Foreign Direct Investment Go Where It Goes? New Evidence from African Countries	Panel data, 1996–2008 (13 years)	OLS, feasible generalized least squares (FGLS) Two-step (IV) efficient generalized method of moments (GMM) estimation	Africa- 53 countries	Positive relationship; market size, openness to trade, the prevalence of the rule of law, agglomeration but financial development has a negative effect on FDI inflows; Higher FDI goes where foreign aid also goes; natural resource endowment and attracts huge FDI; East and Southern African sub-regions appear positively disposed to obtain higher levels of inward FDI	Non-availability of data source Limited to Africa
13	Anyanwu (2011) African Development Bank Group	Determinants of Foreign Direct Investment Inflows to Africa, 1980–2007	Panel data WDI, WB-ADI 1980–2007 (28 years)	OLS Generalized Linear Model (GLM)	Africa	Determinants of FDI: Market size, trade openness, government consumption, international remittance, agglomeration, natural resource endowment, and exploitation positive relationship; financial development negative relationship	Numerous variables directly applied Unavailability of specific countries Studied Limited to Africa

(Continued)

Table 1. (Continued)

14	Anyanwu (2006) African Development Review	Promoting Investment in Africa		Descriptive with statistical analysis	Africa	Needs investment in service delivery to enhance living standards, infrastructure to support economic activity, human capital to reduce poverty, and private sector development to secure sustainable growth, and reconstruction and rehabilitation to rebuild post-conflict countries	No clear methodology Different methods required Limited to Africa
15	Ayeni and Nsiah (2020) Cogent Economics and Finance	Determinants of private sector investment in a less developed country: A case of Gambia	Time series data WDI (2019) 1980–2019 (40 years)	ARDL Co-integration	The Gambia	The exchange rate and low credit are major hindrances to PSI in Gambia	Gambia's national investment policy One country: Inability to generalize findings to all less developed countries
16	Bayar (2014) International Journal of Economics and Finance	Effects of FDI Inflows and DI on Economic Growth (EG): Evidence from Turkey	Annual time-series data UNCTAD 2013b; WDI World Bank 2013a, 2013b 1980–2012 (33 years)	ARDL: co-integration, VEC model, bound test approach	Europe/ The Mediterranean: Turkey	Exist L-R relationship among EG, FDI, and Domestic Investment (DI). L-R and S-R: FDI negative effect on EG; DI positive impact on EG.	Limited geographical Scope Bias to generalize

(Continued)

Table 1. (Continued)

17	Saglam and Yalta (2011) Applied Econometrics and Social Studies	Dynamic linkages among FDI, Public and Private Domestic Investment: evidence from Turkey	Time series data Central Bank of Turkey State planning organization of Turkey 1970–2009 (40 years)	VAR model, Innovation accounting, Variance decomposition, ADF, Johansen co-integration	Europe/Mediterranean—Turkey	LR: no relationship between FDI, Public investment, and PDI, Public investment and FDI are either not complementary or substitute for PDI Public investment impact on PDI is greater than FDI impact on PDI	Unavailability of Short-run dynamics Bias to generalize the outcome
18	Buchanan et al. (2012) International Review of Financial Analysis	FDI Institutional quality: some empirical evidence	Panel data WDI 2009 Database, Worldwide Governance Indicators (WGI) 1996–2006 (11 years)	OLS Instrument Variable (IV), FE, and RE models	Developed and Developing world—164 countries	FDI and Institutional quality (IQ) are positive and sign't IQ and volatility of FDI negative and sign't Governance and FDI are positive and sign't Good Institutional quality matters for FDI	FDI volatility and other variables not empirically tested GMM was not applied
19	Choe et al. (2005) The Review of Financial Studies	Do domestic investors have an edge? The trading experience of foreign investors in Korea	Daily Trading in Hours Korea Stock Exchange Dec. 1996–Nov. 1998 (3 years)	Developed a model	Asia-Pacific- Korea	Prices move more against foreign investors Foreigner(s) at information disadvantage	Inclusion of unidentified daily patronized trading Limited to one country Bias to generalize
20	Dutta and Roy (2011) The Journal of Developing Areas	FDI, Financial Development (FD) and Political Risk	Panel data UNCTAD database PENN World table WDI 1984–2003 (20 years)	OLS Feasible generalized least square (FGLS)	Global- 97 countries	FDI inflows and FD strict concave relationship exist	No sample period GMM required

(Continued)

Table 1. (Continued)

21	Escaleras and Kottaridi (2014) <i>The Journal of Developing Areas</i>	The Joint Effect of Macroeconomic Uncertainty, Sociopolitical Instability, and Public Provision on Private Investment	Panel data IFS, WDI 1970–2000 (31 years)	Difference GMM System GMM	Developing countries- 37	macroeconomic instability, macroeconomic uncertainty, and socio-political instability jointly has a negative impact on private investment social and political imbalance attributes deter private investment	No clear data source/sample period restricts the relevance of the study
22	Farla, et al. (2016) <i>International Journal of Economic and Finance</i>	Institutions, FDI, and DI Crowding out or crowding in?	Panel data UNCTAD (2011) 1996–2009 (14 years)	GMM, OLS, FE Estimation	Developing Countries- 46	Net FDI and DPI negative effect FDI and GFCF (total investment) are positive and sign't	Inadequate Variable Measurement—GFCF proxy for DPI Government effectiveness excluded
23	Fowowe (2011) <i>Journal of Economic Development</i>	Financial Sector Reforms (FSR) and Private Investment (PI) in Sub-Saharan African Countries	Panel Data ADI CD-COM (2008/09) WDI CD-ROM 2008 IFS CD-ROM 2007 1980–2006 (27 years)	FE System GMM	Sub-Saharan Africa- 14 Countries	PI and FSR have a positive relationship PI and Public investment are substitutes PI and Output growth are positive the in the long run PI and Macroeconomic uncertainty are negative in the long run	No short-run output or analysis Limited to Africa

(Continued)

Table 1. (Continued)

24	Frimpong and Marbuah (2010) <i>European Journal of Social Science</i>	The determinants of Private Sector Investment (PSI) in Ghana: an ARDL approach	Times series data WDI (2004, CD-ROM), ADI (various issues) IFS, BOG, GSS, State of Ghanaian Economy (various issues) 1970–2002 (33 years)	ARDL approach, ADF, PP, co-integration, ECM, Bound test	Sub-Saharan Africa-Ghana	LR: PSI is determined by: inflation, external debt, real interest rate, openness, and real exchange rate SR: public investment, inflation, real interest rate, openness, real exchange rate, the regime of constitutional rule	The remote sample period restricts the relevance of the current study
25	Hanif and Jalaluddin (2014) <i>International Proceedings of Economics Development & Research</i>	FDI and Domestic Investment in Malaysia	Annual Time series data WDI database 1970–2011 (42 years)	Johansen and Juselius (1990) co-integration technique ECM	Asia and Pacific-Malaysia	FDI and DI long-run relationship exists FDI and DI crowd out in the short-run	Control variables ignored ARDL required
26	Hayat (2018) <i>Journal of Economic Studies</i>	FDI and economic growth: the role of natural resources?	Panel data World Bank database-WDI, WGI 1996–2015 (20 years)	GMM estimation	Low-, middle- and high-income countries	Positive and significant effect of FDI inflows on economic growth. FDI inflows on economic growth decline with the expansion in the size of natural resources	High-income countries should attract FDI regardless of the sector More robust estimations required
27	Herrera-Echeverri and Haar (2014) <i>Journal of Business Research</i>	FDI, Institutional Quality, Economic freedom and Entrepreneurship in Emerging Markets	Panel data WB Entrepreneurship snapshots, WDI, IMF, UNCTAD 2004–2009 (6 years)	Model developed RE, FE	Emerging Economies—87 countries	Governance is positive and sign't in all cases Freedom to form business sign't and positive in all cases FDI positive and sign't on business creation	Short sample period FDI and business survival required Ignored social-cultural variables

(Continued)

Table 1. (Continued)

28	Herzer (2008) Economic Letters	LR relationship between outward FDI and Domestic Output; evidence from panel data	Panel data UNCTAD FDI database WDI 2007 CD-ROM 1971–2005 (35 years)	Co-integration Pedroni (1999) approach	Industrialized countries- 14	LR: outward FDI and domestic output positive relationship Causality bidirectional	No control variables Newly Industrialized countries in Asia excluded
29	Kamaly (2014) Modern Economy	Does FDI Crowd in or out Domestic Investment? New Evidence from Emerging Economies	Annual time-series data International Financial Statistics online data 1978–2010 (33 years)	Developed a simple model Used two/ three Stage Least Squares	Emerging Economies: Latin America 5 Asia and Pacific 6 Africa and Middle East 3 Europe/ The Mediterranean 3	12 countries out of 16 were neutral 3 countries crowding out of 16 1 country crowding in: Morocco	The scope of EM covered was too small Effect on related control variables not examined
30	Lee et al. (2009) Economic Modelling	Home Country effects of FDI: from a small economy to a large economy	Panel data China statistical yearbook, IFS, WEO 1986–2005 (20 years)	FE Model of panel data analysis The endogenous growth model developed	Asia and Pacific— four Tigers, Japan; U.S	FDI/China leads Xc/ China ratio to rise significantly FDI outflow to China lead relative income between the source country and China to decrease and raised the source country's unemployment rate Export to GDP decreased for the four Tigers	Export-led growth not captured in the model GMM required
31	Menon (2014) Journal of the Asia Pacific Economy	Growth without Private Investment: what happened in Malaysia and can it be fixed?	BNM annual reports (various years) BNM Q1 2012 bulletin	Descriptive	Asia and pacific- Malaysia	Reforms critical for sustainability	Statistical analysis required Unavailability of study period limits the relevance of the study

(Continued)

Table 1. (Continued)

32	Ndikumana (2014) Revue d'économie du développement	Capital Flight (CF) and Tax Havens: impact of investment and growth in Africa	Panel data PERI, WDI online database 1970–2010 (41 years)	System GMM	Africa- Sub-Saharan Africa, North Africa- 39 countries	CF and DI are negative and significant CF, Total investment, public investment negative and significant Opportunity costs are higher in SSA than in North Africa (NA) Potential GDP growth is higher in NA than in SSA	Qualitative evidence, local, national, continental, and global level action required Limited to Africa
33	Ndikumana and Verick (2008) Development Policy Review	The linkages between FDI and DI: unraveling the developmental impact of FDI in SSA	Panel data WDI, UNCTAD online database WB, Africa database (2005) 1970–2005 (30 years)	FE Estimation	Sub-Saharan Africa- 38 countries	FDI is driven by different factors resource-intensive countries; relative to non-resource countries eg telecom infrastructure critical for attracting FDI to non-resource countries, FDI and DI positive relation: FDI crowds in DI and DI drive FDI	No data type Wider coverage with region-specific empirical study required Different methods required

(Continued)

Table 1. (Continued)

34	Ofosu-Mensah Ababio (2019) <i>International Research Journal of Finance and Economics</i>	Drivers of Domestic Private Investment, Role of Foreign Direct Investment and Economic Growth in Frontier Markets	Panel data WDI, IFS (2015) 2005–2014 (10 years)	FE; System GMM	Frontier markets- 20 countries	Access to finance, infrastructure, corruption control and manageable inflation rates are the important drivers of domestic private investment, while the cost of finance and governance factors thwart domestic private investment. FDI and DPI have a one-way directional effect, whereas a bi-directional relationship exists between DPI and economic growth.	Clear laws or stiffer punishment and private investment in developing
35	Sadiq et al. (2021) <i>Cogent Economics and Finance</i>	Nexus between economic growth and foreign private investment: evidence from Pakistan economy	Panel data Pakistan Bureau of statistics Federal Board of Revenue, Pakistan 1996–2017 (22 years)	Random effects Generalized least square (GLS)	Pakistan 17 emerging and developing countries	FPI increases contribution to the national economy, regardless of economic size	Risk factors (terrorism) not considered Local data quality and reliability FDI—domestic investment link test required
36	Serraqueiro (2017) <i>Investment Analysts Journal</i>	Investment: high-investment versus low investment Portuguese SMEs	Panel data AMARAS Database 2003–2012 (10 years)	GMM (1998)	Portuguese	Cash flows and investments are of greater importance HINTV and LINV SME. Debt stimulates HINT SMEs but restricts LINV SMEs	Remote data A firm's ownership and corporate governance are required factors

(Continued)

Table 1. (Continued)

37	Tilahun (2021) Cogent Economics and Finance	The determinants of public investment in Ethiopia: An ARDL approach.	Time series data WDI, Ministry of Finance, National Bank of Ethiopia 1985–2021 (37 years)	ARDL, Co-integrating approach	Ethiopia	A positive relationship exists between public investment; and economic growth, private investment, FDI, and other key determinants..	Johansen Co- integration not applied Limited to Ethiopia
38	Wafure and Nurudeen (2010) Global Journal of Human Social Science	Determinants of FDI in Nigeria: An empirical analysis	Time series data CBN 1977–2006 (30 years)	OLS, ADF test, ECM approach	Sub-Saharan Africa- Nigeria	Determinants of FDI: market size, deregulation, exchange rate depreciation, and political instability	Comparative data sources required Limits relevance of the study
39	Wang (2010) Applied Economics	FDI and DI in host country: evidence from panel study	Panel data IFS, IMF, WDI 1970–2004 (35 years)	GMM, RE, FE Estimations	Developed and developing- 50 countries	Developed countries: contemporaneous effect of FDI and DI is negative; The cumulative effect of FDI on DI is neutral Developing countries: contemporaneous effect of FDI and DI is neutral; The cumulative effect of FDI on DI is positive	Efficiency, government policies variables unexamined
40	Zhang (2013) China Economic Review	How does FDI affect Industrial Competitiveness? Evidence from China	Panel data Cross-sectional data China Industrial Economy & Statistical yearbook 2006–2011 (6 years)	OLS, RE, FE Estimations	Asia and Pacific- China	FDI and Industrial Performance crowd in effect FDI and Human capital complementary FDI and Industrial Competitiveness positive	GMM was not applied Local data quality and reliability

Source: Authors' compilation based on the data

28.1.1. E2 Distribution of investment research in DEEs: issues and evidence

The results in Tables 1 and 2, and Figure 1 show that FDI and DPI (11 articles, 27.5%) have been researched slightly more than FDI only (10 articles, 25%), and private investment (8 articles, 20%) impact on other variables. The fairly researched were FDI and economic growth -EG- (4 articles, 10%), and FDI, DPI, and EG (3 articles, 7.5%), whilst the least researched were DPI and EG (1 article, 2.5%), and DPI only (1 article, 2.5%) impact on other variables.

The bulk of the research explored, therefore, focused on issues that pertain to both private foreign and indigenous investment research in DEEs (see, Tables 1, 2, and Figure 1).

The knowledge gap, therefore, leans towards DPI research; DPI and EG research; and FDI and public investment research in DEEs, and the ways in which conditions inhibiting or facilitating investment, particularly DPI, could be investigated. However, most of the highly represented topics indicate well-argued literature on these research areas has been explored.

29. E2. Theoretical and empirical literature used in studying issues related to PI research

Theoretical literature indicates that theories on investment were inadequately applied (9 articles, 22.5%), whereas the most commonly used was empirical literature (27 articles, 67.5%). Within the two categories, twelve (12) articles combined both theoretical and empirical literature, while two (2) articles (5%) had unclear or no theoretical and empirical literature backing the study. Although few articles used theoretical literature, two major investment theories generally employed were the flexible accelerator theory (neoclassical model or theory of investment), and the accelerator model or theory of investment. However, the least used were product cycle theory, eclectic paradigm, modernization, and dependency theories, which are inclined to be the underpinning theories used in the research area in DEEs.

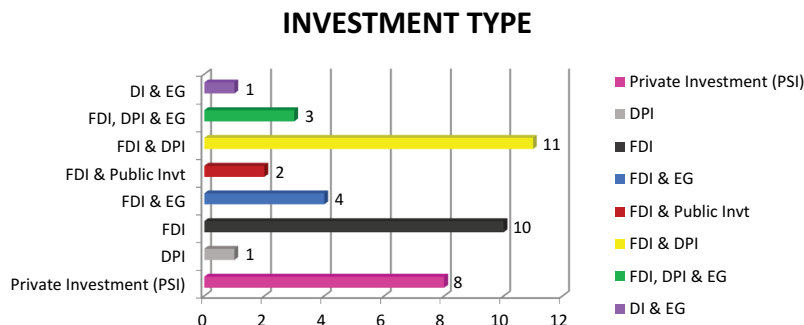
Similarly, in the empirical literature, all the theories discussed earlier were adequately applied as the underpinning theory for studying issues related to PI in DEEs. The commonly used empirical literature was based on theories and models from the accelerator model or theory of investment, the flexible accelerator theory/neoclassical model of investment, and the eclectic paradigm, modernization, and dependency theories which were equally the main foundation theories used in the research area. Besides, fairly used were the Tobin Q theory of investment, uncertainty investment theory, disequilibrium approach theory, and product cycle theory, which were the underpinning theories used in the research area. The least represented were Keynesian investment theory and the neoliberal approach to investment, inclined to be the underpinning theory used in investment research.

Table 2. Distribution of Research Articles in DEEs by Investment Type

Investment Type	No. of Articles	Percentage
Private Investment (PI)	8	20%
Domestic Private Investment (DPI)	1	2.5%
Foreign Direct Investment (FDI)	10	25%
FDI and DPI	11	27.5%
FDI and Public Investment (Pub I)	2	5%
FDI and Economic Growth (EG)	4	10%
DI and EG	1	2.5%
FDI, DPI, and EG	3	7.5%
Total	40	100%

Source: Authors' compilation based on the data

Figure 1. Distribution of Investment Research in DEEs.



Finally, there were other studies that had no defined model or theory supporting the study. Notwithstanding, investment research has fundamental theoretical and empirical foundations or underpinnings that facilitate the formulation of research models, their replication in different DEEs, and making the knowledge contributed more theoretically and practically grounded.

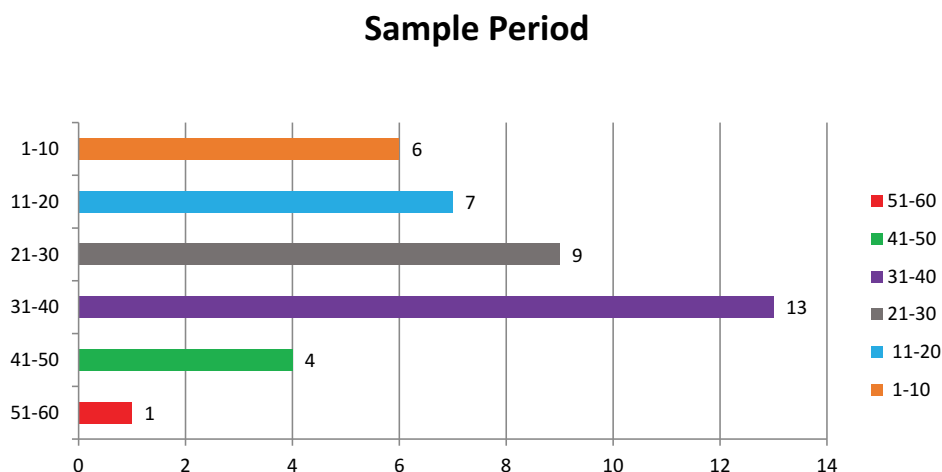
29.0.2. E3. Methodological analyses

30. Data source/sample period

The database was largely based on international sources such as the World Bank’s World Development Indicators (WDI), the IMF’s International Financial Statistics (IFS), the United Nations Conference on Trade and Development (UNCTAD), the World Economic Outlook (WEO), and the World Bank’s African Development Indicators (ADI), to name a few. The most common foreign data source used in the studies examined was WDI (20 articles), followed by UNCTAD and IFS (7 articles each). Eleven (11) papers used data from national or local sources. Moreover, six (6) articles used a mixture of foreign and/or local data sources in their research (see, Table 1). The comparatively low representation of data from local sources is due to the precision, reliability, and consistency problems that come with local data.

The sample period with the highest range of years was 31 to 40 years (13 articles), and the second-highest was from 21 to 30 years (9 articles). Similarly, fairly represented were those from 11 to 20 years (7 articles), 1 to 10 years (6 articles), 41 to 50 years (4 articles). The least represented was from 51 to 60 years (1 article), but two articles had no specified year(s) of study

Figure 2. Distribution of research articles per sample period.



(see, [Table 1](#), and [figure 2](#)). The problem here was that some of the prior research had very remote sample periods from when the papers were published, which could make the findings of studies irrelevant to current times.

31. Journals used

The journals with the highest number of research articles explored were the International Journal of Economics and Finance, with 4 articles, followed by Cogent Economics and Finance, and Applied Economics, with 3 articles each. The Journal of Developing Areas, Investment Analysts Journal, and the Journal of Business Research also recorded 2 articles each. All the others (24 journals) were less represented, with one article each (see, [Table 1](#)).

32. Year of publication

Figure 3 shows the distribution of articles by year of publication from 2005 to 2021. The year with the highest article publication was 2014 (8 articles), the next highest were recorded in 2011 (6 articles), and 2009 (5 articles). The fairly represented years of publication were 2005, and 2010 with 3 articles each, while the years 2008, 2012, 2013, 2019, and 2021 recorded only two (2) articles each. The least years of publishing in the research area were 2006, 2016, 2017, 2018, and 2020 with only one (1) article each. Unfortunately, 2007, and 2015 recorded no articles published in research areas in DEEs. Notably, the statistics indicate a dwindling interest in investment research in DEEs. The analysis, however, shows that most of the articles explored were published around the last ten years, representing about 26 articles. It shows a progression of interest in investment research in DEEs in the mid-years, rising sharply to its highest in 2014, after a fall in 2012, and 2013.

There is, therefore, a clear indication that future researchers should show more interest in investment research in DEEs so that emerging scholars and practitioners will benefit from fresh knowledge and contributions with dynamic global perspectives on the research area.

33. Data type and method

From [Table 3](#) and [Figure 3](#), two data types that were most generally used for private sector investment research in DEEs are panel data (19 articles, 48%), and time-series data (18 articles, 45%). The least was descriptive with only one (1) article. However, there were two (2) articles that used unclear methods. Also, almost all the articles used quantitative data and methods.

Consequently, future research in the area should focus on using more of the deficit methods, particularly qualitative data, to fill the gaps identified. Thus, there is a need to move beyond the quantitative methods of examining investment issues to a perspective of investment research, which should use more qualitative methods and focus on firm-level or country-level realistic issues.

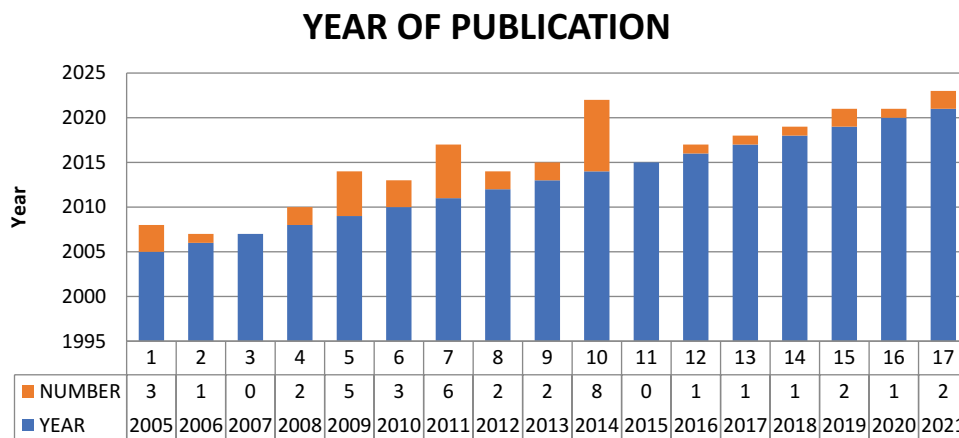
With reference to [Table 4](#) and [Figure 4](#), the most commonly used methodology for time series data on investment research in DEEs was the ARDL approach (6 articles, 33.33%), followed by

Table 3. Distribution of Research Articles by Method Used

Data Type/Method	No. of Articles	Percentage
Time Series data	18	45%
Panel data	19	48%
Descriptive	1	3%
Other	2	5%
Total	40	100%

Source: Authors' compilation based on the data

Figure 3. Distribution Research Articles by Year of Publication.



Johansen co-integration technique with 5 articles (27.78%). Ordinary Least Square (OLS) with 4 articles (22.22%) was fairly represented.

Other combinations of the methodologies using a combination of OLS, Johansen, or ARDL approaches were less represented with 2 articles (11.11%). The analysis shows a progression of strong interest by researchers in the use of superior time series approaches such as ARDL which has some econometric advantages compared to the other time-series methodologies for future research in the area, to fill the gaps identified and enrich the literature.

From Table 5 and Figure 5, the most generally used methodology for panel data on investment research in DEEs was fixed effects (FE) estimations (9 articles, 26.4%), followed by OLS (7 articles, 20.5%), and then random effects (RE) (5 articles, 14.7%). The fairly represented panel data methodologies are generalized methods of moments- GMM- (4 articles, 11.76%), Generalised Least Square- GLS- (4 articles, 11.76%), and then system GMM (3 articles, 8.82%).

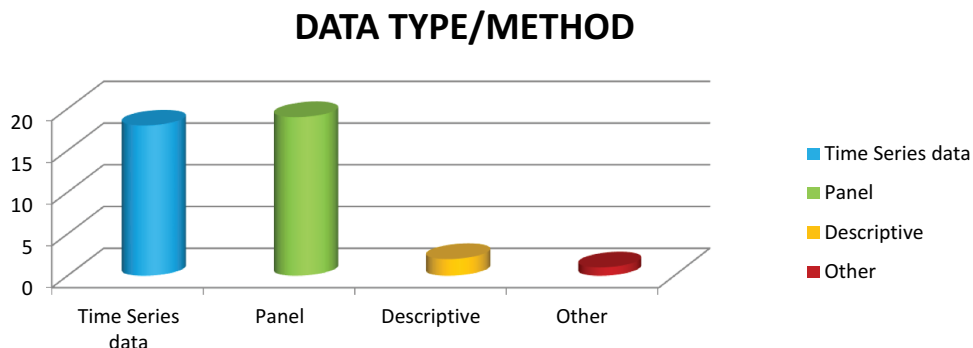
The least represented was the difference GMM (1 article, 6%), and other or combinations normally using FE, RE, GMM, or system GMM together was represented with 1 article (2.94%). Future research in the area may focus on using more of the GMM approaches, particularly system GMM, due to its superiority over the others in filling the gaps identified. Nevertheless, future research in the area may focus on using more of the GMM approaches, particularly

Table 4. Distribution of Research Articles by Methodology Used—Time series data

Methodology (Time series data)	No. of Articles	Percentage
Ordinary Least Square (OLS)	4	22.22%
Johansen Cointegration	5	27.78%
Autoregressive Distributed Lag (ARDL)	6	33.33%
Three/Two-Stage Least Square (3SLS/ 2SLS)	2	11.11%
Other/ Combined Times-series methods	1	5.55%
Total	18	100%

Source: Authors' compilation based on the data

Figure 4. Distribution of Research Articles by Data Type and Method.



system GMM, due to its superiority over the others in filling the gaps identified, and also in enriching the literature.

As shown in Tables 1 and 6, and from Figures 6 and 7, the exploration indicates that most of the research on DEEs was concentrated in Sub-Sahara Africa (13 articles, 35%), and Asia and Pacific (10 articles, 25%). The global economy, developing countries, and emerging countries were fairly represented with 3 (7.5%) articles each, while Europe and the Mediterranean, and Latin America and the Caribbean recorded 2 (5%) articles each. The least recorded was industrialized countries with only one (1) article. Surprisingly there was no representation for the Middle East and North Africa (0 article).

There seems to be a dominance of studies on investment in SSA. This is arguably reflective of the attempts to facilitate private sector investment and address obstructing and prone conditions within the region. The nonexistence of literature in the Middle East and North Africa as well as the relatively low representation of industrialized countries, Europe and the Mediterranean, and Latin America and the Caribbean require more research to be conducted on PSI in those regions. Consequently, on a regional basis, FDI has continued an upward trend in the Asia-Pacific, Latin America, and Caribbean regions. Sadly, despite increased FDI to SSA, the region continues to rank poorly in terms of investor preference.

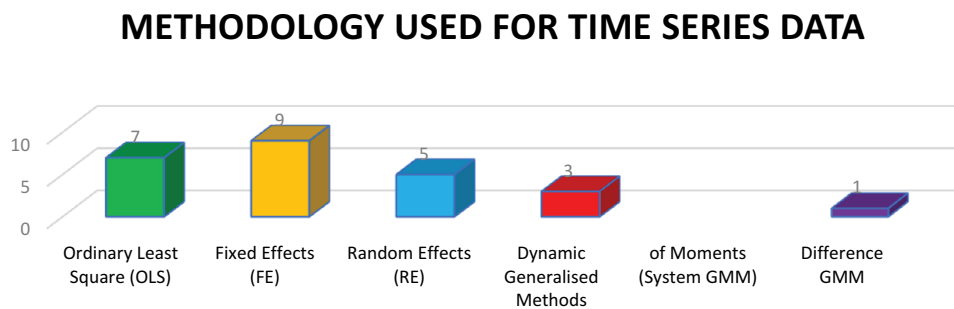
There seems to be a dominance of studies on PI in SSA. This is arguably reflective of the attempts to facilitate private sector investment and address obstructing and prone conditions

Table 5. Distribution of Research Articles by Methodology Used- Panel data

Methodology (Panel data)	No. of Articles	Percentage
Ordinary Least Square (OLS)	7	20.58%
Fixed Effects (FE)	9	26.47%
Random Effects (RE)	5	14.71%
Dynamic Generalised Methods of Moments (System GMM)	3	8.82%
Difference GMM	1	2.94%
Generalised Methods of Moments (GMM)	4	11.76%
Generalised Least Square (GLS)	4	11.76%
Other/ Combined panel methods	1	2.94%
Total	34	100%

Source: Authors' compilation based on the data

Figure 5. Distribution of Research Articles by Methodology Used (Time Series data).



within the region. The nonexistence of literature in the Middle East and North Africa (0 articles) as well as the relatively low representation of Europe and the Mediterranean (2 articles, 5%), and Latin America and the Caribbean (2 articles, 5%) require more research to be conducted on PSI in those regions. Consequently, on a regional basis, FDI has continued an upward trend in the Asia-Pacific, Latin America, and Caribbean regions. Sadly, despite increased FDI to SSA, the region continues to rank poorly in terms of investor preference.

33.1. F. Conclusion, research gaps and pointers for future research

33.1.1. F1. Research gaps identified

34. Gaps in issues and evidence

The first identified gaps in the literature explored were on private sector investment research issues in DEEs. There is a lack of adequate evidence for private investment research, particularly, domestic private investment (DPI), and DPI’s relationship with EG in DEEs. Both had very low representation. Clearly, what seems to be lacking are private investment issues, especially on DPI research, but the lack of focus on DPI is a critical or significant loophole with respect to the literature on investment research in DEEs. There is therefore a need to conduct more research on empirical evidence-deficient areas to help enrich the literature on private investment in DEEs in general, and more particularly, on promoting DPI in developing and emerging economies.

The existing empirical research has glossed over certain potential antecedents of DPI, channels (moderators and mediators) through which DPI influences economic growth of DEEs as well as the ramifications of the economic growth induced by DPI. On the antecedents, some country-specific factors such as culture, institutional quality, structural adjustments, governance regimes and

Table 6. Distribution of Research Articles by Geographical Region

Geographical Region	No. of Articles	Percentage
Sub-Saharan Africa (SSA)	14	35%
Middle East and North Africa	0	0 %
Asia and Pacific	10	25%
Europe and The Mediterranean	2	5%
Latin America and Caribbean	2	5%
Global Economy	3	7.5%
Developing countries	3	7.5%
Emerging countries	3	7.5
Industrialized countries	1	2.5%
Total	40	100%

Source: Authors’ compilation based on the data

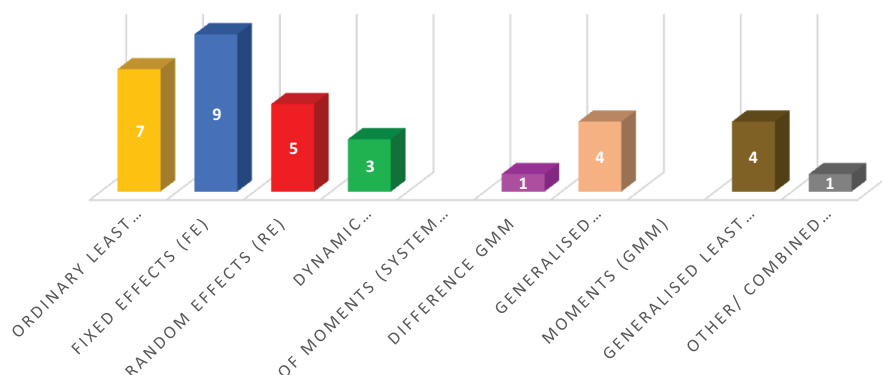
Figure 6. Distribution of Research Articles by Methodology Used (Panel data).

METHODOLOGY USED FOR PANEL DATA



or

METHODOLOGY USED FOR PANEL DATA



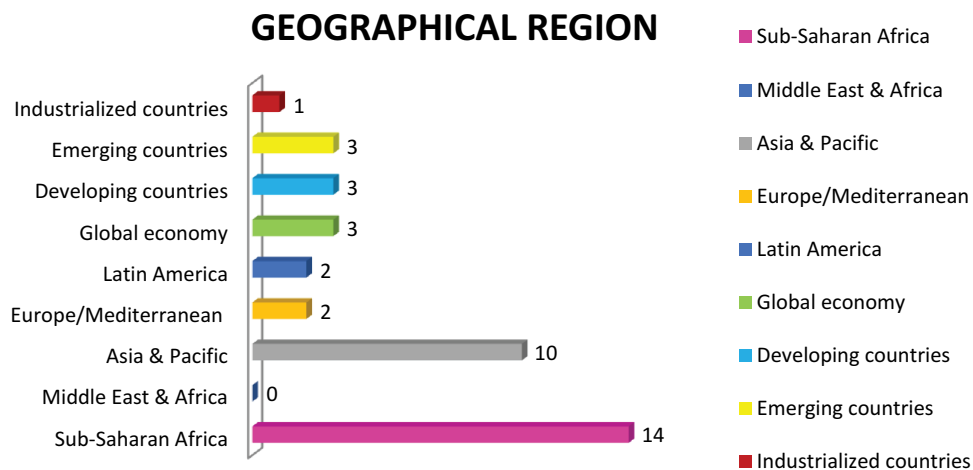
internal crises like political, economic, as well as disasters have not been adequately addressed in the existing literature. The effect of external conditioning factors such as geopolitical risk, pandemics (such as COVID-19) and global financial crises on DPI in DEE need to be investigated inform policies under such unusual circumstances. Additionally, the linkages between DPI and macro-economic variables (inflation, exchange rate, trade openness) as well as development of institutional qualities and financial markets need to be deeply explored since they are key channels to economic growth in DEE. Furthermore, inclusive growth effect of DPI through the identified channels to growth is a gray area in research. Lastly, little is known on the effects of DPI on social and environmental sustainability such as CO₂ emissions and social welfare in DEE especially through the growth channel.

35. Gaps in theories

The second identified gaps relate to theories used to investigate issues of private investment research in DEE. Thus, whether private investment research in DEEs has underpinning theories adequately applied in all the investment research areas. Only a few studies had no clear theories backing them. Furthermore, the gaps identified with regard to theoretical and empirical literature indicate that empirical literature was the most commonly used. The less used approach was theoretical literature. This shows there is a gap in the use of this approach in researching issues of private investment in DEEs. Also, another gap identified which needs to be addressed to ensure research on private investment in DEEs is theoretically grounded is the lack of theory used evidently.

The consideration of the suggested conditioning factors of private investment especially DPI and the analysis of the growth effects of DPI through several channels as well as the sustainability implications

Figure 7. Distribution of PSI in DEs Research Articles by Geographical Region.



of private investment would necessitate an expansion in the traditional theories generally used in PI research. For instance, considering the effects of culture, institutional factors, geopolitical risk, pandemics, and disasters would invariably require a multidisciplinary approach to dealing with PI and its ramifications. These would require extension of relevant theories from psychology, sociology and other related disciplines to gain a comprehensive understanding of PI in DEE.

36. Gaps in methodological approach

The third identified gaps in the literature explored are in the methodologies for conducting private investment in DEEs. With regards to the methodology used, there were gaps in not using more superior or advanced econometric methodologies in the case of both time series and panel data. Thus, few of the pioneering and current studies lacked modern methods and/or superior techniques. Another gap was the dominance of quantitative approaches, reflecting the entrenchment of the positivist research tradition in investment research, a tendency that dominates finance research in general.

Consequently, the most apparent gap here was the lack of studies using qualitative approaches. Such approaches are crucial in research on private investment because they have the advantage of bringing out the realities of issues investigated due to the direct participation, interviewing, and/or observation of subjects or respondents. Hence, firm, industry, and/or country-specific issues can be best identified and addressed academically as well as practically. Furthermore, the interrelationship among DPI, growth, and other macroeconomic variables could be better analysed within a vector autoregressive framework either in its panel or time series forms so that the simultaneity of the variables could be assessed to inform policies for DEE. Also, assessing the interrelationship among PI, growth and other macroeconomic variables could be explored using high frequency data and approaches such as wavelet coherence and the associated cohort of decomposition approaches that allow for comprehensive analysis across time and frequency.

A few articles excluded the output and analysis of the short-run dynamics from the presentation of their findings or outcomes, but they failed to justify the exclusion. Furthermore, most of the journals were not sufficiently or fairly represented. It is unnecessary to highlight that with the majority representation of one article each per journal, a gap exists in this area. Likewise, with the year of publication, a gap exists in the earlier and recent years. So, it is good to suggest that more interest should be shown in private investment research in the ensuing years. Some articles had no specified data sources for the studies, a few failed to include control variables, and some included too many control variables in their models and tested them directly, instead of using a matrix or vector representation. An article had no clearly stated data type for the study; some

used only local data, which normally has controversies with regard to quality, accuracy, and reliability. In all the lapse cases, no justification was provided.

Furthermore, a few articles struggled with variable estimation and used non-standardized metrics to measure domestic investment; some articles distinguished foreign investment from DPI by subtracting net FDI inflow and public investment from the gross fixed capital formation (GFCF). Others took a similar approach and measured domestic investment by subtracting FDI inflow from GFCF, while others used total investment as a proxy for DPI. Furthermore, most existing studies computed FDI using a variety of definitions, including FDI stock, FDI inflow, and net FDI inflows. The impact of the “net contribution of FDI to the financing of private capital formation” is measured in one paper, which “deflates” gross FDI inflows by subtracting repatriation of income and dividends. In the literature, FDI was generally measured by the net flow of foreign investment divided by the gross domestic product. Similarly, government effectiveness was omitted from the assessment of quality institutions in a few journals, which was contrary to Kaufmann, Kraay, & Mastruzzi’s standard scale (2010).

37. Gaps in geographical coverage/scope

Lastly, a significant gap was found in the geographical distribution. The studies explored tended to focus largely on private investment activities located in Sub-Sahara Africa and Asia-Pacific, but there was no representation for MENA. There is, therefore, an urgent need to increase or conduct more research on foreign and domestic investment activities located in MENA and other less-represented regions. Also, some of the national and global studies had limited geographical scope to enable comparative analysis and generalization of their findings. To fill the geographical gap, future research should widen the geographical scope to take care of the lacking areas and regions.

37.0.2. F2. Pointers for future research

38. Future research agenda and directions

The findings of this study provide useful and insightful information for future research agendas and directions. Future researchers investigating private investment activities in DEEs should use more theoretical literature to support their studies. More research is needed to explore the application of the theories of investment through replication of other studies in different countries and regions like MENA. Additionally, in order to enhance the external validity of findings, the theoretical depth, and practical orientation of knowledge that contributed to the development of such theories, more private investment research is needed. Another area worthy of note is to fill the gaps identified in issues, evidence, theories, methodological approaches, and geographical coverage of private investment research in DEEs. A useful extension of the present review would be to explore and examine DPI research in Africa, where PI activities are confronted with a lot of constraints, challenges, and uncertainties. This, therefore, calls for further investigation to determine the exact conditions which inhibit or facilitate private investment participation and thriving in DEEs.

39. Potential future research areas

The aim of the present review is to enable researchers, scholars, and practitioners to identify potential private investment research areas that could be empirically investigated. Therefore, areas worthy of research include: constraints to private sector investment in the context of developing and emerging economies; domestic business growth, and sustainability with qualitative evidence from Africa; do private enterprises grow horizontally or vertically? evidence from emerging and developed economies; do private enterprises operate at full capacity?, do they focus on productivity growth, firm sustainability, or enterprise growth?: evidence from emerging and developed economies; and the causes of private enterprise closures or survival: mixed evidence from Ghana, Nigeria, and South Africa. This review, therefore, calls for further research from the above perspectives.

40. F3. Conclusion

Domestic and foreign private investments have been identified as the primary drivers or movers of economic growth in developing, emerging, and frontier economies over the last decade. To shed some further light on the private investment promotion debate, this review was carried out to explore and examine the current state of research on the subject matter as well as to identify the gaps and trends yet to be investigated and addressed to enrich the literature. The extant literature has particularly focused on private investment (composing of FDI and DPI) in DEEs compared to only DPI or DPI and EG in DEEs, thus the former has gained much attention from researchers. Accordingly, much focus should be placed on the areas of least research.

Additionally, the fact that virtually all the studies did not use qualitative methods, but rather quantitative methods were consistently used, has eluded scholarly attention. This calls for more attention to be paid to the methodological approaches used in conducting research on private sector investment, finance, and investment in its entirety to have a feel of the realities of the issues explored.

Moreover, given that in developed countries where data is more reliable, the findings of most of the studies seem reflective of the reality of issues researched, compared to the majority of the findings of studies conducted in developing countries. Clearly, the accuracy, reliability, and quality of data or responses produce differences in the findings of studies conducted in DEEs even when the same methodology is applied, compared to a developed economy where institutions work well, hence, data collected is more reliable and of high quality.

The strength of the studies reviewed is that the majority of them offered new solutions, but only a small number of the local-based studies did not offer new solutions. The study makes known the experts and elite journals in the fields of FDI and DPI, FDI, PI, and to a limited extent, FDI, DPI, and EG research, and the new trends for studying, especially cross-country research. Finally, it was observed that most of the findings of the research conducted, particularly on an international basis, in terms of significance, accuracy, and clarity, were of a high standard and were properly communicated.

Author details

Josephine Ofosu-Mensah Ababio¹
Anthony Q.Q. Aboagye²
Charles Barnor¹
Samuel Kwaku Agyei³
E-mail: sagyei@ucc.edu.gh
ORCID ID: <http://orcid.org/0000-0002-8167-7747>

¹ Department of Banking and Finance, University of Professional Studies, Accra, Ghana.

² Professor of Finance, University of Ghana Business School, University of Ghana, Legon.

³ School of Business, University of Cape Coast Cape Coast Ghana.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Citation information

Cite this article as: Foreign and domestic private investment in developing and emerging economies: A review of literature, Josephine Ofosu-Mensah Ababio, Anthony Q.Q. Aboagye, Charles Barnor & Samuel Kwaku Agyei, *Cogent Economics & Finance* (2022), 10: 2132646.

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