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## Article

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# Political situation, legal and labour regulatory regimes and employment creation by firms in emerging economies

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## Abstract

**Purpose** – This study investigates the legal system, labour regulations and political uncertainty effects on employment creation in emerging economies (EE). Also, size, export focus, ownership and sector influences on employment creation are explored.

**Design/methodology/approach** – The study utilized the generalised methods of moments estimator, relying on data from 69 emerging economies. A Bayesian estimation technique is adopted to robustly check the GMM results.

**Findings** – Evidence shows that concerns about political instability, the court system and labour regulations constrain employment creation. The study finds significant firm size, export orientation and sector effects and an insignificant ownership effect on employment creation.

**Practical implications** – The findings show that employment creation policies should improve the court system and instil firms' confidence in the legal regime, ensuring political stability and a favourable labour regulatory regime. Also, policy must not emphasise foreign firms over domestic firms, as they impact employment creation equally.

**Originality/value** – The study applies GMM and Bayesian estimation techniques to evaluate employment creation and provides both theoretical and practical insights. The evidence provides insights for policymakers to enhance employment creation. The study's evidence supports the rational decision and real options theories and extends the employment creation literature.

**Keywords** Emerging economies, Employment creation, Court systems, Labour regulation, Labour productivity, Investments

**Paper type** Research paper

## 1. Introduction

The study investigates the relevance of the legal and regulatory structures and political settings to employment creation by emerging economies (EEs) firms. Sustainable employment creation has implications for the success of EEs economic and employment policies, social welfare, national security, social cohesion and household stability. Employment creation may reduce violence, criminality and household insecurity, ensuring the stability and security of nations (Özberk and Cicerali, 2024; Surajo and Karim, 2016). However, an inefficient legal system and inadequate labour regulatory systems may undermine investor confidence, shareholder rights protection, contract enforceability, investments, entrepreneurship and thus, sustainable employment creation (Zhang *et al.*, 2020; Qian *et al.*, 2020; Coviello *et al.*, 2018). Similarly, an efficient regulatory system enhances market efficiency, global capital flows, global risk-sharing, employees' tenure security, firms' efficiency, investment and employment

**JEL Classification** — C11, J01, J21, L25, L50, P00, M51, M54, E24, F66

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creation (Jha and Hasan, 2022; Boamah, 2021, 2022). Also, political uncertainty heightens market uncertainty and disrupts investment decisions and employment creation (Ibrahim and Ngahene, 2024; Sayed and Abdelrahim, 2024; Bahri *et al.*, 2021).

The preceding discussions indicate that the political setting and the legal and labour regulatory structures have implications for sustainable employment creation and the long-term stability of EEs. Therefore, it is essential to the growth and stability of EEs to explore their consequence on EEs employment creation. These issues have yet to be addressed directly and comprehensively by prior studies. Atiase *et al.* (2018), Coviello *et al.* (2018), Qian *et al.* (2020) and Zhang *et al.* (2020) investigate the effect of the legal structures and contract enforceability on firms' performance. In addition, Rezgallah *et al.* (2019), Saif-Alyousfi (2020), Loukil (2020), and Montes and Nogueira (2022) explore the influence of political setting on performance. However, these studies have yet to explore EEs employment creation. The consequences of potential size, exports, sector, and ownership effects on employment creation in EEs have yet to be exhaustively explored.

This study explores the descriptive ability of political settings, labour regulation, and the legal environment for the cross-sectional variations in EEs employment creation. It relies on comprehensive firm-level data across 69 emerging economies and adopts GMM and Bayesian estimation techniques. Assembling data across many economies is akin to studying a large economy with a diverse industrial structure. Therefore, the estimates from the study reflect the average factors that describe the employment creation across these economies. The evidence may apply to a wide range of EEs. The pooling also ensures that we obtain a large number of diversified factors, improving the power of our tests. The adopted estimation techniques also ensure the reliability of the study's results. The study's findings contribute to the emerging economies literature and business development and employment policies. The study's findings will provide practical and theoretical insights into employment creation and extend the existing literature.

The study shows that increasing concerns about political instability, the court system, and labour regulations reduce employment creation. Similarly, increased labour productivity growth and firm age minimise employment creation. However, increased confidence in the legal system and productive asset investments improves employment creation. Also, exporting and non-exporting firms significantly contribute to employment creation in EEs. Additionally, the contribution of foreign and domestic firms to employment creation is similar. In addition, non-manufacturing firms contribute more to employment creation than manufacturing ones. Also, large firms add more to employment creation than non-large firms.

The remainder of this paper is organized as follows: The related literature and data are discussed in Sections 2 and 3 correspondingly. The study's methodology and findings are respectively presented in Sections 4 and 5 with conclusions in Section 6.

## 2. Related literature

### 2.1 Theoretical review

We explore the influence of political instability, legal systems and regulations on employment creation from the standpoint of the Real Options Theory (ROT) and the Rational Decision Theory (EDT). The rational decision theory postulates that rational decision-makers consider the potential utilities and the likelihood of occurrence from an alternative course of action (Gabor, 1976; Singer, 1963; Simon, 1955). Firms' decisions to create employment are rational (Simon, 1955). Therefore, firms will respond to regulatory, legal system and political challenges by pursuing alternatives that maximise satisfaction. Firms will, therefore, evaluate the potential alternatives and their impact on their investment performance in response to political uncertainties, regulations, and legal system constraints. The alternative that enables them to maximise their investments' gains would thus be pursued. If political uncertainties, inefficient legal systems, and regulations constrain firms' profitability, they may be less likely to increase investments, thus employment creation. However, if firms' performance is not

constrained or significantly undermined despite stringent regulations, inefficient legal systems, and political uncertainty, firms may still increase investments, leading to employment creation.

Myers's Real Options Theory (1977) explores investment options in an uncertain world and the value created by such investments through future choices. The theory posits that uncertainty may cause firms to postpone or abandon investment plans. Increasing uncertainty constrains investments as investor scepticism increases, leading to delay or abandonment of investment plans (Bernanke, 1983; McDonald and Siegel, 1986). Bloom (2014) observes that uncertainty impacts investment and economic outcomes and the sensitivity of investment behaviour drivers. Thus, political, legal system and regulatory uncertainties may coincide with declining employment creation due to production and investment uncertainties. Thus, political, legal, and regulatory uncertainties may constrain employment creation.

## 2.2 Empirical literature review

Political uncertainty may affect firm performance and employment creation. Ibrahim and Ngahene (2024) and Yusuf *et al.* (2020) suggest a negative influence of political instability on investments. Ibrahim and Ngahene show that the effect is higher for medium-sized companies but marginal for small firms. Similarly, Montes and Nogueira (2022) show that in a politically unstable environment, entrepreneurs are most concerned about economic stability and the survival of their businesses over time. This consequently discourages investments and employment creation. Sayed and Abdelrahim (2024) note that political stability positively impacts entrepreneurship among GCC countries. They underscored the relevance of political stability in promoting innovation and creating a conducive environment to drive entrepreneurship and employment creation. Farooq *et al.* (2021) show that political instability negatively impacts firm performance and continuous survival. They observe that firms disclose quality and reliable information to minimise the negative consequences of political uncertainty on their success. Loukil (2020) and Matta *et al.* (2018) suggest that political uncertainty harms Tunisian firms' performance. Matta *et al.* suggest that export-oriented and smaller firms and firms in the hospitality and tourism sectors suffer most from political uncertainty.

The legal system may be relevant to firm success and employment creation. Atiase *et al.* (2018) observe that an effective legal system promotes entrepreneurial drive in Africa. They argue that contract enforcement is difficult in Africa due to the inefficient court system. Similarly, Coviello *et al.* (2018) argue that an inefficient legal system delays the delivery of projects and thus slows down business growth and employment creation. Likewise, Qian *et al.* (2020) show that legal enforcement influences the association among contract implementation and performance. In an inefficient legal system, firm owners are less willing to diversify ownership and raise additional capital – this constrains business expansion and growth and potentially slows employment creation. Corroborating, Zhang *et al.* (2020) observe that contract enforceability enhances firm performance and employment creation.

Similarly, Gwatidzo and Moyo (2014) observe that more flexible labour regulations can easily absorb shocks and increase employment creation. Corroborating, Mamatzakis *et al.* (2013) find that strict labour market regulations reduce firms' efficiency and economic performance. Quite recently, Mamatzakis *et al.* (2022) find that stricter labour regulations hamper the economic performance of firms. However, Bilbao-Ubillos *et al.* (2018) show an insignificant effect of labour market regulation on the unemployment rate. Angulo-Guerrero *et al.* (2024) observe that stricter labour regulations promote entrepreneurship across developing economies rather than fostering employment creation. Similarly, Fiaschi and Tealdi (2024) note that increased rigidity of labour regulations increases job security. They further note that strict labour regulation reduces unemployment. Brookes *et al.* (2018) thus suggest that the consequence of labour laws differs across nations. Therefore, a clear negative relationship between regulatory stringency and productivity cannot be established.

The preceding discussions show that political instability, inefficient legal systems, and labour regulations disrupt firms' investments and performance. Much of the literature broadly explores firm performance, focusing little on employment creation in emerging economies. Also, earlier studies have not investigated the relative importance of political uncertainty, inefficient legal systems, and labour regulations for sustainable employment creation. There is a need to explore these issues further. This study contributes in addressing these gaps. The following hypotheses are therefore formulated;

- H1. Political uncertainty has a negative effect on employment creation.
- H2. Stringent labour regulations have a mixed effect on employment creation.
- H3. Inefficient legal systems have a negative effect on employment creation.

### 3. Data and descriptive statistics

The study's data were obtained from the World Bank Enterprise Survey database for the 2010, 2013, 2017, and 2019 periods. The collected data for each year are firm-level cross-sectional data. We select data at four-year intervals starting from 2010. However, we select the adjoining year with data on relatively many countries if the fourth year has data on fewer countries. The approach helped select the years with the most extensive set of data at reasonable intervals, improving the power of the study's tests. Also, the approach allowed adequate cross-sectional and time-series variations in the data. It ensures that the data for each selected year reasonably represent the emerging markets, thus the study's evidence may apply to a broad range of emerging markets. As a result, 2013 (39 countries) was selected instead of 2014 (11 countries) and 2017 (10 countries) as opposed to 2018 (7 countries) and 2019 (25 countries) compared to 2020 (4 countries). The sampled years contain firm-level data on 69 unique countries. The total cross-sectional observations across the sampled countries range from 4,875 (2017) to 23,363 (2013). Thus, the observations for each cross-section are sufficient for efficient parameter estimation. We collected data on annual employment growth (AEG), annual labour productivity growth (ALP), percentage of firms buying fixed assets (PFA), percentage of firms identifying the courts' system as a major constraint (PCC), percentage of firms believing the court system is fair, impartial and uncorrupted (PCF), percentage of firms identifying labour regulations as a major constraint (PLR), percentage of firms identifying political instability as a major constraint (PPI), and age of the establishment in years (AGF).

Table 1 presents the variables descriptive statistics. The Table indicates that the mean AEG ranged from 2.63% (2013) to 4.41% (2017), with volatility in the range of 14.78% (2019) to 16.85% (2010). The evidence indicates that employment growth in emerging economies decreased between the 2010 (3.71%) and 2017 (2.73%) eras, but the decline is non-monotonic. In addition, the AEG is quite volatile. The evidence appears consistent with [Jung and Lim \(2020\)](#) but contradicts that of [Okumu et al. \(2019\)](#). The evidence shows that the mean (standard deviation) of PCC and PCF are in the range of 10.17–29.43% (30.22–45.57%) and 12.86–45.58% (33.48–49.81%) respectively. The PCC decreased non-consistently from 29.43% (2010) to 14.38% (2019). Over the same period, the PCF increased from 23.01% to 45.58%. Although firms' confidence in the courts has increased recently, the proportion of firms with confidence in the legal system is relatively low. This may signal challenges in the contract enforcement system and constrain employment creation in EEs. The PCC and PCF evidence contradicts the findings of [Roxas et al. \(2012\)](#).

The lowest and highest mean of PLR are 8.96% (2013) and 28.62% (2017), respectively. The findings imply that firms concerned about labour regulations are generally high across EEs (averaging 17.40% for the sampled years). This may drive down employment creation as firms manage their labour regulatory risk by reducing labour, shifting to less labour-intensive activities, or adopting technologies requiring less labour. The PLR evidence corroborates with

**Table 1.** Descriptive statistics

	AEG	ALP	PFA	PPI	PCF	PCC	PLR	AGF
<i>Panel A: 2010</i>								
Mean	0.0371	0.1559	0.5432	0.3670	0.2301	0.294 3	0.2101	22.64
Standard deviation	0.1685	25.4176	0.4982	0.4820	0.4209	0.4557	0.4074	18.2527
Skewness	0.4187	1.1094	−0.1734	0.5519	1.2824	0.9028	1.4231	1.9738
Kurtosis	8.3107	8.1796	1.0301	1.3046	2.6446	1.8151	3.0253	9.4897
Observations	11,703							
<i>Panel B: 2013</i>								
Mean	0.0263	−3.7568	0.3482	0.4090	0.3854	0.1017	0.0896	16.65
Standard deviation	0.1519	22.4660	0.4764	0.4917	0.4867	0.3022	0.2857	13.3193
Skewness	0.3942	0.3612	0.6371	0.3703	0.4708	2.6363	2.8733	2.0792
Kurtosis	9.6666	8.1285	1.4059	1.1371	1.2216	7.9502	9.2556	10.5517
Observations	23,363							
<i>Panel C: 2017</i>								
Mean	0.0441	−1.0893	0.5362	0.4646	0.1286	0.2706	0.2862	24.55
Standard deviation	0.1649	20.0102	0.4987	0.4988	0.3348	0.4443	0.4520	18.8547
Skewness	0.5564	0.4068	−0.1452	0.1419	2.2187	1.0329	0.9463	1.9237
Kurtosis	6.9559	8.3082	1.0211	1.0201	5.9227	2.0669	1.8955	9.4282
Observations	4,875							
<i>Panel D: 2019</i>								
Mean	0.0273	−1.1572	0.3430	0.3140	0.4558	0.1438	0.1100	17.11
Standard deviation	0.1478	21.2845	0.4747	0.4641	0.4981	0.3509	0.3129	13.1851
Skewness	0.4184	0.6064	0.6613	0.8015	0.1776	2.0297	2.4933	2.2346
Kurtosis	10.4817	9.1372	1.4374	1.6424	1.0315	5.1197	7.2164	12.0986
Observations	16,267							

**Note(s):** This Table records the descriptive statistics of the study's variables. AEG, ALP, PFA, PCC, PCF, PLR, PPI and AGF are, respectively, annual employment growth, annual labour productivity growth, percentage of firms buying fixed assets, percentage of firms identifying the courts' system as a major constraint, percentage of firms believing the court system is fair, impartial and uncorrupted, percentage of firms identifying labour regulations as a major constraint, percentage of firms identifying political instability as a major constraint, and age of the establishment in years

**Source(s):** Authors' construct 2025

those of [Polat and Andres \(2017\)](#). The Table indicates that EEs firms are generally young, with the average firm age ranging from 16.65 (2013) to 24.55 (2017) years. The relatively young firms in EEs suggest potentially high growth and employment creation opportunities.

Also, the highest mean PPI was recorded in 2017 (46.46%), with the lowest value recorded in 2019 (31.40%). The mean PPI of 38.87% for the studied years is relatively high. This suggests that concerns about political instability are significant in EEs. This may constrain employment creation and undermine the realisation of employment policy objectives in EEs. The findings concur with [Matta et al. \(2018\)](#) and [Yusuf et al. \(2020\)](#). The Table indicates a non-monotonic decline in ALP from 15.59% to −11.57% between 2010 and 2019. Also, PFA declined non-consistently from 54.32% (2010) to 34.30% (2019). The ALP evidence may have negative consequences for employment creation. The ALP finding supports the evidence of [Boamah et al. \(2023a\)](#). The PFA finding suggests that EEs firms need more capacity to invest in fixed assets, contradicting the findings of [Szymanska and Dziwulski \(2021\)](#). Taking the ALP and PFA together, the evidence implies that low labour productivity may have undermined the capability of EEs firms to invest in fixed assets. This may slow down employment creation in EEs. The result is inconsistent with [Heshmati and Rashidghalam \(2016\)](#). Table 1 show that the adopted variables are non-normally distributed.

We examine the correlation structure of the study's variables and record the evidence in Table 2. Except for PFA, employment growth has negative correlation with all the variables. The findings corroborate prior studies such as Polat and Andres (2017), Mamatzakis *et al.* (2022), Matta *et al.* (2018) and Coviello *et al.* (2018). In addition, Table 2 indicates that ALP has positive correlation with all the variables except PPI, PCF and AEG. The ALP correlations appear consistent with Ksoll *et al.* (2021) and Muhoza and Majure (2022). In addition, PFA exhibits a positive correlation with all variables, excluding PCF, which contradicts the evidence of Troilo and Collins (2017). Further, Table 2 indicates that PPI has negative correlations with all variables, excluding PFA, PCC, PLR, and AGFL. This appears consistent with Muhoza and Majure (2022). Also, PCF correlates negatively with all the other variables. Besides AEG and PCF, we find positive correlation between PLMC and all the other variables. Also, AGF correlates positively with all variables aside from AEG and PCF. The PLR evidence concurs with Gwatidzo and Moyo (2014). The AGF and AEG findings corroborate and contradict the evidence of Calvino (2016) and Bandick and Gorg (2010), respectively. The absolute correlations ranging from 0.0012 to 0.2835 are quite low, suggesting that multicollinearity has a limited effect on the study's results. Also, the statistical significance of some of the low correlations may result from the relatively large cross-sectional observations employed in the study.

#### 4. Methodology

The study investigates the influence of the legal environment, labour regulation, and political situation on employment creation in emerging economies via the cross-sectional Equation (1). We explore the ability of these variables to describe the cross-sectional variations in employment creation since literature (see, e.g. Sayed and Abedelrahim, 2024; Boamah *et al.*, 2023b; Qian *et al.*, 2020) suggests their relevance. The cross-sectional estimation approach was adopted due to limited time series observations. Equation (1) controls the potential influence of labour efficiency, investments in productive assets, and firm age on employment creation (see, e.g. Szymanska and Dziwulski, 2021; Moric *et al.*, 2021; Baffour *et al.*, 2020). Therefore, Equation (1) examines the effect of the legal setting, political environment, and labour regulation on employment creation after adjusting for the potential effect of labour efficiency, investments in productive assets, and firm age. Equation (1) is estimated using the Generalised Methods of Moments (GMM) estimator. The GMM addresses heteroskedasticity, endogeneity, heterogeneity, and dependent variable persistence problems (Zhao *et al.*, 2021; Sarpong- Kumankoma, 2021), making it appropriate for the study. The study conducts methodological robustness check using a Bayesian estimation approach (see, Section 5.1).

**Table 2.** Correlation matrix

	AEG	ALP	PFA	PPI	PCF	PCC	PLR
AEG	1						
ALP	−0.2371***	1					
PFA	0.1003***	0.0256***	1				
PPI	−0.0414***	−0.0069*	0.0324***	1			
PCF	−0.0012*	−0.0116*	−0.0652***	−0.1134***	1		
PCC	−0.0186**	0.0164**	0.0583***	0.2835***	−0.1335***	1	
PLR	−0.0124***	0.0100**	0.0491***	0.1888***	−0.0415**	0.2737***	1
AGF	−0.1124**	0.0099***	0.0337***	0.0687**	−0.0202**	0.0655***	0.0724***

**Note(s):** \*\*\*, \*\*, and \* are respectively the 1%, 5% and 10% levels of significance. This Table presents the correlation matrix of the study's variables

**Source(s):** Authors' construct 2025



$$EPC_i = \alpha + \beta^1 CLS_i + \beta^2 TLS_i + \beta^3 LBR_i + \beta^4 POS_i + \beta^5 LBE_i + \beta^6 IPA_i + \beta^7 AGL_i + \beta^8 DXP_i + \beta^9 DDM_i + \beta^{10} DMF_i + \beta^{11} DLG_i + \varepsilon_i \tag{1}$$

$\alpha$  = intercept,  $\beta$  = coefficients,  $EPC$  = employment creation,

$CLS$  = concerns with the legal system,  $TLS$  = trust in the legal system,

$LBR$  = labour regulation,  $POS$  = political situation,  $LBE$  = labour efficiency,

$AGL$  = log of firm age,  $IPA$  = investment in productive assets,

$DXP$  = an indicator variable which takes 1 for exporting firms and 0 otherwise,

$DDM$  = an indicator variable which takes the 1 for domestic firms and 0 otherwise,

$DMF$  = an indicator variable which takes 1 for manufacturing firms and 0 otherwise,

$DLG$  = an indicator variable which takes 1 for large firms and 0 otherwise,

$\varepsilon$  = error term.

Our surrogates for employment creation, concerns with the legal system, trust in the legal system, labour regulation, political situation, labour efficiency, investments in productive assets, and firm age are, respectively, AEG, PCC, PCF, PLR, PPI, ALP, PFA, and AGF. The legal environment is measured by trust in the legal system or concerns with the legal system. [Table 3](#) reports further details of the variables.

**Table 3.** Details of the study’s variables

Variable	Code	Scale	Definition of variables
Employment creation	EPC	Ratio	Annual employment growth (AEG)
Legal system	TLS	Ratio	Percentage of firms believing the court system is fair, impartial and uncorrupted (PCF)
	CLS	Ratio	Percentage of firms identifying the courts’ system as a major constraint (PCC)
Labour regulation	LBR	Ratio	Percentage of firms identifying labour regulations as a major constraint (PLR)
Political situation	POS	Ratio	Percentage of firms identifying political instability as a major constraint (PPI)
Labour efficiency	LBE	Ratio	Annual labour productivity growth (ALP)
Investments in productive assets	IPA	Ratio	Percentage of firms buying fixed assets (PFA)
Firm age	AGL	Log	Age of the establishment in years (AGF)
Firms’ ownership	DDM	Dummy	It takes 1 for domestically owned firms and 0 for foreign firms
Firms’ sector	DMF	Dummy	It takes 1 for manufacturing firms and 0 for service firms
Firm’s size	DLG	Dummy	It takes 1 for large firms and 0 for small firms
Export orientation	DXP	Dummy	It takes 1 for exporting firms and 0 for non-exporting firms
<b>Source(s):</b> Authors’ construct 2025			



## 5. Empirical results

The output from estimating Equation (1) is recorded in Table 4. The Table shows that employment creation loads negatively on political situation (POS) and concerns with the legal system (CLS) across all examined years. Also, trust in the legal system (TLS) enhances employment creation in all years, excluding 2013. The effect of the political situation on employment creation suggests that firms reduce labour size in an environment of political instability. Political instability may dissuade firms from further investments or undermine firms' productive capability, thereby constraining employment creation. The finding agrees with [Matta et al. \(2018\)](#) and [Qureshi et al. \(2010\)](#) but contravenes [Roxas et al. \(2012\)](#). The negative influence of CLS suggests that a surge in concerns about the legal system slows employment creation. Firms value a reliable legal system when making investment and expansion decisions and, thus, their ability to create employment. The CLS finding is in tandem with [Troilo and Collins \(2017\)](#) but contradicts [Roxas et al. \(2012\)](#). Also, the largely positive influence of TLS indicates that a trusted legal system yields positive employment creation dividends to an economy corroborating [Bin et al. \(2020\)](#).

The effects of POS, CLS, and TLS suggest that the quality of the legal system and political situation significantly influence EEs firms' employment creation decisions. Countries with a less dependable legal system and unstable political environment experience declining employment creation. Firms are less willing to create employment in such economies. These findings may be related to contract enforcement challenges in such countries. Increasing political instability and a less effective and unreliable legal system may increase contract enforcement costs and/or duration, undermining firms' success. However, a fair and impartial judicial system may facilitate the contract enforcement processes and guarantee the contractual rights of firms, investors and employees.

Table 4 shows that the coefficients of labour regulation (LBR) and labour efficiency (LBE) are negative for all the years we examine. The influence of labour regulation on employment creation suggests that stringent or unfair labour regulatory regimes deter firms, resulting in reduced investments and, thus, lower employment creation. Too much labour regulation may drive firms to adopt improved and less labour-intensive techniques, slowing down employment creation. Similarly, excessive or less favourable labour regulations may drive firms to rely more on temporary workers than full-time permanent workers to circumvent the regulatory regime or minimise the regulatory pressure on the firms. The evidence is consistent with [Polat and Andres \(2017\)](#).

The negative influence of labour efficiency on employment creation shows that EEs firms create less full-time permanent employment when labour efficiency increases.

This may mean that firms that optimise labour output employ less labour and may thus be able to minimise labour expenses and increase performance over time. Such firms may operate efficiently and ensure sustainable operations and survival through time. It is also possible that the LBE effect is due to employees' work ethics in emerging economies. Full-time permanent employees may be less committed and thus have lower labour productivity with consequential outcomes for firms' success and survival. Firms in EEs may employ more temporary workers to improve labour efficiency. Such an increase in labour efficiency will not improve employment creation since the employment creation variable captures permanent but not temporary employment. Firms that employ more temporary workers have higher labour productivity and contribute less to employment creation in emerging economies. The relationship between labour efficiency and employment creation seems consistent with the evidence of [Moric et al. \(2021\)](#). The LBE and LBR evidence appears consistent. The findings suggest that EEs firms may rely on temporary workers to circumvent unfavourable labour regulations and optimise labour output.

Table 4 infers that productive assets investments (IPA) and firm age (AGL) respectively enhance and constrain employment creation in EEs for all examined years. The IPA evidence indicates that firms' investment or expansionary activities improve employment creation. This may mean that successful and/or firms with growth opportunities invest more in productive

**Table 4.** Drivers of employment creation

Model	CONST	POS	CLS	TLS	LBR	LBE	AGL	IPA	DXP	DDM	DMF	DLG
<i>Panel A: 2010</i>												
1	0.0442***	−0.0224***	−0.0062*		−0.0119***	−0.0016***	−0.0010***	0.0422***				
2	0.0427***	−0.0229***		0.0012	−0.0136***	−0.0016***	−0.0010***	0.0421***				
3	0.0413***	−0.0241***	−0.0066*		−0.0115***	−0.0016***	−0.0011***	0.0416***	−0.0180***	0.0087*	−0.0091***	0.0202***
4	0.0398***	−0.0247***		0.0015	−0.0134***	−0.0016***	−0.0011***	0.0413***	−0.0179***	0.0087*	−0.0091***	0.0202***
<i>Panel B: 2013</i>												
1	0.0298***	−0.0114***	−0.0031		−0.0095**	−0.0014***	−0.0010***	0.0338***				
2	0.0310***	−0.0113***		−0.0038**	−0.0103***	−0.0014***	−0.0010***	0.0337***				
3	0.0310***	−0.0127***	−0.0019		−0.0095**	−0.0014***	−0.0011***	0.0314***	0.0030	−0.0020	−0.0010	0.0220***
4	0.0323***	−0.0125***		−0.0046**	−0.0098***	−0.0014***	−0.0011***	0.0313***	0.0032	−0.0018	−0.0010	0.0222***
<i>Panel C: 2017</i>												
1	0.0690***	−0.0268***	−0.0187***		−0.0177***	−0.0021***	−0.0014***	0.0373***				
2	0.0635***	−0.0274***		0.0180**	−0.0213***	−0.0021***	−0.0014***	0.0366***				
3	0.0864***	−0.0277***	−0.0185***		−0.0162***	−0.0021***	−0.0014***	0.0374***	−0.0139*	−0.0117	−0.0147***	0.0045
4	0.0803***	−0.0282***		0.0176**	−0.0195***	−0.0021***	−0.0014***	0.0369***	−0.0147*	−0.0110	−0.0149***	0.0043
<i>Panel D: 2019</i>												
1	0.0371***	−0.0233***	−0.0079**		−0.0027	−0.0017***	−0.0011***	0.0318***				
2	0.0305***	−0.0219***		0.0118***	−0.0075**	−0.0017***	−0.0011***	0.0323***				
3	0.0427***	−0.0230***	−0.0082***		−0.0030	−0.0017***	−0.0012***	0.0303***	0.0080**	−0.0035	−0.0067***	0.0145***
4	0.0362***	−0.0216***		0.0115***	−0.0079**	−0.0017***	−0.0012***	0.0308***	0.0082***	−0.0035	−0.0069***	0.0142***

**Note(s):** The Table records the output of estimating the equation

$$EPC_i = \alpha + \beta^1 CLS_i + \beta^2 TLS_i + \beta^3 LBR_i + \beta^4 POS_i + \beta^5 LBE_i + \beta^6 IPA_i + \beta^7 AGL_i + \beta^8 DXP_i + \beta^9 DDM_i + \beta^{10} DMF_i + 11\beta^{11} DLG_i + \varepsilon_i$$

$\alpha$  = intercept,  $\beta$  = coefficients,  $EPC$  = employment creation,  $CLS$  = concerns with the legal system,  $TLS$  = trust in the legal system,

$LBR$  = labour regulation,  $POS$  = political situation,  $LBE$  = labour efficiency,  $AGL$  = log of firm age,  $IPA$  = investment in productive assets,

$DXP$  = an indicator variable which takes 1 for exporting firms and 0 otherwise,  $DDM$  = an indicator variable which takes 1 for domestic firms and 0 otherwise,

$DMF$  = an indicator variable which takes 1 for manufacturing firms and 0 otherwise,

$DLG$  = an indicator variable which takes 1 for large firms and 0 otherwise,  $\varepsilon$  = error term.

**Source(s):** Authors' construct 2025

assets, culminating in increased employment. The IPA evidence corroborates [Szymanska and Dziwulski \(2021\)](#). The firm age effect infers that employment creation declines with firm age. That is, as EEs firms age, they create less permanent employment. This may be driven by decreased performance with age, which may also be influenced by increased competition and/or limited innovation, resulting in decreased growth opportunities for firms. The age effect seems consistent with [Banerjee and Jesenko \(2016\)](#) but contradicts the findings of [Baffour et al. \(2020\)](#).

[Table 4](#) also indicates evidence of export orientation, ownership, size and sector influences on employment creation in EEs. The findings show that exporting firms outperformed and under-performed the non-exporting firms in the 2013 and 2019 eras and the 2010 and 2017 periods, respectively. The contributions of exporting and non-exporting firms to employment creation are non-trivial, and none consistently outperforms the other. Also, [Table 4](#) shows that aside from 2010, there is no statistically meaningful variation between the contributions of foreign and domestically-owned firms to EEs employment creation. In addition, non-manufacturing firms contributed more to employment creation than manufacturing firms. The difference is statistically and economically meaningful for all years, excluding 2013. Emerging economies' over-dependence on developed economies for manufactured goods may explain the sector effect. That is, the manufacturing sector of emerging economies is less buoyant, thereby contributing less to employment creation. The high unemployment rate in EEs may thus be partly linked to the underdeveloped manufacturing sector. The sector effect is consistent with [Dachs and Peters \(2014\)](#) but contradictory to [Granada and Mejia \(2020\)](#).

[Table 4](#) also indicates a significant firm size effect in the employment creation of emerging economies. The finding infers that larger firms contribute more to employment creation than smaller firms in a statistically (excluding 2017) and economically meaningful manner. Small and medium-sized enterprises may be underdeveloped or receive limited governmental support relative to large firms. Therefore, small and medium firms may have significant untapped potential for growth and contributions to employment creation. Due to capacity constraints, labour regulations and monitoring challenges, non-large firms rely more on temporary employees than large firms. Large firms can effectively deal with labour regulatory challenges, monitor labour to ensure increased productivity, and circumvent any challenges imposed by political instability. The firm size effect supports [Matta et al. \(2018\)](#), [Roxas et al. \(2012\)](#) and [Brookes et al. \(2018\)](#). Although, some of the significant coefficients are small, they still offer useful information on the influence of the variables on employment creation. The economic impact may however, be low.

### 5.1 Methodological robustness checks

The study explored the robustness of the [Table 4](#)'s evidence to an alternative methodology by adopting a linear Bayesian estimation approach. Some studies (see, e.g. [Briggs, 2023](#); [Pek and Van Zandt, 2020](#); [Nguyen et al., 2019](#); [Kwon et al., 2016](#)) suggest frequentist approaches may provide less reliable parameter estimates. Such studies suggest adopting a non-frequentist approach to address the potential problems of the frequentist estimation technique. Therefore, we adopt a Bayesian estimation technique motivated by [Bayes \(1763\)](#) theorem of probability to robust check the frequentist results in [Table 4](#). The Bayesian approach provides an alternative view of the association between the explored variables. The technique requires the formulation of *a priori* beliefs about the relationship among the explored variables. A posterior distribution is constructed by joining these beliefs with assumptions about the likelihood of observing the given data. A challenge associated with Bayesian techniques is the subjectivity of informative priors. We adopt a non-informative prior distribution following [Kalia \(2024a,b\)](#) and [Jiang and Liu \(2020\)](#). The non-informative priors are assigned employing the normal distribution with a mean of 0. Following [Farid et al. \(2017\)](#) and [Kalia \(2024b\)](#), we adopt similar priors for each independent variable. Thus, the independent variables are allocated a prior of mean 0 and variance 0.0001, ensuring no prior information exists (see, e.g. [Farid et al.,](#)

2017; Kalia, 2024b). Additionally, the zero mean gives both the intercept and slope an equal chance to be positive or negative. The variance follows an Inverse Gamma distribution (see, e.g. Ngoc Thach, 2024; Thach, 2023; Gelman, 2006).

We rely on the Markov Chain Monte Carlo (MCMC) simulation (see, e.g. Gelman and Rubin, 1992) to examine the posterior distribution of the parameters. We draw 13,000 samples, with the initial 1,000 discarded to achieve convergence and reliable estimates.

We record the Bayesian estimation results for 2010 and 2019, respectively, in Panels A and B of Table 5. Table 5 shows the negative influence of the political situation, concerns with the legal system, labour regulations, labour efficiency, and firm age on employment creation. Additionally, investments in productive assets positively affect employment creation. These results are consistent with the frequentist evidence (Table 4). Also, corroborating the evidence in Table 4, Table 5 indicates that the large and non-manufacturing firms contribute more to employment creation than the small and manufacturing firms. Also, the contributions of exporting versus non-exporting and domestic versus foreign firms to employment creation are mixed. The frequentist and Bayesian evidence shows that the study's results are methodologically robust.

The MCMC convergence has significant implications for the reliability of the Bayesian results presented in Table 5. Non-convergence will imply biased parameter estimates and misleading statistical inference (see, e.g. Thach and Ngoc, 2023; Gupta and Goswami, 2024; Murrar et al., 2024). We thus test for the MCMC convergence using the Gelman and Rubin (1992) statistic ( $R_{hat}$ ), and the Brook and Gelman (1997) multivariate statistic ( $R_{mhat}$ ). The  $R_{mhat}$  has an advantage in that it reliably combines the univariate statistic for the parameters into a single value. The  $R_{hat}$  of each of the parameters and the  $R_{mhat}$  are all 1 which suggests convergence of the MCMC. An  $R_{hat}$  and  $R_{mhat}$  values of close to 1 signifies convergence (see, Gelman and Rubin, 1992; Brook and Gelman, 1997; Gelman et al., 2013).

## 5.2 Hypothesis evaluation

### *H1: Political uncertainty has a negative effect on employment creation*

The findings show that political instability negatively impacts employment creation. The evidence corroborates Matta et al. (2018) and Qureshi et al. (2010) but disagrees with Roxas et al. (2012). The findings are consistent with the rational decision theory and the predictions of real options theory.

### *H2: Stringent labour regulations have a mixed effect on employment creation*

The study's findings support the view that stringent labour regulations constrain investments and employment creation. The evidence agrees with Polat and Andres (2017) and supports the rational decision and the real options theories.

### *H3: Inefficient legal systems have a negative effect on employment creation*

The findings show that an efficient and reliable legal system promotes employment creation, which agrees with Bin et al. (2020) and Troilo and Collins (2017) but disagrees with Roxas et al. (2012).

## 6. Conclusions

The study investigates the ability of the legal and labour regulatory environment and political instability to explain the cross-sectional changes in employment creation in emerging economies. It controls the potential influence of productive asset investments, firm age, and labour efficiency on employment creation. Additionally, the study evaluates the potential firm size, ownership, export focus, and sector effects on employment creation in emerging economies. The Generalised Methods of Moments estimator and a Bayesian estimation

**Table 5.** Drivers of employment creation using the Bayesian estimation technique

Mode	Panel A: 2010											
	1 Posterior mean	95% confidence interval		2 Posterior mean	95% confidence interval		3 Posterior mean	95% confidence interval		4 Posterior mean	95% confidence interval	
CONST	0.0443	0.0442	0.0443	0.0427	0.0426	0.0427	0.0413	0.0412	0.0414	0.0397	0.0396	0.0398
POS	−0.0224	−0.0225	−0.0223	−0.0229	−0.0230	−0.0228	−0.0238	−0.0239	−0.0237	−0.0243	−0.0244	−0.0242
CLS	−0.0062	−0.0062	−0.0061				−0.0065	−0.0066	−0.0065			
TLS				0.0012	0.0011	0.0012				0.0014	0.0014	0.0015
LBR	−0.0120	−0.0120	−0.0119	−0.0135	−0.0136	−0.0135	−0.0113	−0.0114	−0.0113	−0.0131	−0.0132	−0.0130
LBE	−0.0016	−0.0016	−0.0016	−0.0016	−0.0016	−0.0016	−0.0016	−0.0016	−0.0016	−0.0016	−0.0016	−0.0016
AGL	−0.0010	−0.0010	−0.0010	−0.0010	−0.0010	−0.0010	−0.0011	−0.0011	−0.0011	−0.0011	−0.0011	−0.0011
IPA	0.0422	0.0422	0.0423	0.0420	0.0420	0.0421	0.0415	0.0415	0.0416	0.0413	0.0413	0.0414
DXP							−0.0182	−0.0182	−0.0181	−0.0181	−0.0182	−0.0180
DDM							0.0087	0.0087	0.0088	0.0087	0.0086	0.0087
DMF							−0.0091	−0.0091	−0.0090	−0.0091	−0.0092	−0.0091
DLG							0.0203	0.0202	0.0203	0.0202	0.0201	0.0202

  

Model	Panel D: 2019											
	1 Posterior mean	95% confidence interval		2 Posterior mean	95% confidence interval		3 Posterior mean	95% confidence interval		4 Posterior mean	95% confidence interval	
CONST	0.0371	0.0371	0.0371	0.0305	0.0305	0.0305	0.0426	0.0425	0.0427	0.0361	0.0360	0.0362
POS	−0.0233	−0.0234	−0.0233	−0.0219	−0.0220	−0.0219	−0.0230	−0.0231	−0.0229	−0.0216	−0.0216	−0.0215
CLS	−0.0079	−0.0079	−0.0078				−0.0082	−0.0083	−0.0082			
TLS				0.0118	0.0118	0.0119				0.0115	0.0115	0.0115
LBR	−0.0027	−0.0027	−0.0026	−0.0073	−0.0074	−0.0073	−0.0030	−0.0031	−0.0030	−0.0078	−0.0079	−0.0078
LBE	−0.0017	−0.0017	−0.0017	−0.0017	−0.0017	−0.0017	−0.0017	−0.0017	−0.0017	−0.0017	−0.0017	−0.0017
AGL	−0.0011	−0.0011	−0.0011	−0.0011	−0.0011	−0.0011	−0.0012	−0.0012	−0.0012	−0.0012	−0.0012	−0.0012
IPA	0.0318	0.0317	0.0318	0.0324	0.0323	0.0324	0.0303	0.0302	0.0303	0.0308	0.0308	0.0309
DXP							0.0080	0.0079	0.0080	0.0083	0.0082	0.0083
DDM							−0.0035	−0.0035	−0.0034	−0.0034	−0.0035	−0.0033
DMF							−0.0067	−0.0067	−0.0067	−0.0069	−0.0069	−0.0068
DLG							0.0144	0.0144	0.0145	0.0141	0.0141	0.0142

**Note(s):** The Table presents the results of the Bayesian estimation of the model:

$$EPC_i = \alpha + \beta^1 CLS_i + \beta^2 TLS_i + \beta^3 LBR_i + \beta^4 POS_i + \beta^5 LBE_i + \beta^6 IPA_i + \beta^7 AGL_i + \beta^8 DXP_i + \beta^9 DDM_i + \beta^{10} DMF_i + 11\beta DLG_i + \varepsilon_i$$

**Source(s):** Authors' construct 2025

technique are employed in the study. The findings from the GMM and the Bayesian techniques are consistent. The findings from the study provide useful theoretical and policy insights into employment creation and support the rational decision and real options theories. The study shows that political uncertainty, concerns with the legal system, labour regulation challenges, labour efficiency and firm age constrain employment creation, but trust in the legal system and investments in productive assets improve employment creation. Employment creation decreases as concerns about political instability, labour regulations and the legal system increase. Also, an increase in firm age and growth in labour productivity minimises employment creation. Given that the employment creation proxy measures growth in permanent employment, it could be inferred from the labour efficiency findings that firms with significant permanent employees have lower labour efficiency levels. EEs firms that optimise labour productivity growth may rely primarily on temporary workers. In addition, the findings indicate that employment creation increases with investments.

The study provides evidence of firm size, export focus, ownership and sector effects in the employment creation of emerging economies. The evidence indicates that exporting and non-exporting firms' contributions to employment creation are significant and that none consistently outperforms the other. Also, foreign firms' contributions to employment creation are within domestic firms' contributions. Also, the non-manufacturing firms contribute more to employment creation than their manufacturing counterparts. The evidence additionally indicates that large firms create more employment than non-large firms.

The findings of the study have policy implications. The evidence suggests that firms in emerging economies value quality judicial systems, stable political settings, and favourable labour regulation systems and consider their impacts when making employment creation decisions. Improvement in the political situation, labour regulations, and the court system will go a long way to creating an attractive business environment and contributing meaningfully to employment creation in emerging economies. The findings suggest that one of the surest ways for emerging markets to improve employment creation is through increased investments and expansion of existing firms. Thus, policymakers should focus on attracting new investments and address existing firms' challenges and, more importantly, obstacles to their investments and expansionary activities. The evidence indicates that export and non-export-oriented firms are equally crucial to employment creation in emerging economies. Therefore, policies aimed at increasing employment should focus on both export categories. Improvements in the performance of the exporting and non-exporting firms will create employment in emerging economies. Further, foreign firms only impact employment creation as domestic firms. Therefore, employment policies should not overly focus on attracting foreign investments but should create a conducive environment for the growth and development of domestic firms. Employment policies should also consolidate and improve the non-manufacturing sectors to sustain their contribution to employment creation. In addition, policy should address challenges in the manufacturing sector to enable the sector to contribute more meaningfully to employment creation.

The time series dimensions of the data are limited. As a result, the study adopted yearly cross-sectional regressions. However, employment creation may have both time-series and cross-sectional variability. Therefore, future research may employ models that capture both the time series and cross-sectional variability of employment creation as adequate time series data becomes available. Also, future research may explore the connection between employee tenure security and labour productivity growth.

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