

Institutional Shocks Transmission and Impact on Entrepreneurship Development in Developing Economies

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Abstract

Entrepreneurship constitutes a major pathway through which developing economies pursue economic expansion and social transformation. This study investigates how institutional disturbances are transmitted across economies and how such disturbances influence self-employment and entrepreneurship development. Panel data drawn from twenty developing countries covering the period 1996–2022 are analysed using a Panel Vector Autoregression (PVAR) framework. The Generalized Forecast Error Variance Decomposition (GFEVD) and Impulse Response Functions (IRFs) are employed to trace the dynamic effects of institutional shocks on entrepreneurial outcomes. Self-employment is adopted as a proxy for entrepreneurship, alongside entrepreneurial finance, regulatory quality, government expenditure, education, and control of corruption. The findings indicate that institutional shocks generate heterogeneous short-run and long-run effects on entrepreneurship, with access to finance emerging as the most influential external driver over time. The results further suggest that entrepreneurial outcomes in emerging economies are affected not only by market forces but also by the stability and effectiveness of institutional arrangements. These findings underline the importance of institutional reforms that strengthen governance structures and reduce uncertainty in order to promote sustainable entrepreneurship.

Keywords: *Developing Economies, Entrepreneurship, Impulse Response, Institutional shocks, Transmission PVAR.*

Introduction

Entrepreneurship has long been regarded as a central mechanism through which economies stimulate innovation, generate employment, and enhance productivity, therefore earning entrepreneur the label "the engine of economic growth" [17]. In developing economies, entrepreneurial activity plays an especially critical role because formal employment opportunities remain limited and small businesses often serve as primary sources of income and economic participation. The prevailing view positions entrepreneurship as a catalyst for sustained development [10]. But the irony here is that the operating environment for

entrepreneurial activities is dynamic and susceptible to shocks. This same institutional conditions shape the incentives, risks, and opportunities that entrepreneurs face.

Sudden changes in political arrangements, regulatory frameworks, or governance structures can alter business expectations and investment decisions. Such institutional disturbances we referred to in this study as institutional shocks. It can disrupt existing economic relationships and modify the environment in which entrepreneurial activity takes place. In some cases, these shocks constrain business formation by increasing uncertainty and transaction costs; in other

cases, they may open new opportunities by reshaping market structures.

This paper advances the main argument that it is not entrepreneurship alone, but the transmission of institutional shocks drives major changes in formal and informal structures that critically shape entrepreneurial outcomes in developing economies [1], most especially self-employed entrepreneurs.

The quality of the institutional environment can either facilitate or hinder entrepreneurship [14]. In many developing economies, institutional systems remain fragile and unevenly enforced. Entrepreneurs therefore operate within environments characterized by regulatory instability, weak governance, and limited access to formal financial institutions. These features amplify the potential impact of institutional shocks on business decisions, particularly for self-employed individuals and micro-enterprises that lack buffers against uncertainty. Despite the relevance of these dynamics, empirical evidence on how institutional shocks are transmitted and how they affect entrepreneurship over time remains limited, especially in cross-country contexts.

This study addresses this gap by examining the transmission of institutional shocks and their implications for entrepreneurship development in developing economies. By employing a dynamic panel modelling approach, the study traces how changes in institutional factors propagate through economic systems and influence entrepreneurial outcomes. Understanding these relationships is essential for policymakers aiming to build institutional frameworks that promote productive entrepreneurship while minimizing the adverse effects of institutional instability.

Literature Review

Institutional Shocks

Institutional shocks refer to abrupt changes in political, regulatory, or governance structures that modify the conditions under

which economic agents operate. Such shocks may arise from political crises, policy reforms, social unrest, or global economic disturbances. These changes affect the predictability of rules and the enforcement of contracts, thereby shaping entrepreneurial incentives and constraints. The transmission of institutional shocks occurs through multiple channels, including regulatory adjustments, shifts in public trust, and changes in resource allocation. The transmission of the shock can influence how businesses respond and adapt to these new realities [30, 31]. Understanding this phenomenon in the context of developing economies helps clarify how institutions influence entrepreneurial activities.

Nature of Institutional Shocks

Institutional shocks can broadly be distinguished between exogenous and endogenous (external and internally) generated disturbances. Exogenous shocks include natural disasters and global crises that disrupt domestic institutions, while Endogenous shocks originate from policy reforms or governance transformations within a country. Both forms can influence entrepreneurial behaviour by altering regulatory compliance costs, market entry conditions, and access to finance. In developing economies, where institutional systems are often less resilient, such shocks may exert particularly strong effects on business activity [15, 36].

Transmission Mechanisms

Institutional shocks influence entrepreneurship through several pathways. First, regulatory changes modify the formal rules governing business operations, which can raise or lower the cost of market entry and compliance [13]. Second, institutional shifts affect access to productive resources, including finance and skilled labour, thereby shaping entrepreneurial capacity [3]. Third, changes in institutional credibility alter risk perceptions and expectations, influencing entrepreneurs'

willingness to invest and innovate [19]. Cultural and social norms also mediate how institutional changes are interpreted and responded to by economic actors [6]. How these shocks affect entrepreneurial activity, resilience, and development are documented in empirical studies [4].

Moderating Factors

The impact of institutional shocks is conditioned by structural and social factors such as income levels, legal quality, and social capital. Countries with stronger judicial systems and clearer regulatory enforcement are more likely to absorb institutional disturbances without severe disruptions to entrepreneurial activity [16]. Informal networks and trust-based relationships may further cushion entrepreneurs against institutional volatility by providing alternative mechanisms for coordination and resource mobilization [34].

Empirical Evidence

Empirical research indicates that political instability and regulatory uncertainty discourage private investment and entrepreneurial entry [8]. Sudden shifts in macroeconomic policy and exchange rates have been shown to increase operating costs and reduce consumer demand, thereby weakening business sustainability [2]. Infrastructure disruptions, particularly in electricity and transportation systems, also impose significant burdens on enterprises by increasing production costs and reducing productivity [18]. Trade policy fluctuations further affect firms engaged in cross-border commerce [12]. Climate-related shocks present additional challenges in agriculture-dependent economies, where livelihoods and entrepreneurial ventures are closely tied to environmental conditions [27, 28].

Collectively, these studies highlight the need for institutional environments that provide stability, transparency, and credible

enforcement mechanisms in order to support entrepreneurial resilience in the face of shocks.

Theoretical Perspectives on Transmission Mechanism

The institutional framework fundamentally influences the dynamic of entrepreneurship in developing economies. In Africa "Institutional voids" show that there are not enough formal institutions to support the market. This makes things unpredictable and pushes businesses to rely on informal networks or come up with workarounds [33]. Entrepreneurs typically act as "micro institutional agents," influencing their surroundings on their own instead than waiting for reforms from the top down [9, 39]. The severity of institutional shocks can compel entrepreneurs to amalgamate business and social objectives, thereby promoting resilience and innovation [9].

The theoretical perspectives on institutional shocks, their transmission mechanisms, and their implications can be better understood via the prism of Diffusion of Innovation Theory (DIT), Resource-Based Theory (RBT), and Social Capital Theory (SCT).

1. The Diffusion of Innovation Theory (DIT):

The diffusion of innovations theory posits that novel ideas, technologies, and practices propagate through social networks, impacting entrepreneurial activities [37]. The aforementioned theory is especially pertinent in the setting of developing economies, when access to resources and information may be constrained. The adoption of innovations can serve as a coping strategy for entrepreneurs confronting institutional disruptions, enabling them to manage uncertainties and capitalize on emerging new opportunities.

2. Resource-Based Theory (RBT):

Furthermore, the resource-based view underscore the significant of access to resources in alleviating the adverse impact of institutional shocks [11]. Resources can

be tangible or intangible, including financial capital, human capital, social networks, and intellectual property. In the context of entrepreneurship, RBT emphasizes the importance of resource acquisition and management in fostering innovation and growth [5].

3. Social Capital Theory (RBT):

Finally, the social capital theory has become increasingly significant in understanding entrepreneurship development, particularly during periods of institutional transformation. This approach underscores the significance of social networks, relationships, and trust in facilitating economic activities and business growth [34, 35]. In times of institutional flux, social capital can play a crucial role in helping entrepreneurs navigate uncertain environments, access vital resources, and build legitimacy [38].

The Significant Impact of Entrepreneurship Development on Developing Economies

A systematic assessment indicates that entrepreneurship influence economic, social, and environmental welfare, especially in low-income economies relative to high-income ones [29]. The role and impact of entrepreneurship are further revealed in the following. Create jobs, which helps to lower unemployment rates [22, 24, 25, 40]; Poverty Reduction and Social Impact [20, 23, 26]. Entrepreneurship enhances gross national product and per capita income, especially in developing nations grappling with rising poverty and unemployment.

Innovation and Technological Advancement: Entrepreneurship drives innovation, leading to the development of new products and services that can improve the quality of life [7, 32, 41].

In summary, entrepreneurship acts as a catalyst for economic growth in underdeveloped nations by fostering innovation, generating employment, and

enhancing competitiveness. To optimize its advantages, it is imperative to strengthen institutional frameworks and provide inclusive support to all entrepreneurs to fully actualize their potential in fostering to economic growth.

Methodology

Research Design

This research employs a quantitative design utilizing secondary panel data from a selection of developing economies. The analytical strategy combines dynamic econometric techniques in order to capture both short-run adjustments and long-run interactions between institutional variables and entrepreneurship development. A sample of twenty developing nations is chosen from Africa, Europe, Asia, North America (including Central America and the Caribbean), South America, and Oceania to guarantee geographical diversity and heterogeneity in institutional frameworks.

Data Collection

The dataset consists of annual observations covering the period 1996–2022. Data are sourced from esteemed internationally entities, such as the World Development Indicators (WDI) and the Global Entrepreneurship Monitor (GEM) database, supplemented by statistics from national agencies as required. The time span is chosen to incorporate major global and regional disturbances, including financial crises, technological transformation era, and the COVID-19 pandemic, thereby allowing the analysis to capture institutional shock dynamics across different historical episodes.

Data Availability and Limitations

Most variables are sourced from publicly accessible international databases like the World Bank, the International Monetary Fund, the National Bureau of Statistics and Global Entrepreneurship Monitor. These data are accessible without restriction. However, limitations arise from incomplete national

coverage and the scarcity of reliable measures of informal entrepreneurship. These constraints may affect the representativeness of entrepreneurial activity in economies where informal business dominates.

Ethical Considerations

The research depends solely on secondary data sourced from publicly accessible, internationally recognized databases. Consequently, in alignment with established research ethics protocols, this category of study is exempt from comprehensive ethical evaluation. The study complies with established research ethics by guaranteeing transparency in data sources, precise citation of original materials, and accurate depiction of empirical findings. No manipulation or selective reporting of results is conducted, and the limits of the data are fully recognized.

Author's Contribution

The contribution from this study can be examined from two perspectives: (i) theoretical and (ii) policy-oriented suggestions. The study's theoretical contribution enhances and extends institutional theory through dynamic shock analysis, while the policy-oriented contribution offers evidence for fostering institutional resilience, gives direction and a framework for mitigating entrepreneurial risk and uncertainty.

Funding

The research work was self-funded. Due to the politically sensitive nature of institutional governance metrics, independent funding guaranteed neutrality and reduced perceived political interference. The author executed this investigation autonomously, devoid of institutional or commercial financial support. This guaranteed full independence (flexibility and autonomy) in research design, gathering data, analysis, interpretation, and publication writing. This has facilitated the elimination of potential bias that may be created by sponsors.

Data Analysis

The research utilized econometric techniques to examine the propagation of institutional shocks. This allowed us to identify various forms of asymmetries in the transmission processes, considering the characteristics of the data. Also, to make it possible for the research work to find interdependencies between several variables, the Panel Structural Vector Autoregression (P-SVAR) Model was used and then expanded to vector error correction models (VECM) to show the difference between short-run and long-run asymmetries by adding cointegration relationships.

Structural Form:

$$FY_t = C_0 + B_1Y\{t - 1\} + B_2Y\{t - 2\} + \dots + B_pY\{t - p\} + \pi_i X_t + Z\varepsilon_t \dots \dots \dots 1$$

Where;

F = an invertible matrix describing the contemporaneous relationship among the variables.

Y_t = vector of endogenous variables such that ($Y_t = Y_{1t}, Y_{2t}, \dots \dots Y_{nt}$).

C_0 = vector of constants.

B_i = coefficients of lagged endogenous variables (for every $i = 1 \dots p$).

π_i and X_t = coefficient and vector of the exogenous variable, expressing external shock.

Z = matrix whose non-zero off-diagonal elements permit direct effects of some shocks on greater than one endogenous variable in the system and

ε_t = uncorrelated vector of error terms (white-noise structural disturbances).

Reduced Form:

$$Y_t = B(L)Y_t + C(L)X_t + \mu_t \dots \dots \dots 2$$

Where:

$$Y_t = [EF, IRQ, GE, EDU, CUL, SELF - EMP] \dots \dots \dots 3$$

(endogenous variables)

Where

Y_t are domestic variables

$$X_t = [FDI] \dots \dots \dots 4$$

(exogenous variable representing globalization)

$B(L)$ = matrix polynomial lag operator

μ_t = vector of random disturbances

The study's internal (endogenous) variables for developing economies are represented by equation (3), while the exogenous variable vector that accounts for external shock is represented by equation (4). Equation (3) thus identifies the structural shocks.

This model captures contemporaneous relationships among variables and external shocks' effects on entrepreneurial development. The Impulse response functions of Panel Vector Autoregression (PVAR) and General Forecast Error Variance Decomposition (GFEVD) will be employed to ascertain the sign, amplitude, and persistence of shocks from each institution on the advancement of entrepreneurship [21].

Results and Discussion of Findings

This section delineates the findings of analyses undertaken to examine the degree of shock transmission from institutional changes to entrepreneurial development in the selected developing nations. Impulse response function estimations are illustrated graphically, whereas generalized forecast error variance decomposition results are displayed in tabular form.

Impulse Response Function of Panel Vector Autoregression

The analysis of the impulse response function pertains to monitoring the responses of institutional changes on entrepreneurship development in the chosen developing countries for the relevant variables. The Vector Autoregressive model was estimated using the following endogenous variables: the response of self-employed workers to Entrepreneurial Finance, Institutional Regulatory Quality, Government Expenditure, Education, and Control of Corruption (culture).

This study seeks to evaluate the impact of institutional shocks on Entrepreneurship

Development (ED), as measured by the quantity of self-employed individuals, in conjunction with other endogenous variables.

Figure 1. depicts the response of self-employment to institutional variables' shocks. Figure 1A illustrates that access to entrepreneurial funding does not have a major effect on self-employment at initially. It's likely because of structural and institutional hurdles that make it hard to swiftly deploy money for company. Over time, increased access to money makes it easier to start and maintain a business. This leads to a slow but steady rise in the number of people who work for themselves. This long answer indicates that it takes time for financial assistance programs to help entrepreneurs in a serious way. This could be due of red tape, the long time it takes for a business to get off the ground, or how well entrepreneurs plan how to spend their money. The peak effect of 0.022% above the steady state illustrates that having easier access to money is a big aid for self-employment, which makes it easier for more people to establish their own enterprises. The gradual decline following the peak suggests that the consequences of financial shocks don't last long. This indicates that the surge in self-employment may not endure if people don't have access to money or more insurance. This could be because the market is too saturated, it's hard for enterprises to stay open, or people aren't spending their money sensibly.

However, the finding in Figure 1B shows that better regulation quality first causes a little decline in self-employment, bringing it down by 0.008% below the steady state. The negative effect means that changes to regulations may make it tougher to establish a firm in the near term, even while they are good for the economy as a whole. This might be because it is harder to register a business, there is more paperwork to fill out, or the regulations are enforced, which makes it more expensive to run a firm. The effect, nevertheless, gets weaker over the third period. This shows that the initial negative

effect of regulatory changes is just temporary, and self-employment numbers will stabilize over time.

Also, the data in Figure 1C shows that when the government spends more money, it first increases self-employment by 0.005% over the steady state. This good effect illustrates that when the government spends money on things like infrastructure, social services, and programs that help entrepreneurs, it makes it simpler for people to start their own firms. The effect gets stronger over time, reaching a peak of 0.009% in the eighth period and then slowly getting weaker. This implies that while government expenditure may temporarily encourage self-employment, its impact is not lasting, perhaps due to inefficiencies in resource allocation or diminishing returns on public investment.

The results shown in Figure 1D indicates that acquiring additional education currently benefit individuals aspiring to start their own enterprises by 0.007% above the steady state. This means that improved education, especially in basic and vocational training, gives people the skills, information, and talents they need to start and run enterprises better. But the influence slowly fades away and is no longer important by the fourth period. This shows that education may help people start their own businesses in the near term, but things like access to funding, market conditions, and laws that support entrepreneurs are more important for keeping businesses going over time.

Once more, the graphical data in Figure 1E shows that cultural factors don't have an immediate effect on self-employment. This means that cultural norms that form entrepreneurial behaviors and attitudes need time to affect how a business runs. The lack of an immediate effect suggests that changes in cultural attitudes toward entrepreneurship, such

as views on risk-taking, inventiveness, and business ownership, do not quickly result in increased self-employment rates. But when these cultural shifts become more permanent, they slowly make things better for entrepreneurs, which raises the level of self-employment. The tenth decade demonstrates that 0.001% has the biggest influence. This shows that cultural changes take a long time to materialize, but when they occur, they can have a huge effect on self-employment. The effect starts to wear off after this peak. This implies that cultural factors alone may be insufficient to sustain the progression of self-employment over time in the absence of additional economic and institutional support.

Panel VAR Generalized Forecast Error Variance Decomposition

Furthermore, Table 1 displays the outcome of the generalized forecast error variance decomposition. Further demonstrates a more profound understanding of the effects of these shocks on self-employment. It can be inferred that self-employment itself accounts for 99% of its variation in the short term (Period 1), indicating that its fluctuations are primarily self-driven, with minimal influence from external factors. Nevertheless, the contribution of self-employment gradually decreases to 88.2% by Period 25, indicating that other variables increasingly account for changes in self-employment over the long term. Entrepreneurial finance is the most influential factor among the external shocks, with its contribution increasing from 0.02% in Period 1 to 8.61% in Period 25. This implies that access to finance is a critical factor in the long-term determination of self-employment, underscoring the significance of financial institutions in fostering entrepreneurship.

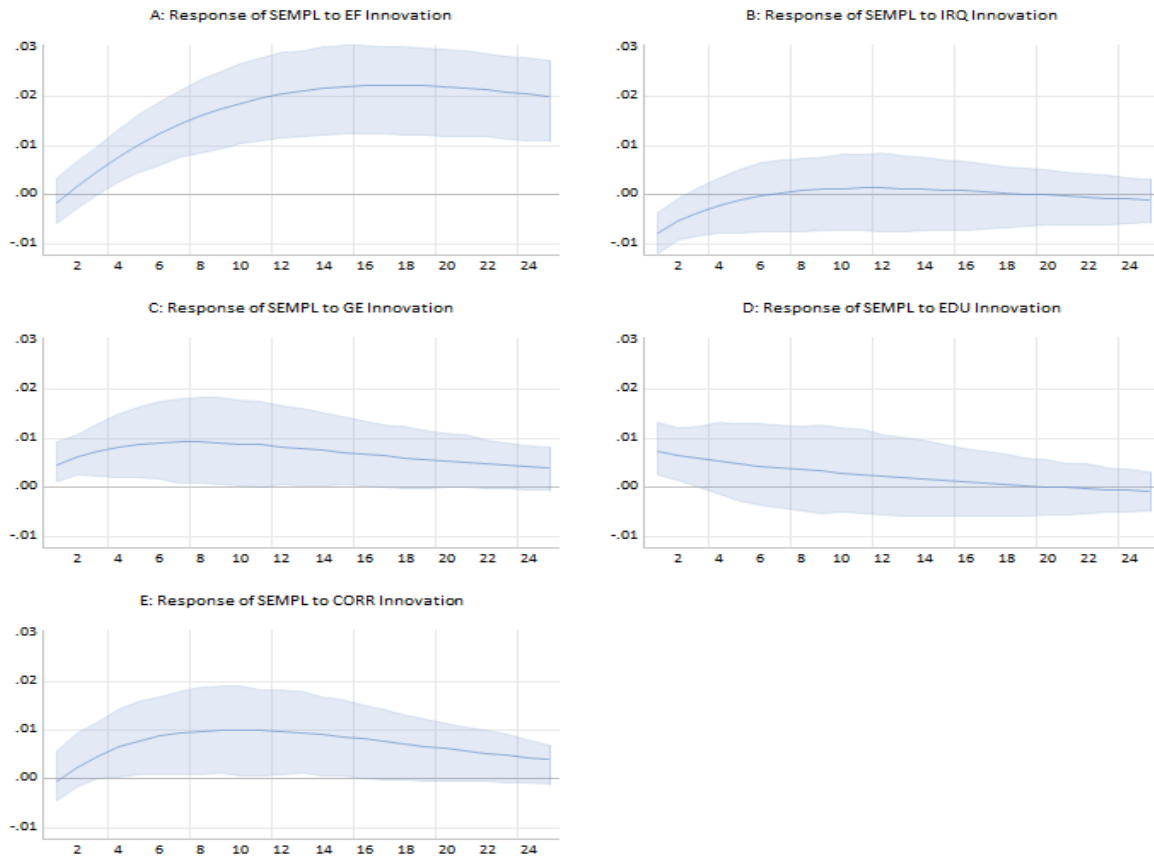


Figure 1. Response of Self-Employment to Institutional Variables' Shocks.

Graphical Representation of Impulse Response function: Graph A: Response of self-employment to Entrepreneurial Finance innovation, Graph B: Response of self-employment to Institutional Requirement quality Innovation, Graph C: Response of self-employment to Government Expenditure innovation, Graph D: Response of self-employment to Education innovation, Graph E: Response of self-employment to Corruption (Source: Authors computation, (2026))

Culture also plays a growing role, albeit at a slower pace, with its impact increasing from 0% in Period 1 to 1.48% in Period 25. This gradual increase suggests that cultural shifts toward entrepreneurship require time to manifest, but they ultimately contribute to the dynamics of self-employment.

In the initial period, government expenditure exhibited a similar pattern, with its influence increasing from 0.16% to 1.33% by Period 25, indicating that public spending through investment in infrastructure, social programs, and business support plays a supporting role in shaping self-employment over time. Conversely, the impact of basic education is relatively consistent but diminishing, commencing at 0.40% in Period 1 and

subsequently decreasing to 0.28% in Period 25. This suggests that education initially enhances self-employment; however, its long-term impact is diminished. This may be attributed to the preference of educated individuals for wage employment or structural constraints that restrict entrepreneurial opportunities.

Finally, institutional regulatory quality has the least significant and decreasing impact, decreasing from 0.45% in Period 1 to 0.13% in Period 25. This suggests that regulatory enhancements have a limited long-term impact on self-employment, potentially due to bureaucratic inefficiencies, slow policy implementation, or the persistence of informal economic activities despite regulatory changes.

Table 1. Generalised Forecast Error Variance Decomposition (%) of Self-Employment

Shock variable	Period								
	1	2	3	8	9	10	14	23	25
Culture	0.00	0.02	0.08	0.58	0.68	0.78	1.12	1.46	1.48
Basic Education	0.40	0.39	0.37	0.33	0.33	0.33	0.31	0.29	0.28
Entrepreneurial finance	0.02	0.02	0.09	1.19	1.54	1.93	3.71	7.85	8.61
Self-employment	99.0	99.0	98.8	97.0	96.5	95.9	93.6	89.0	88.2
Government expenditure	0.16	0.24	0.33	0.75	0.82	0.89	1.09	1.31	1.33
Institutional Regulatory Quality	0.45	0.35	0.29	0.16	0.15	0.15	0.14	0.13	0.13

Source: Authors computation, (2025)

Conclusion

Institutional shocks in developing economies can both hinder and catalyze entrepreneurship, depending on the resilience of formal and informal institutions and the adaptability of entrepreneurs. Strengthening institutional quality, reducing the culture of corruption, and leveraging informal networks are key to fostering productive entrepreneurship and economic growth in these contexts. This paper enhances the comprehension of the correlation between institutional shocks and entrepreneurial development in developing economies. The study employs PVAR and GFEVD methodologies to demonstrate the substantial influence of institutional factors on entrepreneurial activities. The findings underscore the imperatives for policymakers to prioritize institutional enhancement to cultivate an environment conducive to

entrepreneurship, ultimately driving economic growth and development.

Conflict of Interest

The publication of this manuscript was conducted independently, with all efforts made to maintain the integrity and objectivity of the findings presented. The outcome of the research were not influenced by political, personal, or financial incentives. Consequently, the author discloses no known conflicts of interest pertaining to the article.

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