



Basis and Practices of Restorative Justice: The Case of the Ethiopian Criminal Justice System

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Abstract: This study aims to explore the role of instrumental freedoms in enhancing human capabilities and the process of human development. Specifically, it examines the effects of political freedoms, economic facilities, transparency guarantees, social opportunities, and protective security on health, education, housing, employment, and communication and mobility capabilities. The study employs a hierarchical structural model using the partial least squares approach and the repeated indicator method. It analyzes data from sixty countries to assess the impact of instrumental freedoms on capabilities, considering both interconnectedness of freedoms and the moderating effect of economic development levels. The study reveals three major findings: 1) Instrumental freedoms significantly affect the selected capabilities. 2) When interconnected, these freedoms reinforce each other, amplifying their impact on human capabilities. 3) Multi-group analysis indicates that instrumental freedoms positively and significantly influence capabilities in both developed and developing countries. Freedom plays both a constitutive and instrumental role in the development process. The interconnectedness of instrumental freedoms enhances their effectiveness in promoting human capabilities. Public policies should be designed to empower individuals by improving at least three essential freedoms: political freedoms, economic facilities, and transparency guarantees. This approach is crucial to enabling people to live according to their aspirations and to furthering human development.

Keywords: Capability approach, Instrumental freedoms, Human development, Partial least squares approach

1. Introduction

Development is better achieved when individuals enjoy more freedoms (Sen, 2009). These freedoms, when interconnected, reinforce each other and become the driving force of human development (Sen, 1999b). Amartya Sen, a prominent economist, and philosopher, argues that the interconnection between political freedoms, economic facilities, social opportunities, transparency guarantees, and protective security directly promotes human capabilities (Sen, 1999b). For example, in countries like Japan, the interconnection of these instrumental freedoms creates a conducive framework for development.

Sen's thesis challenges traditional notions that a country's wealth or economic growth rate alone determines the well-being of its population. Instead, he posits that poverty should be viewed as a deficit of essential human capabilities and that the inequitable distribution of these real freedoms is the source of inter- and intra-national inequalities in human development (Aguenane, 2020). This perspective shifts the focus from purely economic measures to a more holistic view of development, incorporating ethical reflections into economic analysis (Aguenane, 2019c).

The capability approach advocated by Sen emphasizes the importance of evaluating the development of social states beyond primary goods, utility, or other resources (Sen, 1992). Key aspects of this assessment include:

- **Functioning:** Achievements of a person, such as having a decent income, living in good health, and attaining a good level of education. These functions reflect a part of the 'state' of that person and their well-being (Aguenane, 2019b).
- **Capability:** The substantive freedom to achieve alternative functioning combinations, or various lifestyles, which indicates that an individual can lead the life they value (Ayalew, 2019).

Sen's framework considers freedom both as a goal and a means of human development, contrasting with the utilitarian system based on monetary standards, which neglects this central place of freedom in the development process (Aguenane, 2019a). In his influential book *Development as Freedom*, Sen outlines five instrumental freedoms that contribute to a person's overall capability:

- **Political Freedoms:** These encompass civil rights (e.g., the right to elect, control, and criticize those who govern) and political rights (e.g., democratic dialogue, the right to opposition, and the right to select legislative institutions).

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- **Economic Facilities:** These refer to the various opportunities offered to the population to appropriate economic resources, including access to financing, investment, consumption, and exchange (Alkir, 2010). Economic facilities ensure that the nation's wealth translates into individual wealth.
- **Transparency Guarantees:** Transparency guarantees protect society from illicit practices such as corruption and abuse of power, creating a climate of trust and clarity. Sen argues that these guarantees play a decisive instrumental role in fostering development.
- **Social Opportunities:** These opportunities enable people to benefit from basic services such as education, health, and housing. They promote the "social effectiveness" of individuals and social cohesion by eliminating sources of social exclusion such as illiteracy, avoidable morbidity, and premature mortality.
- **Protective Security:** This includes institutional arrangements for the poor, such as unemployment benefits and exceptional social protections, to intervene effectively in crises, disasters, and the spread of deadly epidemics and viruses.

This article empirically verifies Sen's theoretical statements by examining the interconnections between these instrumental freedoms and their collective impact on human development. The goal is to provide a nuanced understanding of how freedoms can serve as both the means and ends of development, thereby offering insights into policy-making that prioritizes human capabilities alongside economic growth.

2. Literature Review

Amartya Sen's capability approach has significantly influenced the understanding of human development. His theory argues that development should be evaluated based on the capabilities and freedoms individuals enjoy, rather than solely on economic growth (Sen, 1999). This section reviews key studies and theories that have expanded on Sen's ideas, particularly focusing on the interconnections between instrumental freedoms and human capabilities.

Sen (1999) identifies five types of instrumental freedoms: political freedoms, economic facilities, social opportunities, transparency guarantees, and protective security. These freedoms, he argues, are not only ends in themselves but also means to achieving development. Political freedoms, for instance, allow individuals to participate in political processes, enhancing their ability to influence decisions that affect their lives. Economic facilities enable individuals to access resources necessary for their well-being, while social opportunities (such as education and healthcare) improve individuals' capabilities to lead fulfilling lives. Transparency guarantees ensure that individuals can trust the systems they interact with, and protective security provides a safety net for the most vulnerable.

Empirical studies have supported Sen's theory by demonstrating the significant impact of these freedoms on human development. Alkire (2002) emphasizes that freedom, as a multidimensional concept, is crucial for evaluating development. Her studies show that political freedoms and civil liberties significantly contribute to improvements in health and education. Similarly, Drèze and Sen (2002) highlight that states with higher political participation and civil liberties tend to have better social indicators, such as lower infant mortality rates and higher literacy rates.

Political freedoms are essential for human development as they allow individuals to participate in decision-making processes. Research by Freedom House (2020) indicates that countries with higher political freedoms tend to have better human development outcomes. The ability to elect representatives, express opinions, and access information empowers citizens and fosters a more inclusive development process. In this context, political freedoms serve both as a means to and an end of development.

Economic facilities, such as access to credit, fair trade practices, and investment opportunities, are critical for enhancing individuals' capabilities. Studies by the World Bank (2018) show that economic policies promoting trade freedom and financial inclusion correlate with higher levels of education and health. Economic freedom allows individuals to make choices that improve their quality of life and expand their capabilities.

Transparency and the rule of law are foundational for building trust in institutions. Research by Kaufmann, Kraay, and Mastruzzi (2010) demonstrates that governance indicators, including control of corruption and government effectiveness, are strongly linked to human development indices. Transparency ensures that resources are used effectively and that citizens can hold authorities accountable, which in turn promotes social and economic development.

The interconnection between these freedoms amplifies their impact on human development. For instance, the synergy between political freedoms and economic facilities can create a more conducive environment for development. Studies by Narayan et al. (2000) show that communities with strong political engagement and economic opportunities exhibit higher levels of collective action and social capital, leading to better development outcomes. This interconnection also helps in addressing inequalities and ensuring that development benefits reach all sections of society.

While the capability approach has been widely praised, it also faces critiques. Some scholars argue that the approach is too broad and lacks specific guidelines for implementation (Robeyns, 2005). Others question the

feasibility of measuring capabilities and freedoms accurately. However, advancements in social indicators and composite indices have improved the measurement of these concepts, making the capability approach more practical for policy applications.

3. Methodology

3.1. Operationalization of Hierarchical Structural Model Variables

3.1.1. Endogenous Latent Variables: Capabilities As Dimensions Of Human Development

Selecting capabilities or functions is not an end in itself; it must be based on a set of criteria to balance theoretical ambitions and empirical constraints (Robeyns, 2005; Alkire, 2013; Sen, 1992). This model combines five fundamental dimensions of human development: health, education, shelter, employment, and mobility and communication. These capabilities are latent, unobservable, and endogenous in our model. However, functionings, which are achievements in each dimension, are observable and measurable through statistical indicators. While only one indicator can be used, it is more appropriate to use a set of available indicators to measure performance in each dimension (Krishnakumar, 2007; Bhatti & Akram, 2020; Choudhury, 2019).

In education, three indicators are proposed: the gross enrollment ratio (Enrolment), the adult literacy rate (Literacy), and the average years of total schooling (Schooling). For health, three indicators are selected: healthy life expectancy at birth (Expectancy), survival to age 65 (Survival), and disability-adjusted life expectancy (Disability). Employment is assessed by three indicators: the employment-to-population ratio (Employment), the labor force participation rate (Laborforce), and the female labour force participation rate (Femalabor). In housing, two indicators are chosen: access to electricity (Electricity) and access to an improved water source (Water). Lastly, in mobility and communication, three indicators are selected: the number of fixed telephone subscriptions (Telephone), the number of internet users (Internet), and the average pump price for gasoline (Gasoline).

These latent variables reflect the national level attained in each human development dimension. To have an overall view of development, the model introduces a second-order construct formed from the five selected dimensions, named “generic capability” (Figure 1).

3.1.2. Exogenous Latent Variables: Instrumental Freedoms

Three of the five instrumental freedoms are retained in the model: political freedoms, economic facilities, and transparency guarantees. To measure the “political freedoms” latent variable, four statistical indicators are proposed: the plurality and quality of the electoral process (Plurality), the level of political participation (Participation), democratic culture (Democulture), and civil liberties (Civil liberties). For the “economic facilities” construct, the indicators of economic freedom are suggested: the degree of freedom of trade (Trade), financial freedom (Finance), monetary freedom (Currency), and freedom to invest (Investment). To assess the “transparency guarantees” construct, the following governance indicators are selected: control of corruption (Corruption), authority of the law (Lawauthority), quality of regulation (Regulation), and government effectiveness (Effectiveness). These three categories of freedoms constitute the exogenous second-order variable “instrumental freedoms” (Figure 1).

3.2. Estimation Method

The framework taken in this paper is based on structural equation models (SEM). For estimating the model, the partial least squares (PLS) approach is used. This choice is explained by several reasons: its statistical flexibility that does not require strict statistical conditions on model variables, its compatibility with small samples (Lacroux, 2009), its adaptability with often imperfect and overly correlated data (Sosik, Kahai & Piovoso, 2009; Jakobowicz, 2007), and its ability to calculate scores of latent variables to predict their levels and evaluate structural relationships between them.

According to Chin (1998) and Law et al. (1998) (as quoted in Becker, Klein & Wetzels, 2012), hierarchical latent models or higher-order constructs are an explicit representation of multidimensional concepts with a high level of abstraction. However, the classical problem that arises in the estimation of hierarchical models is that the items necessary for estimating the constructs of higher levels no longer exist since they have already been used to estimate the first-order constructs. To overcome this limit, three solutions have been proposed, according to Becker, Klein and Wetzels (2012): (1) the repeated indicator approach, (2) the two-step approach, and (3) the hybrid approach.

Without engaging in a long comparison between these approaches, three reasons suffice to favor the repeated indicators approach. The first advantage is that the upper-level latent variable is constructed from all the items of the lower-level constructs. The second advantage is that this approach simultaneously estimates both the lower-level and higher-level constructs, which allows all parts of the model to be considered and thus produces a better interpretation of the results (Wilson & Henseler, 2007). The third advantage is that this method makes it possible to evaluate the effect of the manifest variables not only on the first-level latent variables but also on those of higher levels (Ciavolino & Nitti, 2010).

The structural equation model of the study is designed in such a way that it allows to measure the direct effects of instrumental freedoms on the five selected human capabilities. But it will also capture the indirect effects between all the latent variables (Figure 1).

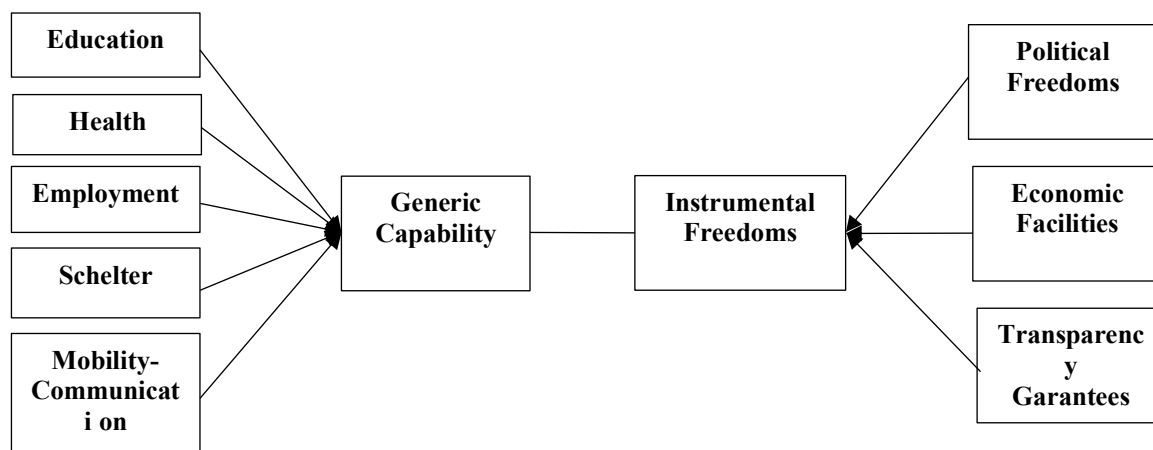


Figure 1: Conceptual model

3.3. Data Source

This empirical study is a cross-section of 60 countries for the year 2010. The main source of data is the World Bank Group (World Development Indicators) excluding health indicators which are from the World Health Organization.

4. Results / Analysis

To validate the model, it is recommended by Hult, Sarstedt, Ringle and Hair (2016) to go through three steps: 1) examination of the statistical indicators chosen (manifest variables), 2) evaluation of the measurement model (relationships between the manifest variables and the latent variables with which they are associated) to ensure the relevance of the different blocks of items, and 3) evaluation of the internal or structural model (relationships between the latent variables)

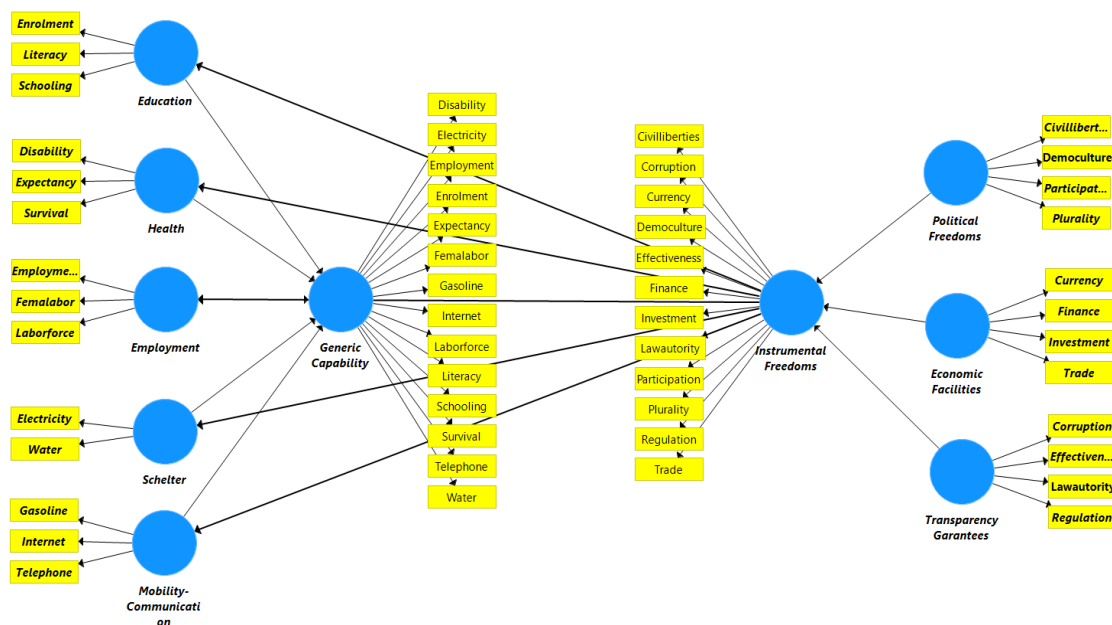


Figure 2: Measurement model SmartPLS (Version 3.3.2) Output

4.1 Examination Of Statistical Indicators

The robustness of the measurement instruments depends on the internal consistency reliability and unidimensionality of the blocks of items. These two preliminary conditions are verified through the calculation of Cronbach's alpha and the application of the principal component analysis (PCA) to each block of items. The significance of the two calculated normality tests namely the Kolmogorov-Smirnov test (K-S) and the Shapiro-Wilk test (S-W) proves that the variables retained do not follow a normal distribution (Table 1).

Table 1: Examination of statistical variables

Latent variables	Items	Principal component analysis		Reliability analysis	Normality tests	
		Component Matrix	Variance explained (%)	Cronbach's alpha	K-S ^a (Seg) ^b	S-W (Seg)
Endogenous variables						
Education	Schooling	0,900	74,091	0,825	,002	,002
	Literacy	0,843			,000	,000
	Enrolment	0,838			,010	,379
Health	Disability	0,965	83,437	0,900	,056	,000
	Expectancy	0,910			,023	,001
	Survival	0,863			,003	,000
Shelter	Electricity	0,96	92,227	0,916	,000	,000
	Water	0,96			,000	,000
Employment	Laborforce	0,966	78,330	0,856	,200*	,855
	Employment	0,925			,200*	,996
	Femalabor	0,749			,000	,000
Mobility/ Communication	Internet	0,923	77,299	0,852	,200*	,061
	Telephone	0,873			,032	,042
	Gasoline	0,840			,200*	,675
Exogenous variables						
Political Freedoms	Civiliberties	0,906	76,297	0,874	,000	,000
	Plurality	0,895			,000	,000
	Participation	0,880			,048	,619
	Democulture	0,810			,002	,013
Economic Freedoms	Finance	0,930	73,548	0,877	,001	,021
	Investment	0,914			,010	,009
	Trade	0,824			,000	,000
	Currency	0,751			,000	,022
Transparency guarantees	Lawauthority	0,987	95,289	0,983	,165	,002
	Effectiveness	0,985			,200*	,122
	Corruption	0,973			,010	,002
	Regulation	0,959			,008	,010

a. Lilliefors Significance Correction

b. Significance

*. This is a lower bound of the true significance.

Source: Author's calculation/SmartPLS (Version 3.3.2) Output

4.2 Validation Of Measurement Model

According to Hult et al. (2016), the validity of the measurement model is determined through a procedure of three important steps: (1) evaluation of the internal consistency of the measurement instruments, (2) assessment of the convergent validity, and (3) assessment of the discriminant validity.

4.3. Reliability Of Indicators And Validity Of Constructs

Table 2 shows that all the latent variables have good composite reliability (CR) for exceeding the threshold value of 0.7 which is commonly recommended (Henseler, Ringle & Sinkovics, 2009). The loadings of items are consolidated by analyzing their statistical significance using the bootstrapping technique (Table 2).

Table 2: Reliability of indicators and validity of constructs

Latent variables		Reliability of indicators			(CR)	(AVE)
		Items	Loading (λ_i)	Significance (T) (P)		
Endogenous variables FOC	Education	Schooling	0,912	42,150	0,895	0,740
		Literacy	0,820	8,579		
		Enrolment	0,846	25,384		
	Health	Disability	0,966	71,684	0,937	0,834
		Expectancy	0,923	40,991		
		Survival	0,846	14,858		

Exogenous variables	SOC	Shelter	Electricity	0,951	10,263	0.000	0,959	0,921
			Water	0969	26,065	0.000		
		Employment	Laborforce	0,911	11,291	0.000	0,906	0,762
			Employment	0,846	8,757	0.000		
			Femalabor	0,861	22,375	0.000		
		Communication and mobility	Internet	0,932	65,576	0.000	0,910	0,773
			Telephone	0,874	25,843	0.000		
			Gasoline	0,828	12,390	0.000		
		Generic capability					0,936	0,521
	FOC	Political freedoms	Civiliberties	0,861	24,138	0.000	0,913	0,725
			Plurality	0,827	24,026	0.000		
			Participation	0,898	37,610	0.000		
			Democulture	0,819	21,552	0.000		
		Economic freedoms	Finance	0,932	57,958	0.000	0,917	0,735
			Investment	0,911	45,549	0.000		
			Trade	0,824	23,470	0.000		
			Currency	0,746	10,953	0.000		
		Transparency guarantees	Lawauthority	0,987	307,418	0.000	0,987	0,951
			Effectiveness	0,983	232,411	0.000		
			Corruption	0,972	156,501	0.000		
			Regulation	0,959	138,865	0.000		
	SOC	Instrumental freedoms					0,962	0,681

FOC: First order constructs /SOC: Second order constructs

T : T Statistics

P : P Values

Source: Author's calculation/SmartPLS (Version 3.3.2) Output

4.4. Convergent Validity

The convergent validity of the constructs is checked using the average variance extracted (AVE) (Fornell & Larcker, 1981; Picot-Coupey, 2009). Table 2 shows that each latent variable shares more than 50% of the variance with its own items (AVE > 0.5).

4.5. Discriminant Validity of Constructs

Discriminant validity is proven when each latent variable shares more variance with its items than with those of the other latent variables (Chin, 1998). Table 3 shows that the factorial contributions of each item are higher than its cross-loadings.

Table 3: Discriminant validity of constructs

	Education	Health	Shelter	Employment	Mobility-Com	Political Freedoms	Economic Facilities	Transparency guarantees
Schooling	0.912	0.548	0.581	0.508	0.686	0.674	0.647	0.634
Literacy	0.820	0.435	0.751	0.515	0.401	0.393	0.327	0.232
Enrolment	0.846	0.539	0.504	0.424	0.636	0.563	0.460	0.491
Disability	0.565	0.966	0.638	0.271	0.758	0.566	0.631	0.717
Expectancy	0.655	0.923	0.623	0.473	0.784	0.654	0.609	0.698
Survival	0.372	0.846	0.509	0.223	0.598	0.440	0.551	0.527
Electricity	0.606	0.596	0.951	0.236	0.393	0.261	0.269	0.309
Water	0.722	0.649	0.969	0.360	0.572	0.471	0.364	0.462
Laborforce	0.268	0.192	0.091	0.911	0.242	0.444	0.349	0.294
Employment	0.252	0.287	0.211	0.846	0.266	0.454	0.262	0.306
Femalabor	0.746	0.402	0.420	0.861	0.629	0.644	0.548	0.495
Internet	0.676	0.773	0.525	0.495	0.932	0.792	0.774	0.892
Telephone	0.624	0.722	0.476	0.432	0.874	0.636	0.512	0.704
Gasoline	0.481	0.567	0.331	0.356	0.828	0.637	0.578	0.638
Civiliberties	0.567	0.394	0.261	0.585	0.595	0.861	0.644	0.632
Plurality	0.586	0.510	0.410	0.568	0.625	0.827	0.476	0.575
Participation	0.594	0.542	0.311	0.595	0.705	0.898	0.636	0.717
Democulture	0.461	0.639	0.366	0.375	0.751	0.819	0.570	0.824
Finance	0.516	0.548	0.344	0.424	0.637	0.682	0.932	0.761
Investment	0.466	0.588	0.290	0.398	0.665	0.591	0.915	0.754
Trade	0.692	0.527	0.337	0.543	0.644	0.616	0.924	0.586
Currency	0.278	0.601	0.159	0.274	0.501	0.446	0.946	0.601
Lawauthority	0.523	0.686	0.392	0.391	0.849	0.790	0.732	0.987
Effectiveness	0.528	0.707	0.421	0.432	0.833	0.799	0.745	0.983
Corruption	0.484	0.690	0.341	0.442	0.830	0.783	0.753	0.972
Regulation	0.601	0.711	0.443	0.484	0.833	0.797	0.859	0.959

Source: Author's calculation/SmartPLS (Version 3.3.2) Output

4.6. Validation Of Structural Model

As with the measurement model, the validation of the structural model requires a series of tests. Hult et al. (2016) summarized the procedure for validating the structural model in five important steps: (1) evaluation of the collinearity level of the model, (2) evaluation of the coefficient of determination levels, (3) evaluation of the relevance and significance of structural relationships, (4) evaluation of the effect size, and (5) evaluation of the predictive relevance of the model and its total quality.

4.7. Collinearity Assessment

The tool conventionally used to judge the level of collinearity i.e. whether tolerable or not is the variance inflation factor (VIF) (Henseler et al., 2009). The commonly accepted threshold is a VIF value of less than 10. In other words, a VIF greater than 10 reveals a critical collinearity level for model estimation, whereas a VIF of less than 3 is generally considered to be excellent. Table 4 shows that the calculated VIF is below the recommended thresholds.

Table 4: Collinearity assessment

Collinearity Statistics (Inner VIF values)		
	Generic capability	Instrumental freedoms
Education	3.190	
Health	3.508	
Shelter	2.578	
Employment	1.533	
Mobility-Communication	3.646	
Economic Facilities		2.729
Political Freedoms		2.988
Transparency Guarantees		4.250

Source: Author's calculation/SmartPLS (Version 3.3.2) Output

4.8. The Relevance And Significance of The Structural Model Path Coefficients

In this study, the path coefficients are greater than 0.5. The analysis of the relevance of structural relationships is supplemented by evaluating the significance levels of the different structural model path coefficients obtained using the bootstrapping procedure (Table 5).

Table 5: Relevance and significance of the structural model path coefficients

Path coefficients, STDEV, T-Values, P-Values a				
Structural paths	Original Sample (O)	Standard Deviation (STDEV)	T Statisticsb (O/STDEV)	P Values
Instrumental Freedoms -> Education	0.639	0.072	8.845	0.000
Instrumental Freedoms -> Employment	0.557	0.084	6.616	0.000
Instrumental Freedoms -> Health	0.725	0.043	16.981	0.000
Instrumental Freedoms -> Mobility-Communication	0.864	0.030	28.569	0.000
Instrumental Freedoms -> Shelter	0.418	0.081	5.157	0.000

a Standard deviation, T-value and P-value are generated by the bootstrap procedure (n = 5000)
b (T> 1.58, significance at the 10% threshold)
(T> 1.96, significance at the 5% threshold)
(T> 2.58, significance at the 1% threshold)

Source: Author's calculation/SmartPLS (Version 3.3.2) Output

4.9. Evaluation Of Coefficients of Determination And Effect Size

Referring to Chin (1998) and Hult et al. (2016), we can interpret the R^2 value for mobility and communication capability ($R^2 = 0.747$) as very high, and for health ($R^2 = 0.526$), education ($R^2 = 0.409$) and employment ($R^2 = 0.310$) as moderate whilst for housing capability ($R^2 = 0.175$) as low. Based on the evaluation of the R^2 changes following the omission of an exogenous variable, the effect size f^2 is used to evaluate whether the omitted exogenous variable has a high, medium, or low impact on the endogenous variables. According to the criteria of the PLS approach (Hult et al., 2016), we can interpret the effect of the capabilities of mobility and communication ($f^2 = 2.957$), health ($f^2 = 1.110$), education ($f^2 = 0.691$), and employment ($f^2 = 0.449$) as very strong, and that of housing capability ($f^2 = 0.212$) as moderate.

Table 6: Coefficients of determination and effect size

Endogenous latent variables	R Square	F Square
Education	0.409	0.691
Employment	0.310	0.449
Health	0.526	1.110
Shelter	0.175	0.212
Mobility-Communication	0.747	2.957

Source: Author's calculation/SmartPLS (Version 3.3.2) Output

4.10. Testing The Predictive Relevance Of The Model

The blindfolding procedure is used to generate the Stone-Geisser Q^2 which is a commonly accepted indicator of the predictive relevance of models. A Q^2 of Stone-Geisser greater than 0 indicates a predictive relevance of the model (Henseler et al., 2009; Hult et al., 2016). Table 7 presents the results of the Stone and Geisser test. The cross-validation test of the Stone-Geisser Q^2 calculated for the hierarchical model is much greater than 0. This result proves that the model has significant predictive relevance.

Table 7: The predictive relevance of the model

Construct	Cross validated Redundancy (Q^2)	SSO ^a	SSE ^b	$Q^2 (=1-SSE/SSO)$
Education		180.000	131.138	0.271
Employment		180.000	144.241	0.199
Health		180.000	106.224	0.410
Mobility-Communication		180.000	82.949	0.539
Shelter		120.000	102.151	0.149
Generic Capability		840.000	446.941	0.468
Instrumental Freedoms		720.000	269.485	0.626

^a SSO: Sum of squares observations

^b SSE: Sum of squares of prediction errors

Source: Author's calculation/SmartPLS (Version 3.3.2) Output

4.11. The Multi-Group Analysis

The Partial Least Squares Multi-Group Analysis (PLS-MGA) is a specific method (Hult et al., 2016) to determine if the model changes significantly depending on whether it is in the context of developed or developing countries. Table 8 shows that the level of development does not moderate the effect of instrumental freedoms on the various capabilities.

Table 8: PLS-MGA results

Structural paths	Path Coefficients-diff (GROUP A - GROUP B)	p-Value (GROUP A vs GROUP B)
Instrumental Freedoms -> Health	0.076 ^{NS}	0.349
Instrumental Freedoms -> Education	1.087 ^{NS}	0.934
Instrumental Freedoms -> Employment	0.389 ^S	0.013
Instrumental Freedoms -> Shelter	0.016 ^{NS}	0.441
Instrumental Freedoms -> Mobility-Communication	0.246 ^{NS}	0.048

^{NS}: Not significant (0.05 < p < 0.95)

^S : Significant at 5% level

GROUP_A: Developed Countries

GROUP_B: Developing Countries

Source: Author's calculation/SmartPLS (Version 3.3.2) Output

5. Discussion

The results of the model provide empirical support for Amartya Sen's comments, which repeatedly emphasize the crucial instrumental role that transparency guarantees can play in promoting human development. Assuming a 1% significance level, the guarantees of transparency have a positive effect on the five capabilities: health (0.313; $t = 17.227$), education (0.276; $t = 8.383$), housing (0.181; $t = 5.099$), employment (0.241; $t = 7.013$), and mobility and communication (0.374; $t = 22.950$). This conclusion is confirmed by the positive effect of transparency guarantees on generic capability (0.349; $t = 18.379$). The high significance of all these effects ($p = 0.000$) indicates that the improvement of basic capabilities depends on the level of trust and clarity of the information one receives. A public policy of human development would be "capacitating" if it is accompanied by anti-corruption measures likely to consolidate the general interest to the detriment of the private interests of the elites and authority of the law which sets the milestones of the rule of law. Of course, this requires the adoption of a total quality approach of public services and an upgrade of the regulations since the credibility of public policies depends on them scrupulously.

At a 1% significance level, the model also recorded a positive effect of political freedoms on the selected capabilities: health (0.245; $t = 9.947$), education (0.216; $t = 7.084$), housing (0.141; $t = 5.227$), employment (0.188; $t = 5.495$), and mobility and communication (0.292; $t = 11.083$). This is easily seen from the relevance of the structural relationship between political freedoms and generic capability (0.273; $t = 10.363$). These results suggest, therefore, that when people elect, control, and fairly criticize their governments, they will be more likely to benefit from a good level of capabilities. In other words, the achievements of people in the different dimensions of human development would improve if: 1) there is respect for plurality and diversity of expression, which creates a favorable context for political debate and disadvantages, on the other hand, including passivity, apathy, and obedience, 2) there is respect for civil liberties such as freedom of association, expression, and the press, 3) there

is respect for democratic rules through fair elections, for all participants, without the influence of foreign forces, and 4) there is a high level of political participation by citizens knowing that participation does not only refer to elections but also to multiple forms of civic engagements such as civil society organizations, political parties, social movements, etc.

At the economic level, the model confirms the positive effects of political freedoms on capabilities: health (0.228; $t = 10.494$), education (0.201; $t = 7.110$), housing (0.132; $t = 4.076$), employment (0.175; $t = 5.887$), and mobility and communication (0.272; $t = 12.060$). Indeed, a good level of human capabilities could be reached when: 1) trade is easy, and without many legislative or regulatory limits, 2) there is little government involvement in the financial area, which strengthens bank independence and limits governments to ensuring compliance with contracts or preventing fraud, 3) the currency is not constrained by policymakers according to their objectives, and 4) domestic and foreign investments can be made with few financial and bureaucratic barriers.

One of the main objectives of this paper is to determine, empirically, whether instrumental freedoms, once interconnected, reinforce each other. As a result, their effect on improving the level of human capabilities becomes much stronger. Indeed, by analyzing the structural model relationships, one can see that the second-order construct i.e. “instrumental freedoms” has a substantial effect on health (0.725; $t = 10.494$; $p = 0.000$). This result is valid for both developed (0.474; $t = 3.085$; $p = 0.002$) and developing countries (0.398; $t = 2.258$; $p = 0.011$). As far as education is concerned, instrumental freedoms when interconnected exercise a positive and significant effect (0.639; $t = 8.515$; $p = 0.000$). This conclusion is valid for developing countries (0.451; $t = 2.241$; $p = 0.015$). Whereas at the level of developed countries, the positive effect is always substantial but its significance is not validated by the model (0.636; $t = 1.494$; $p = 0.135$). The capability of employment is also substantially affected by the interconnection of instrumental freedoms (0.557; $t = 6.724$; $p = 0.000$). But our comparative analysis shows that this result is much more relevant to developed countries (0.752; $t = 9.623$; $p = 0.000$) than developing countries (0.363; $t = 1.883$; $p = 0.060$). Their lowest effect is recorded at the level of housing capability (0.418; $t = 5.057$; $p = 0.000$). The two sub-groups of countries are concerned in the same proportions (developing countries: 0.240; $t = 1.623$; $p = 0.105$, and developed countries: 0.256; $t = 1.538$; $p = 0.124$). Finally, the strongest effect is recorded at the level of mobility and communication capabilities (0.864; $t = 28.478$; $p = 0.000$). The relevance and significance of this structural relationship remains valid, whether at the level of developed (0.741; $t = 5.879$; $p = 0.000$) or developing countries (0.495; $t = 3.070$; $p = 0.002$).

The estimated parameters differ from one group of observations to another. It is, therefore, necessary to know whether these differences between developed and developing countries are statistically significant, or is it only a numerical difference inherent to the change of observations. The results of the PLS-MGA approach applied to the model suggest that the latter does not differ significantly between developed and developing countries. It can be concluded that instrumental freedoms when interconnected can positively and significantly impact capabilities in the same way in both developed and developing countries.

6. Conclusion

This paper has demonstrated that various kinds of instrumental freedoms promote human capabilities, as advanced by Amartya Sen in "Development as Freedom." It answers a frequently asked question in the literature (Alkire, 2010): “How are instrumental freedoms, often considered a significant part of human development, linked to the ends of human development if these are perceived as capabilities?” The study has shown that the three instrumental freedoms (political freedoms, economic facilities, and guarantees of transparency) have separate positive and significant effects on the five substantial human capabilities studied: education, health, housing, employment, and mobility and communication.

More importantly, this paper measured the changes in the strength of these effects once instrumental freedoms are interconnected. For example, the capability of mobility and communication is affected by each of the instrumental freedoms with positive effects of around 0.200, but when these freedoms interconnect, their effect on this capability significantly exceeds 0.850.

7. Limitations And Future Recommendations

Several questions remain open at the end of this work. Among these, it is important to understand how political freedoms, economic facilities, and transparency guarantees are mutually reinforcing. In other words, further empirical studies should be conducted to measure the effect of each kind of instrumental freedom on the others while capturing the effect of their interconnection on the level of the main human capabilities such as health and education.

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