

## Economic Innovation Models, Financial Innovation and Decision on Optimal Policy

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DOI: <http://doi.org/10.38177/AJBSR.2024.6313>

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Article Received: 14 July 2024

Article Accepted: 15 September 2024

Article Published: 18 September 2024

### ABSTRACT

This article focuses on **Economic Innovation Models, Financial Innovation and Decision on Optimal Policy** in recent years. Method: Methodologies include Qualitative research method: synthesis and inductive methods. Sekhar (2013) pointed Innovation is mainly driven by modern Globalization and investors and government resulting in exposing to new and wider international risk, innovation becomes a new tool to solve, manage and transfer the entire extra burden. We also expand SWOT model by adding Value part analysis on it. Results: Authors stated threats in SWOT model **including but not limit to**: Covid-19 reduces turnover/revenue of many regions (municipals); Competition pressure (high) on many aspects; goods (local and global markets), tech innovation, green transformation, chip, etc.

**Keywords:** SWOT; Factors; R&D; Economic innovation; Technological change.

### 1. Introduction

Firstly, Ali et al. (2023) pointed that the integration of economic policies to achieve sustainable development by balancing economic growth, social equity, and environmental protection. It examines the challenges and opportunities associated with incorporating sustainability objectives into economic policies and presents successful case studies from various regions. The paper provides policymakers with recommendations for designing and implementing effective economic policies that foster sustainable development while promoting growth, social equity, and environmental protection.

The prospects for global economic growth and major partners greatly affect Vietnam's economic growth. Vietnam's economy is affected in two directions by reduced growth and export demand from countries due to Covid-19 as well as measures to restore growth after the pandemic (source: moc.gov.vn).

### 2. Previous studies

Sukharev (2019) studied possibilities of institutional theory to establish a modern theory of econ growth, including factors of institution and tech changes with micro level analysis.

Moreover we look at below table:

Authors	Year	Contents, results
Kumar	1969	An optimal policy characterized as an optimal choice among alternative feasible time paths in transforming economy from initial state to final state at end of planning horizon.
Sekhar	2013	Creating a new financial product or adding new features to existing financial product is the central theme of financial engineering. Hence, the innovative products should try to reduce financial risk and it should aim to reach "financial optimization". Innovation is

		mainly driven by modern Globalization and investors and government resulting in exposing to new and wider international risk, innovation becomes a new tool to solve, manage and transfer the entire extra burden.
Ashimov et al.	2011	Choice of effective coherent policy in sphere of eco growth under multi criteria optimization based on 2 computable general equilibrium models with optimization variables.
Furtado et al.	2022	Suggest a mixed policy instrument evaluated by a comprehensive indicator performs better.
Chu	2021	Pointed that the cash-in-advance constraints on consumption and R&D investment have drastically different implications on the macroeconomic effects of inflation.

(Source: Author Synthesis)

Hence authors choose this topic:

### **Analysis of Economic Innovation Models, Financial Innovation and Decision on Optimal Policy.**

#### **3. Methodology**

##### **3.1. Methods**

- **Qualitative research method:** We also uses comparison and synthesis method, combined with analytical and inductive methods, whereas we take advantage of historical (combined with) dialectical materialism method for our qualitative analysis.

- **Quantitative research methods:** Authors use scientific results as reference.

#### **4. Main findings**

##### **4.1. Background**

For Vietnam, 2020 was considered relatively successful in terms of fighting the pandemic and economic targets with a growth rate of 2.91%. However, in 2021, with the complicated developments of the Covid-19 pandemic caused by the Delta variant, our country's growth targets had to be adjusted and were lower than the set plan.

In 2023, our country's socio-economic situation continues to change positively, basically achieving the set general goals and many important results in all fields, continuing to be a bright spot in the global economy. The macro economy is stable, inflation is controlled, major balances are ensured. Economic growth has gradually recovered, each quarter is higher than the previous quarter, the whole year is estimated at 5.05%, belonging to the group of high-growth countries in the region and the world; many prestigious international organizations highly appreciate the results and prospects of our country's economy.

Cultural and social fields continue to receive investment and development attention, achieving and exceeding all social planning targets. Fully and promptly implement policies for people with meritorious services, ensure social security and support people and businesses; people's lives are improved. Poverty reduction continues to be a bright spot, highly appreciated internationally. Resolutely implement action programs to respond to climate change, reduce emissions, and convert energy (source: vietnamhoinhap.vn).

## 4.2. Innovation model

First we look at:

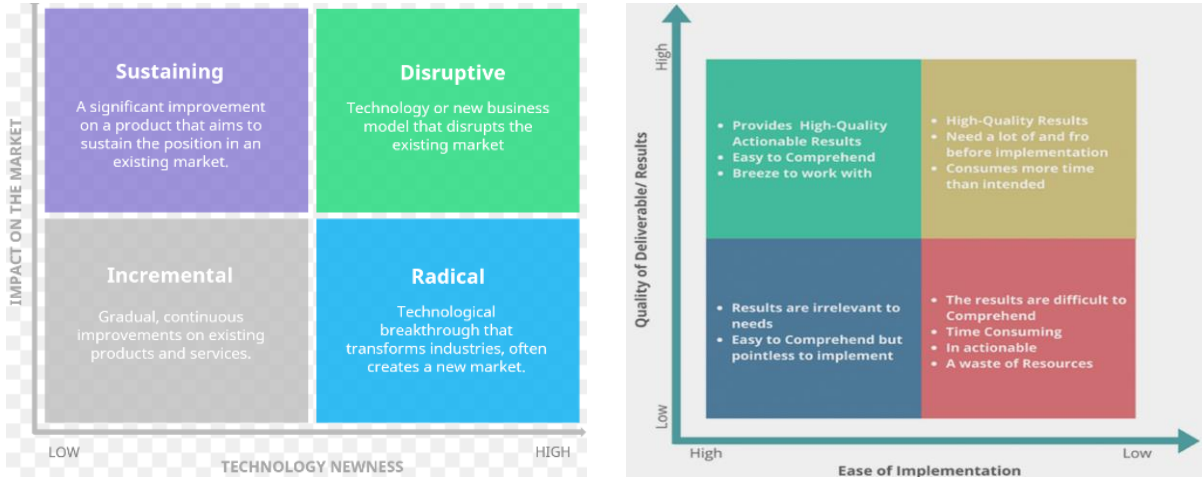


Figure 1. Innovation types (Source: viima.com)



Figure 2. Innovation resource mgt drivers (Source: kyinbridge.com)

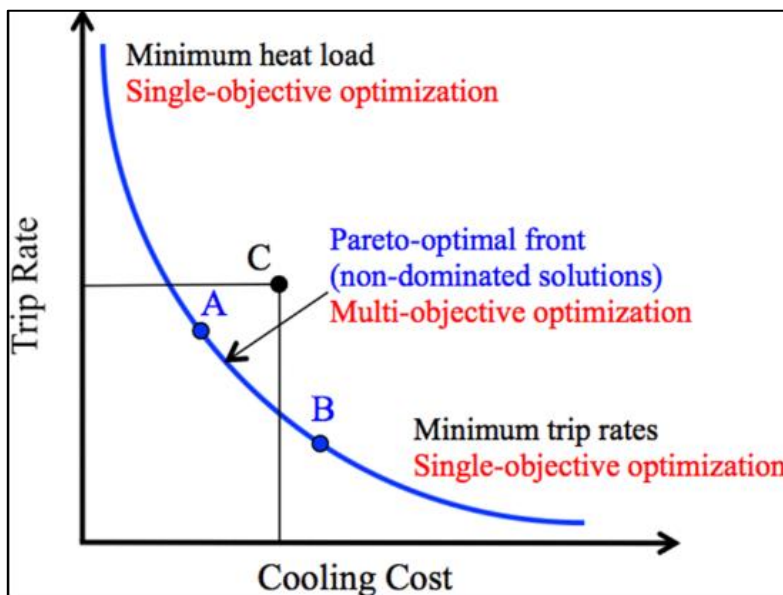


Figure 3. How to select optimal policy (Source: researchgate.net)

The Pareto-optimal front for the simultaneous optimization of the linac’s cooling cost and trip rate (multi-objective optimization). Asymptotically, the solutions at the extremes of the Pareto-optimal curve represent the single-objective minimization of the cooling cost (top left portion of the curve) and the single-objective minimization of the trip rates (bottom right portion of the curve). Solutions A and B are on the Pareto-optimal front, while solution C is not because it is dominated by solution A (A is within the rectangle defined by C’s coordinates).

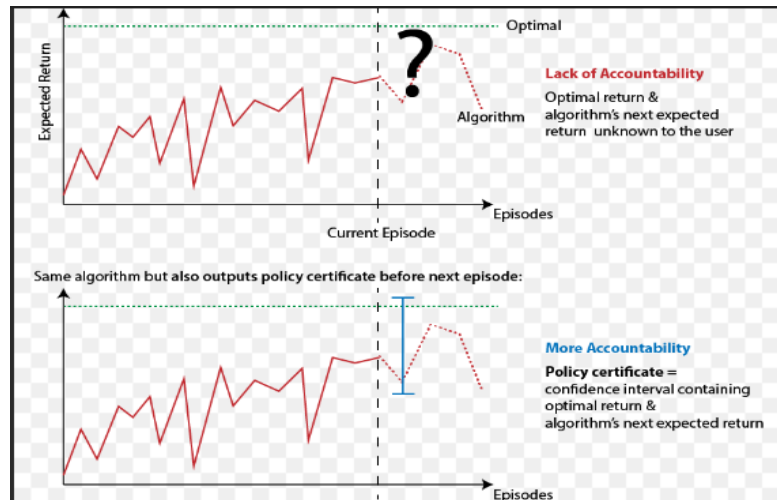


Figure 4. Optimal line (Source: blog.ml.cmu.edu)

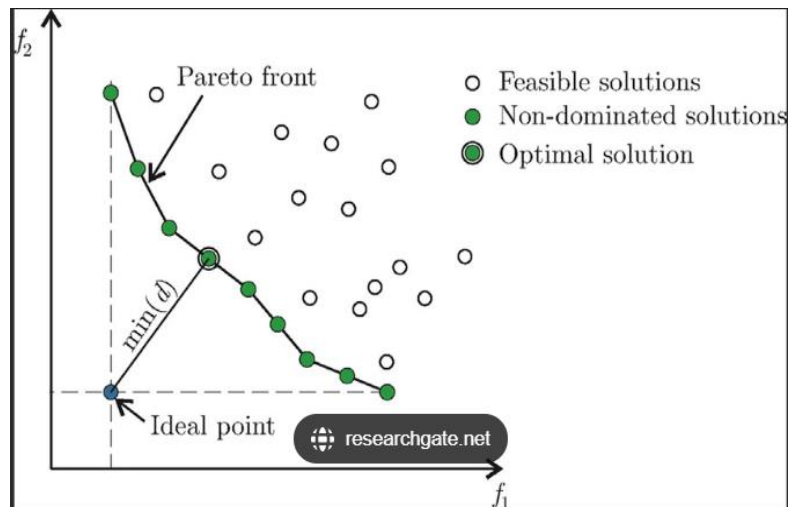


Figure 5. Pareto optimal (Source: researchgate.net)

Moreover we analyze:

### 4.3. SWOT analysis

Table 1. SWOT analysis and Values

<b>Values</b>	- Levels of R&D will influence benefits/values of global commerce among countries.
<b>Strengths</b> - The deep level of R&D will affect commercial activities (and of enterprises). - Stable macro economy and inflation.	<b>Weaknesses</b> - Using many old technologies. - Green tech, digital and circular economy still develop slowly.

	- E-commerce in businesses still moderate. - Barriers for importing digital tech.
<b>Opportunities</b> - Covid 19 bring opportunities for smart solutions for social issues in smart cities. - New FDI investment projects attraction.	<b>Threats</b> - Covid 19 reduces turnover/revenue of many regions (municipals). - Competition pressure (high) on many aspects; goods (local and global markets), tech innovation, green transformation, chip, etc.

(Source: Author Analysis)

#### 4.4. Quantitative model example

```
. sum x2 Bond set100
```

Variable	Obs	Mean	Std. Dev.	Min	Max
x2	1,221	200.8972	18.84665	164	250
Bond	1,221	1.303575	.7883768	.28	2.52
set100	1,221	2070.668	172.9294	1484.85	2368.91

```
. xtset name Bond
time variable must contain only integer values
r(451);
```

```
. xtset Bond
panel variable: Bond (unbalanced)
```

```
. pwcorr Bond x1 set100 ,star(.05)
```

	Bond	x1	set100
Bond	1.0000		
x1	0.1483*	1.0000	
set100	-0.3518*	0.6969*	1.0000

```
. pwcorr Bond x1 set100 ,star(.1)
```

	Bond	x1	set100
Bond	1.0000		
x1	0.1483*	1.0000	
set100	-0.3518*	0.6969*	1.0000

```
. kiem dinh da cong tuyen
command kiem is unrecognized
r(199);
```

```
. reg x1 Bond set100
```

Source	SS	df	MS	Number of obs	=	1,221
Model	167.613156	2	83.806578	F(2, 1218)	=	1194.47
Residual	85.4571492	1,218	.070161863	Prob > F	=	0.0000
Total	253.070305	1,220	.207434676	R-squared	=	0.6623
				Adj R-squared	=	0.6618
				Root MSE	=	.26488

x1	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
Bond	.2594054	.0102759	25.24	0.000	.2392451 .2795658
set100	.0022514	.0000468	48.06	0.000	.0021595 .0023433
_cons	-2.608488	.1027667	-25.38	0.000	-2.810107 -2.406868

```
. vif
```

Variable	VIF	1/VIF
Bond	1.14	0.876269
set100	1.14	0.876269
Mean VIF	1.14	

. muc thap <10 ko nghiêm trong da công tuyen

(Source: Author Analysis with Stata)

## 5. Discussion and Conclusion

When C. Marx dissected and analyzed capitalism, he pointed out that the capitalist regime was progressive compared to the feudal regime, but also contained internal contradictions that it could not save itself, and at the same time prepared the premises for a new, higher socio-economic form, which was inevitable to emerge. Creatively applying and developing Marxism in the conditions of imperialism, that is, monopoly capitalism, V.I. Lenin pointed out its uneven economic and political development, and that once the revolution was ripe, an economically underdeveloped country could still have a proletarian revolution, putting its country on the path to socialism (source: vietnamhoinhap.vn).

Finally we need to prepare for green industrial transformation and circular economy mechanism, as well as forecasting inflation well, attracting FDI and high tech projects.

And Basheer (2023) stated that The 2030 Sustainable Development Goals (SDGs) aim at jointly improving economic, social, and environmental outcomes for human prosperity and planetary health. However, designing national economic policies that support advancement across multiple Sustainable Development Goals is hindered by the complexities of multi-sector economies and often conflicting policies. The framework combines economy-wide sustainability simulation and artificial intelligence-driven multi-objective, multi-SDG policy search and machine learning. The framework can support multi-sector, multi-actor policy deliberation to screen efficient policy portfolios. We demonstrate the utility of the framework for a case study of Egypt by identifying policy portfolios that achieve efficient mixes of poverty and inequality reduction, economic growth, and climate change mitigation. The results show that integrated policy strategies can help achieve sustainable development while balancing adverse economic, social, and political impacts of reforms.

### Declarations

#### Source of Funding

This study did not receive any grant from funding agencies in the public, commercial, or not-for-profit sectors.

#### Competing Interests Statement

The authors declare no competing financial, professional, or personal interests.

#### Consent for publication

The authors declare that they consented to the publication of this study.

#### Authors' contributions

All the authors took part in literature review, analysis and manuscript writing equally.



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