

Does the emerging social media platform promote economic growth in the UK?

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The recent explosion of social media has prompted many discussions on its impact on the economy. However, the presence of a time trend in economy growth and social media development is often neglected. In this poster, we aim to analyse the impact of social media on UK economy through both theoretical economic framework and empirical data.

Characteristics of social media

On Individual Level

- Interactivity create a community feelings, influencing purchasing decisions.

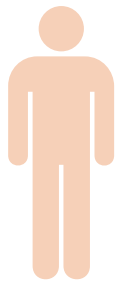
72% of people buy fashion&beauty products based on instagram posts.

Hubspot data

Social recommendations induced of 26% purchases across all product categories.

Mickinsey

- A small group of influencers
- A small number of active influencers accounted for a disproportionate share of total recommendations.



On Company's Level

- Social marketing** - marketing online using different platforms and tactics. e.g. creating branded videos on Snapchat.
- Business intelligence:** track customers preferences - brands use social data to understand their customers
- Reduce marketing cost**
- Majority of the platforms are **internationally used**. This has broken the barriers between countries.

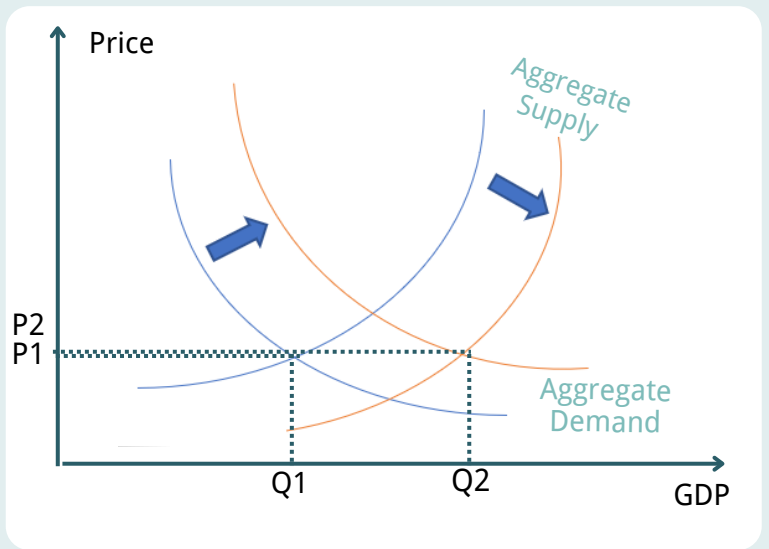


Theoretical Analysis of social media on the UK Economy

Supply Side: investment, innovation, production cost
Demand Side: consumption, investment, Net Export



Theoretically there will be an increase in GDP, whereas the price level might not change too much.



Empirical Analysis using economical model

Our regression model:

$$gdppc = \beta_0 + \beta_1 * swpenerate + \beta_2 * avgusaget + \beta_3 * nSWbuis + \beta_4 * SM_MS + \beta_5 * time + u$$

Dependent variable:

- UK GDP per capita/ pound (gdppc)

Independent variables:

- Social media penetration rate/% (swpenerate)
- Average usage time on social media (avgusaget)
- Number of Social Media Platforms Businesses in the UK (nSWbuis)
- Social Media Platforms in the UK Market Size in million pounds (SM_MS)
- Time-index

	Source	SS	df	MS	Number of obs	=	10
Model		9837957.01	5	1967591.4	F(5, 4)	=	2.57
Residual		3066643.39	4	766660.846	Prob > F	=	0.1911
Total		12904600.4	9	1433844.49	R-squared	=	0.7624
					Adj R-squared	=	0.4653
					Root MSE	=	875.59

	gdppc	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
avgusaget		-22.51156	25.65802	-0.88	0.430	-93.74963 48.72652
swpenerate		194.6964	159.0174	1.22	0.288	-246.8067 636.1994
nSWbuis		67.2883	27.33325	2.46	0.070	-8.600965 143.1776
SM_MS		-2.685409	1.563259	-1.72	0.161	-7.025713 1.654895
time_index		-1108.44	728.7769	-1.52	0.203	-3131.849 914.9689
_cons		21388.96	7544.996	2.83	0.047	440.6899 42337.22

Null Hypothesis: these factors contribute to GDP, i.e. coefficient of each factor equal to 0.

Analysis: Our regression results show that once we factored in time trend, "swpenerate", "avgusaget" and "SM_MS" are not significant at 10% significance level. However, we do see that as the number of **Social media business** increases by 1, **UK GDP per capita** are expected to increase by 67 pounds. The variable is significant at 10% significance level.

Conclusion :

- The increase in GDP per capita across years might not be due to the explosion of social media related activities.
- They might indeed follow a spurious relationship whereas all increase with time.
- Our hypothesis cannot be reject and so our theoretical analysis might not be true.

Limitations :

- Extrapolation** of data in 2012, 2013- since data is missing for these years.
- Small dataset** - social media is a rather new creation which imposes a limit on the number of data points we can collect. This means our estimates might not be accurate, but they nevertheless can serve as a rough guide for us to explore the impact of social media on GDP per capita.

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Video Link: <https://drive.google.com/file/d/15WPFwilM6zdPv6PwpwbAmpog4NzfnLni/view?usp=sharing>