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The App Economy in Vietnam, 2023

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INTRODUCTION

What is the future of the global App Economy? The average person already spends hours each day on mobile applications, connecting with friends and relatives, watching news and entertainment, playing games, and doing daily tasks such as shopping and banking. People will use apps to interact with their cars, to connect with their health care. Artificial intelligence, low latency and high bandwidth 5G connections, virtual/mixed reality, intensive data processing, and on-device machine learning will give rise to entirely new categories of mobile applications. Individuals and businesses will become ever more dependent on mobile apps for their daily lives.

Vietnam already has a prominent position in the global App Economy. A recent article from Bloomberg was titled "A Decade After Flappy Bird, Vietnam Becomes Gaming Powerhouse."[1] Other articles highlighted key export-oriented Vietnamese app developers such as Rocket Studio.[2]

For Vietnam, the evolving App Economy is a potent source of future jobs that goes beyond games, since developing, updating, maintaining, and securing mobile apps is becoming even more important. None of these jobs existed 15 years ago, when Apple first opened the App Store on July 10, 2008, in the middle of the global financial crisis.[3] Android Market (which later became Google Play) was announced by Google shortly after.[4] These app stores created a new route through which software developers could write programs for smartphones. These mobile applications — called "apps" — could then be distributed to the rapidly growing number of smartphone users around the world.

The jobs generated by the app stores became an important part of the global economic expansion. More than that, app development and the app stores became a key route by which young people can develop tech skills, and also became an integral part of the global digital economy.

In this paper, we estimate 108,000 App Economy jobs for Vietnam, as of August 2023. We estimate the growth rate of App Economy jobs, drawing on previous PPI reports. We calculate the size of the iOS and Android ecosystems for Vietnam. We compare Vietnam's App Economy to other countries where we have recent estimates. And we also give some examples of App Economy jobs for Vietnam.

METHODOLOGY AND SUMMARY

For the past ten years, PPI has done a series of reports on the App Economy around the world.[5] For this report, a Vietnamese worker is in the App Economy if he or she is in:

- An IT-related job that uses App Economy skills — the ability to develop, maintain, or support mobile applications. We will call this a "core" app economy job. Core app economy jobs include app developers; software engineers whose work requires knowledge of mobile applications; security engineers who help keep mobile apps safe from being hacked; and help desk workers who support the use of mobile apps.

- A non-IT job (such as sales, marketing, finance, human resources, or administrative staff) that supports core app economy jobs in the same enterprise. We will call this an "indirect" app economy job.

- A job in the local economy that is supported either by the goods and services purchased by the enterprise, or by the income flowing to core and indirect app economy workers. These "spillover" jobs include local professional services such as bank tellers, law offices, and building managers; telecom, electric, and cable installers and maintainers; education, recreation, lodging, and restaurant

jobs; and all the other necessary services.

To estimate the number of core App Economy jobs in each country, we combine multiple sources of information in a systematic process, including the number of current public job postings for jobs that use App Economy skills.[6] We use data from International Labour Organization, combined with other sources to construct a consistent set of estimates of the number of information and communications technology (ICT) professionals in each country.[7] Then we use a conservative multiplier of indirect and spillover jobs to estimate overall App Economy jobs.[8] (A more detailed description of the basic methodology is found in "The App Economy in Europe: Leading Countries and Cities, 2017" and "The App Economy in India.")[9]

RESULTS

Vietnam has shown spectacular growth in App Economy jobs. In a report released in January 2018, we estimated that the Vietnamese App Economy had 43,000 jobs as of December 2017.[10] Our new estimate is 108,000 jobs as of August 2023, a 151% gain in just under six years.

Our methodology also allows us to break down App Economy jobs by mobile operating system. We find that the iOS ecosystem in Vietnam has 82,000 jobs as of August 2023, up 165% since 2017. The Android ecosystem has 89,000 jobs, up 154% since 2017. These are huge gains. (We note that the iOS and Android estimates sum to more than the total, because jobs can belong to both ecosystems).

TABLE 1: THE VIETNAMESE APP ECONOMY

	THOUSANDS OF JOBS	
	AUGUST 2023	DECEMBER 2017
TOTAL APP ECONOMY	108	43
IOS ECOSYSTEM	82	31
ANDROID ECOSYSTEM	89	35

Data: PPI estimates, vn.indeed.com, International Labour Organization
Note: iOS and Android jobs add to more than the total, because many jobs are in both ecosystems.

GLOBAL COMPARISONS

Table 2 shows how the Vietnamese App Economy compares to selected other countries in Europe, South America, and Asia. We note that the number of App Economy jobs in Vietnam is somewhat smaller than our 2023 estimates for major European countries such as Italy, Sweden, and Spain. App Economy employment in Brazil and South Korea is considerably larger, however.

TABLE 2. HOW THE VIETNAM APP ECONOMY MEASURES UP GLOBALLY

	APP ECONOMY JOBS (THOUSANDS)	YEAR
VIETNAM	108	2023
BELGIUM	66	2023
ITALY	144	2023
SWEDEN	163	2023
SPAIN	185	2023
BRAZIL	428	2023
SOUTH KOREA	516	2022

Data: PPI analysis

EXAMPLES

Vietnam is well-known for game developers. But in fact, the Vietnamese App Economy is far more diverse. In this section, we identify some companies that were looking for employees with App Economy skills in Vietnam. For example, as of July 2023, Citynow Technology Solutions, a company providing AI and machine learning services in Ho Chi Minh City, was looking for a mobile developer with Flutter, Android, and iOS experience. ALI Corp, a company providing systems for operating and managing taxi systems in Ho Chi Minh City, was looking for Android developers.

UNIT Corp, providing software solutions and products for finance and business management in Hà Nội, was looking for a mobile developer. SmartOSC, an e-commerce agency in Hà Nội established in 2006, was looking for an iOS developer. TechAcademy Vietnam, a software outsourcing company in Hà Nội, was looking for iOS developers.

Vietnam Booking, a company providing travel booking services in Ho Chi Minh City, was looking for iOS and Android app developers. Robust Tech House, a software development company in Ho Chi Minh City, was looking for a mobile developer.

Vietnam is an attractive destination for multinational companies looking for mobile developer talent. As of July 2023, Maruei Vietnam Precision Co., a manufacturing company was looking for an Information Technology Engineers with the ability to write applications on iOS and Android platforms. The job was located in Bình Dương, just north of Ho Chi Minh City, and the company is a subsidiary of the Maruei Group, which is an industrial multinational based in Okazaki Japan.

Drimaes, an automotive software company based in Daegu, South Korea, was looking for an embedded developer with Android expertise. The job was located in Cần Thơ, south and west of Ho Chi Minh City. Silicon Prime Labs a Los Angeles-based company specializing in application development and solutions for mobile devices, was looking for a senior mobile developer in Ho Chi Minh City.

CONCLUSION

Vietnam is well-placed to take advantage of the next wave of global App Economy growth. There will be increasing demand for people who can create, maintain, and support increasingly sophisticated apps that use the capabilities of 5G networks and AI-enabled devices being built around the world. App Economy skills are a powerful gateway to the digital future.

ABOUT THE AUTHOR

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2   "Vietnam Ranks 4th Globally in Mobile App Downloads: Report," *Tuoi Tre News*, July 22, 2023, https://tuoitrenews.vn/news/society/20230722/vietnam-ranks-4th-globally-in-mobile-app-downloads-report/74547.html.l

3   "The App Store Turns 10," Apple Newsroom, July 5, 2018, https://www.apple.com/newsroom/2018/07/app-store-turns-10/.

4   "Google Play," Wikipedia, accessed November 2023, https://en.wikipedia.org/wiki/Google_Play.

5   Countries include the United States, the countries of the European Union, the United Kingdom, Canada, Mexico, Argentina, Brazil, Chile, Japan, Korea, Australia, Vietnam, Thailand, Indonesia, and India. We have analyzed China's App Economy but have not published it because of data issues.

6   For Vietnam, we use the corresponding public database from Indeed.com, found at vn.indeed.com. Indeed, which bills itself as "the #1 job site in the world," offers a searchable continually updated database of job postings for more than 60 countries. Because of its global scope, it makes it easier to compare countries.

7   In addition to ILO data on ICT professionals and national statistical agencies, we use data from Github (https://octoverse.github.com/2022/global-tech-talent) and Stack Overflow (https://survey.stackoverflow.co/2023/#developer-profile-key-territories).

8   Based on government data, we make the reasonable assumption that each core App Economy job corresponds to one indirect App Economy job in the same organization. Next, we make the very conservative assumption that each core or indirect App Economy job generates 0.5 spillover jobs in the relevant geographic area.

9   Michael Mandel and Elliott Long, "The App Economy in Europe: Leading Countries and Cities, 2017," Progressive Policy Institute, October 2017, https://www.progressivepolicy.org/wp-content/uploads/2017/10/PPI_EuropeAppEconomy_2017_.pdf. Some pandemic-related updates to the European methodology can be found here: https://www.progressivepolicy.org/blogs/europe-app-economy-update-2021/. Our 2019 report in "The App Economy in India" adds further methodological details: https://www.progressivepolicy.org/wp-content/uploads/2019/09/PPI_IndianAppEconomy_V3-1.pdf.

10 "The App Economy in Vietnam, 2017."

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