

Technology Analysis & Strategic Management >
Volume 31, 2019 - Issue 12

2,824 12

Views

CrossRef citations to date

0

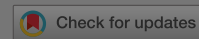
Altmetric

Articles

Huawei's catch-up in the global telecommunication industry: innovation capability and transition to leadership

Lei Guo, Marina Yue Zhang , Mark Dodgson & David Gann

Pages 1395-1411 | Received 12 Jan 2018, Accepted 24 Apr 2019, Published online: 14 May 2019

 Cite this article  <https://doi.org/10.1080/09537325.2019.1615615>

Sample our
Economics, Finance,
Business & Industry Journals
>> [Sign in here](#) to start your access
to the latest two volumes for 14 days

 Full Article Figures & data References Citations Metrics Reprints & Permissions

Read this article

ABSTRACT

Using Huawei as an example, this paper analyses the catch-up process of latecomers from emerging markets during their transition towards global technological frontiers. We designed innovative indicators using USPTO patent data and used them to measure Huawei's catch-up in an established and an emerging technology field. We measure

About Cookies On This Site

We and our partners use cookies to enhance your website experience, learn how our site is used, offer personalised features, measure the effectiveness of our services, and tailor content and ads to your interests while you navigate on the web or interact with us across devices. You can choose to accept all of these cookies or only essential cookies. To learn more or manage your preferences, click "Settings". For further information about the data we collect from you, please see our [Privacy Policy](#).

Accept All 

Essential Only

Settings

chmarked
findings
of its catch-
transition.
significant

Huawei China

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes

- 1

In 2013, Huawei overtook Ericsson to become the largest telecom manufacturer in the world, according to market research and consulting firm Infonetics Research (<http://www.infonetics.com/whitepapers.asp>).
- 2

In 2016, Huawei was ranked by Thomson Reuters among the most innovative one hundred firms in the world along with such innovative firms from advanced economies as Apple and Google. It is the only firm on this list from mainland China.
- 3

Huawei's Annual Report 2017, https://www-file.huawei.com/-/media/CORPORATE/PDF/annual-report/annual_report2017_en.pdf?la=en, accessed on July 9, 2018.
- 4

http://www.wipo.int/pressroom/en/articles/2018/article_0002.html, accessed on July 9, 2018.
- 5

We chose USPTO patent data for two principal reasons: first, the US is the world's most competitive telecommunication market, and, second, US patent information is one of the most comprehensive measures in innovation in the telecommunication industry (Godinho and Ferreira [2013](#)).
- 6

In 2000, only one non-telecommunication related patent was filed by Huawei at USPTO.
- 7

Due to informat
- 2012
- 8

In 200 Huawei's
- 9

The results are available upon request.



About Cookies On This Site

We and our partners use cookies to enhance your website experience, learn how our site is used, offer personalised features, measure the effectiveness of our services, and tailor content and ads to your interests while you navigate on the web or interact with us across devices. You can choose to accept all of these cookies or only essential cookies. To learn more or manage your preferences, click "Settings". For further information about the data we collect from you, please see our [Privacy Policy](#).

Accept All

Essential Only

Settings

10 It is worth mentioning that, as shown in [Figure 3\(b\)](#), Huawei achieved a breakthrough in the share of seminal patents in 2010, when our analysis of this dimension stopped. Since then the firm has made considerable progress in 4G technologies.

11 The numbers shown in these figures are the value of any specific firm divided by the group mean in any given year.

12 For example, leading business media (e.g., Forbes, CNBC and The Verge) reported that in 2017 Huawei became the second largest smartphone provider after Samsung.

Additional information

Funding

This work was supported by China Postdoctoral Science Foundation: [Grant Number 2018M633533]; National Science Foundation of China (NSFC): [Grant Number 71802157].

Notes on contributors

Lei Guo

Dr Lei Guo is an assistant professor in the School of Economics and Finance at Xi'an Jiaotong University, China. His research areas include patent portfolio analysis, technology strategy, and catch-up strategies for latecomers in the telecommunication industry from China.

Marina
Dr Mari
Sch
tec
countri
firms, a



About Cookies On This Site

We and our partners use cookies to enhance your website experience, learn how our site is used, offer personalised features, measure the effectiveness of our services, and tailor content and ads to your interests while you navigate on the web or interact with us across devices. You can choose to accept all of these cookies or only essential cookies. To learn more or manage your preferences, click “Settings”. For further information about the data we collect from you, please see our [Privacy Policy](#).

Accept All

Essential Only

Settings

Mark Dodgson

Mark Dodgson is Professor of Innovation Studies at the University of Queensland, and visiting professor at Imperial College London. His research interests include innovation management and policy.

David Gann

David Gann is Professor of Technology and Innovation Management at Imperial College London, and Chairman of the UK Atomic Energy Authority. His research interests include exploring why and how innovation happens, the ways it continually transforms the world we live in, and how it can be managed.

Related research

People also read


Recommended articles

Cited by 12



About Cookies On This Site

We and our partners use cookies to enhance your website experience, learn how our site is used, offer personalised features, measure the effectiveness of our services, and tailor content and ads to your interests while you navigate on the web or interact with us across devices. You can choose to accept all of these cookies or only essential cookies. To learn more or manage your preferences, click “Settings”. For further information about the data we collect from you, please see our [Privacy Policy](#).

Accept All 

Essential Only

Settings

Information for

Authors

R&D professionals

Editors

Librarians

Societies

Opportunities

Reprints and e-prints

Advertising solutions

Accelerated publication

Corporate access solutions

Open access

Overview

Open journals

Open Select

Dove Medical Press

F1000Research

Help and information

Help and contact

Newsroom

All journals

Books

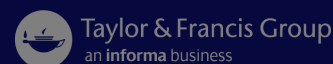
Keep up to date

Register to receive personalised research and resources by email

 Sign me up



Copyright © 2024 Informa UK Limited [Privacy policy](#) [Cookies](#) [Terms & conditions](#)



[Accessibility](#)

Registered in England & Wales No. 3099067
5 Howick Place | London | SW1P 1WG



About Cookies On This Site

We and our partners use cookies to enhance your website experience, learn how our site is used, offer personalised features, measure the effectiveness of our services, and tailor content and ads to your interests while you navigate on the web or interact with us across devices. You can choose to accept all of these cookies or only essential cookies. To learn more or manage your preferences, click “Settings”. For further information about the data we collect from you, please see our [Privacy Policy](#).

 Accept All

Essential Only

Settings