

GRC Perspective on Digital Economy

Isnaeni Achdiat

One Day Seminar

The Impact of Digital Era on Business Strategy and Conducts: Are Accountants Still on the Fore Front in Creating Value?

August 2017

Ver. 2.0

Disclaimer:

Bahan ini merupakan pendapat dan pandangan pemateri / presenter, dan tidak mewakili pandangan organisasi EY. Adapun risiko yang timbul dari penggunaan materi ini sepenuhnya menjadi tanggung jawab pengguna.

#1

Microchips for humans



- ▶ A recent study showed that 75% of British parents would buy a microchip to keep track of their child's location. Brazilian millionaires are already chipping their kids to thwart kidnappers. At least 15,000 people worldwide are already microchipped for business and health monitoring. Chip implant kits complete with a sterile injector system can be purchased online for 99\$.
- ▶ Microchips and Internet-enabled medical devices represent a global market estimated at \$160bn by 2025. Biometric information from your implanted microchip may soon find its way to your health insurance provider or to a digital technology platform provider.
- ▶ Eric Schmidt (Google's Chairman) said at the World Economic Forum "you won't even sense it; it will be part of your presence all the time"
- ▶ Elon Musk said "humans must become cyborgs to stay relevant".
- ▶ Brain implants will follow within the next 10 to 15 years. Further explanation: https://en.wikipedia.org/wiki/Brain_implant
- ▶ <https://www.youtube.com/watch?v=ZmgEXDdkU-8> (1.21 minutes) > Published on Mar 18, 2017



FDA

Since 2004
The FDA
has approved
computer microchips
for humans



0:03 / 1:21






- ▶ **Digital transformation: are you ready for exponential change?** Futurist Gerd Leonhard, TFASudios

<https://youtu.be/ystdF6jN7hc> (3.59 minutes)

- ▶ **From automation, robotic process automation, and now intelligence automation**
- ▶ **Industrial Revolution-4** <https://www.youtube.com/watch?v=NNm5ucdHz8c> (IR 1 – 4) (1.41 minutes)
- ▶ **Blockchain - Distributed Ledgers - Why Wall Street Is Embracing the Blockchain—Its Biggest Threat?**

<https://www.wired.com/2016/02/wall-street-is-embracing-the-blockchain-its-biggest-threat>


Up next
Autoplay



Digital transformation: are you ready for exponential change? Futurist Gerd Leonhard, TFASudios


Gerd Leonhard
251,488 views

Business as usual is dead. Increasingly, science fiction is becoming science fact. Exponential technologies are rapidly changing our lives and societies, every day, everywhere. We will need..



The Fourth Industrial Revolution

World Economic Forum
99,135 views
<http://www.weforum.org/>



World Economic Forum | Center for the Fourth Industrial Revolution

World Economic Forum
3,679 views
<http://www.weforum.org/>



Volatility occurs when the nature, speed and size of change are unpredictable.

Vision rises above Volatility. When things are changing unpredictably, it is vital to keep a clear focus on the overall vision. Knowing where we are heading will ensure that we stay on course when external circumstances are turbulent. The risk practitioner should maintain a relentless emphasis on objectives to ensure that risk responses keep the project or business on track. When things are changing unpredictably around you, keep your eyes on the goal.

Uncertainty arises from lack of knowledge or an inability to determine the course of future events.

Understanding reduces Uncertainty. The risk practitioner will help colleagues to make sense of uncertain situations, and guide them towards a deeper grasp of what is going on. As we understand our environment, uncertainty is reduced and we can move forward with confidence. When you encounter uncertainty, explore and experiment in order to increase your understanding.

Complexity is present when the outcome of an action cannot be predicted by simple analysis.

Clarity counters Complexity. It allows the risk practitioner to cut through unnecessary and confusing detail, focusing instead on the core elements of the situation: what is the risk and how can it be addressed? When faced with complexity, seek to simplify wherever possible.

Ambiguity means that key characteristics of a situation are not clear or they can be interpreted in different ways.

Agility overcomes Ambiguity, retaining the freedom and flexibility to respond quickly to changing circumstances. The agile practitioner keeps their options open and prepares a range of potential responses. As the situation unfolds and ambiguity resolves into certainty, they are able to cope. When the future contains multiple alternatives, be ready to adapt your approach to match the eventual outcome.



- ▶ Terbentuknya BSSN – sangat positif dalam menghadapi CyberRisk, melindungi critical infrastructure di Indonesia
- ▶ Ransomware sebuah kegiatan kriminalitas yang canggih; terorganisir dan memiliki helpdesk serta menerima pembayaran bitcoin
- ▶ Kondisi ini akan membuat permasalahan CyberRisk menjadi semakin transparan dan dapat meningkatkan awareness bagi pelaku usaha
- ▶ Berkembangnya Cyber-Insurance (sesuai prinsip A-CAT: Avoid, Control/Mitigate, Accept, Transfer)



- ▶ GRCP (GRC Professional) mesti proaktif dalam mengembangkan risk intelligence/data, dalam setiap inisiatif digital transformation, yang adaptable terhadap potensi perubahan (konfigurasi) sistem. Untuk itu dibutuhkan built-in automated control dan pengumpulan & pelaporan risk data/information.
- ▶ GRCP dapat berperan memberikan perspektif risiko, disain pengendalian dan mengevaluasi efektifitas disain serta operasional suatu pengendalian.
- ▶ GRCP perlu membangun suatu disain pengendalian yang responsif terhadap risiko dan mengembangkan sistem informasi manajemen risiko yang berbasis data.
- ▶ Keahlian Risk Data Scientist (DS sebagai pekerjaan paling seksi di abad 21, menurut HBR), perlu dikembangkan, agar nantinya bisa menerapkan *predictive risk analytic*.

Note: GRCP is an individual that spends substantial time helping an organization achieve principled performance by leading, planning, performing, enabling, integrating or auditing governance, performance management, risk management, internal control, compliance or ethics activities.



- ▶ Inovasi dalam era digital tidak boleh melanggar nilai-nilai kemanusiaan dan etika. Peran GRC Auditor memberikan assurance bahwa suatu produk atau layanan (solusi), selain dapat memberikan nilai tambah, tetap harus patuh pada hukum dan etika yang berlaku di masyarakat
- ▶ GRC Auditor harus mengedepankan aspek Humanity dibandingkan hanya melihat aspek Technology semata, dalam memberikan assurance service kepada management. Hal ini karena GRCA dapat berperan dalam mempengaruhi perilaku (impacting behaviours) yang positif dalam organisasi dan masyarakat. Perilaku positif sangat dibutuhkan dalam menyambut era digital dan dimasa mendatang.
- ▶ Auditor dapat dibantu oleh dan mendapat dukungan dari Teknologi, namun fungsi dan perannya tidak bisa digantikan (God > Human > Robot)



- ▶ Recognizing the important role that the internal audit function plays in a corporate governance system of an organization, the Institute of Internal Auditors has issued a standard no. 2110 on 'Governance' (issued April 2010) which states that "An effective internal audit function provides assurance that there are appropriate corporate governance processes and internal control procedures in place.
- ▶ The internal audit activity should assess and make appropriate recommendations for improving the governance process in its accomplishment of the following objectives:
 - ▶ Promoting appropriate ethics and values within the organization
 - ▶ Ensuring effective organizational performance management and accountability
 - ▶ Effectively communicating risk and control information to appropriate areas of the organization
 - ▶ Effectively coordinating the activities of and communicating information among the board, external and internal auditors and management."
- ▶ Effective internal audit functions help organizations accomplish their business objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of governance, risk management and control process.

Source: <https://na.theiia.org/standards-guidance/Public%20Documents/IPPF-Standards-2017.pdf>

Thank You



ISACA Innovation Insights

▶ COBIT 4.1 (IT Governance & Control)

▶ Risk IT

▶ Val IT (IT Value Delivery)

▶ BMIS (Business Model For Information Security)

▶ IS Audit and Assurance

▶ Research

All Deliverables

White Papers

Cloud Computing Guidance

Cybersecurity Resources

Privacy Resources for You and Your Enterprise

Audit/Assurance Programs

▼ ISACA Innovation Insights

▶ Academia

▶ eLibrary

▶ Glossary

Timely and authoritative information designed to help enterprise leaders be more agile in strategy-setting and execution by evaluating both the opportunities and risks of new technology.

ISACA has launched a new service to provide easy to use, timely, relevant, and unbiased information to organizational leaders at board and C-suite levels to help them more quickly adapt to changing information technology. This information includes insights into both the opportunities and risks of new technology and is designed to help enterprises be more agile in establishing or modifying strategy in a constantly changing world. These reports are designed to help governance teams understand -- without technical jargon -- what innovations matter to them, how those innovations change their competitive landscape, and how to engage their management teams relative to these new areas.

The Insights service is comprised of a periodic research report (the *ISACA Innovation Insights* report), within which the most important new emerging technology trends are objectively evaluated based on their ability to provide value to your organization. Supplemental "drill-down" reports (ISACA Trend Reports) provide executive and governance-focused guidance on individual trends.

Access Reports

Innovation Insights

Big Data Analytics

Mobile Technologies

Cloud Computing

Machine Learning

Scoring Calculations

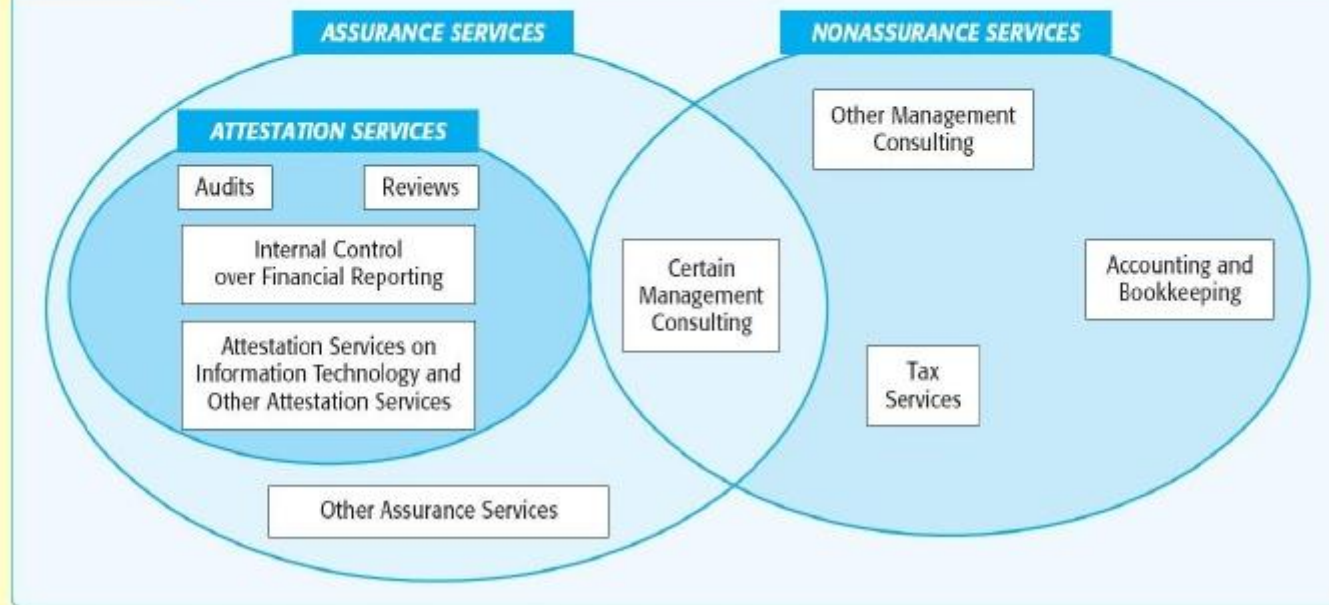
Innovation Insights

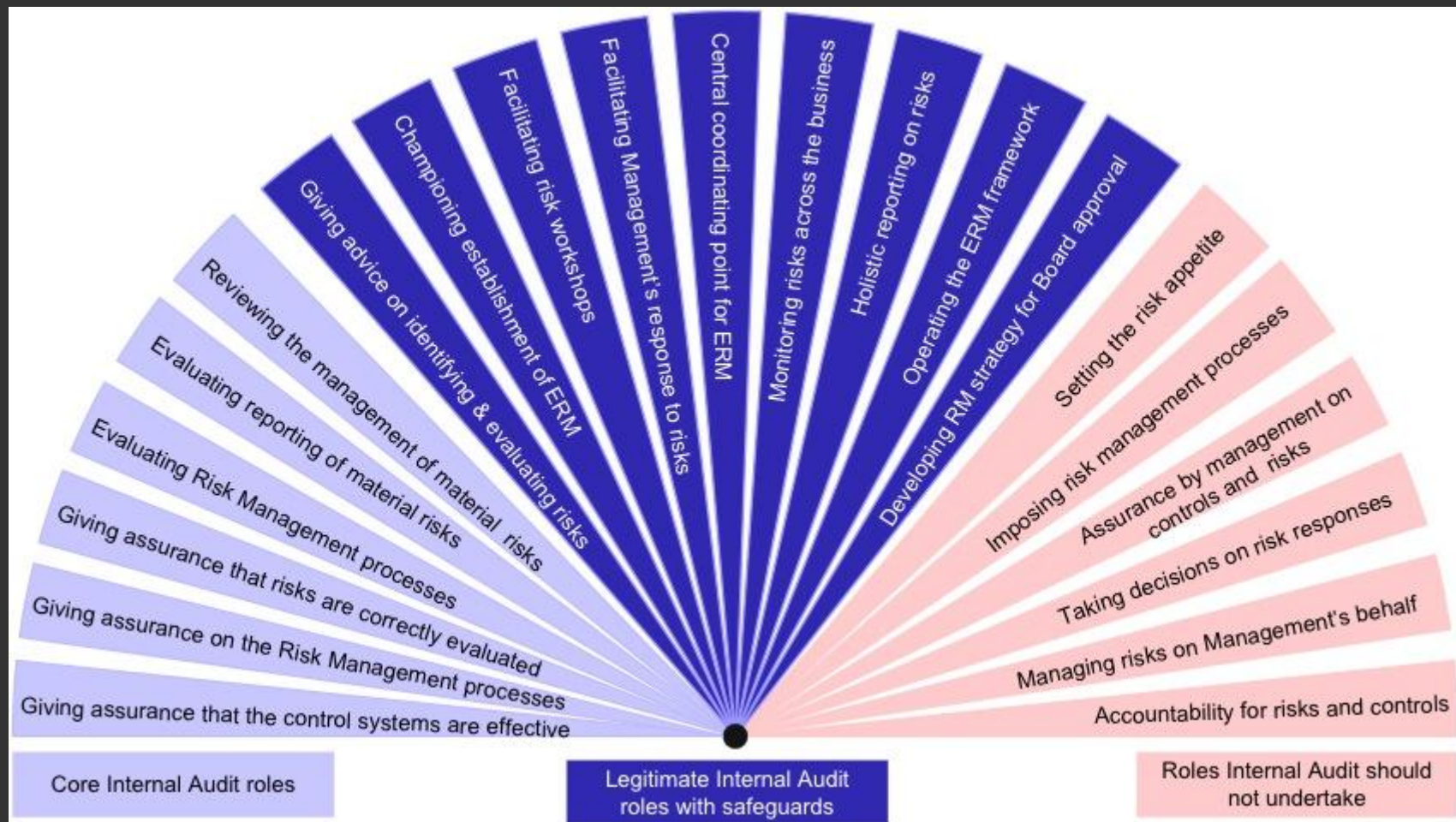
It is clear that digital technologies will remain a major driver of business innovation for the foreseeable future. Businesses that adopt the right trends—innovate around them and/or integrate them into the fabric of their operations—are more likely to strengthen their competitive advantage and prosper. Those that don't, won't.



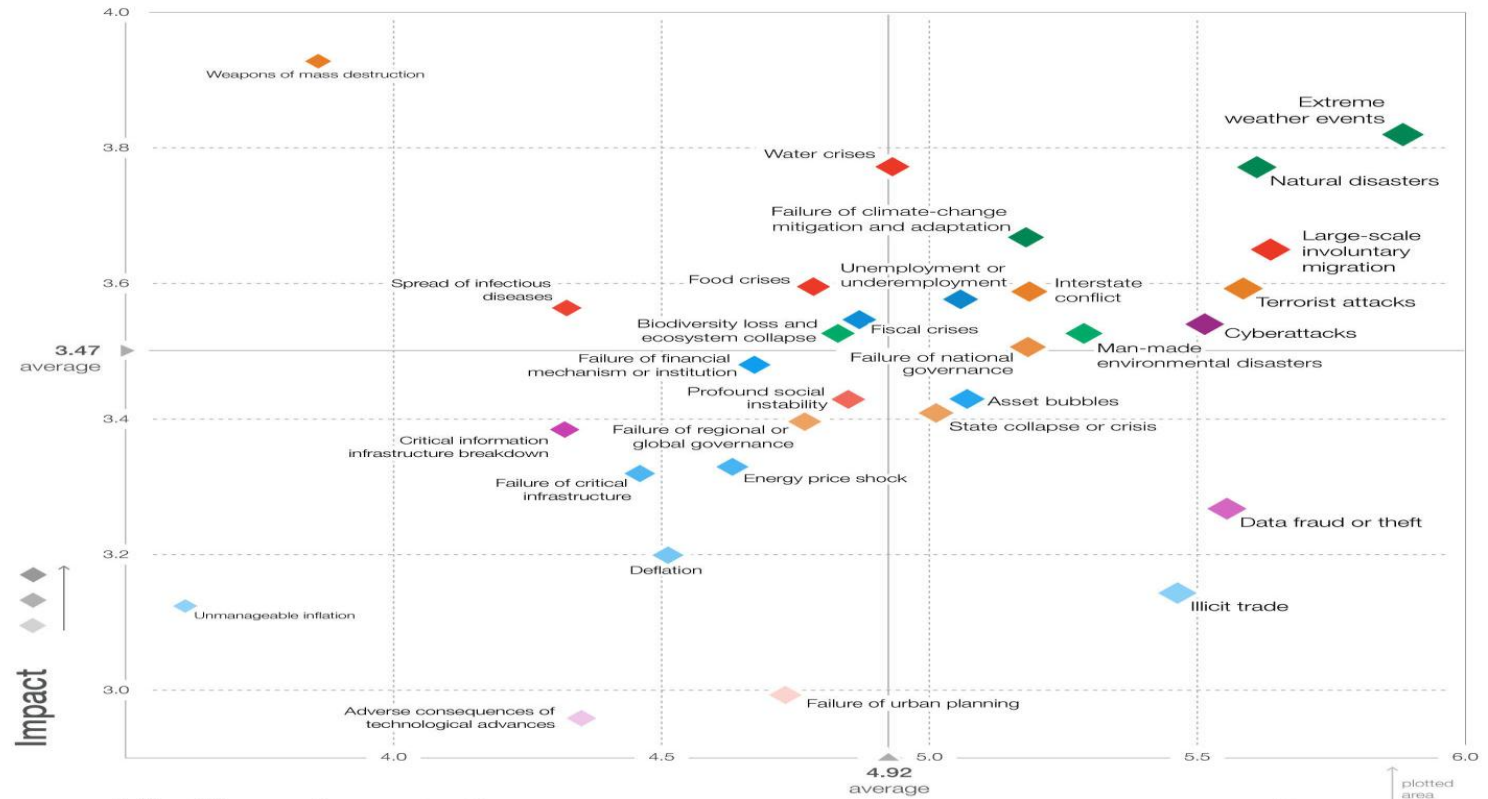
Assurance, Attestation, and Nonassurance Services

FIGURE 1-3 Relationships Among Assurance Services, Attestation Services, and Nonassurance Services





Global Risks Landscape



Impact

Likelihood

Top 10 risks in terms of Likelihood

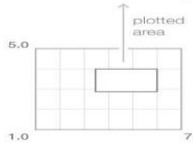
- 1 Extreme weather events
- 2 Large-scale involuntary migration
- 3 Natural disasters
- 4 Terrorist attacks
- 5 Data fraud or theft
- 6 Cyberattacks
- 7 Illicit trade
- 8 Man-made environmental disasters
- 9 Interstate conflict
- 10 Failure of national governance

Top 10 risks in terms of Impact

- 1 Weapons of mass destruction
- 2 Extreme weather events
- 3 Water crises
- 4 Natural disasters
- 5 Failure of climate-change mitigation and adaptation
- 6 Large-scale involuntary migration
- 7 Food crises
- 8 Terrorist attacks
- 9 Interstate conflict
- 10 Unemployment or underemployment

Categories

- Economic
- Environmental
- Geopolitical
- Societal
- Technological





How a blockchain works

