

Honeywell



How technology can improve operations and bring your business closer to your customer

OPERATING A BUSINESS IN THE GLOBAL ECONOMY has become increasingly difficult over the last few years. With companies operating globally on at least *some* level, the impact of these challenges is being felt across all industries and involves entities of all sizes. New compliance and regulations, changing consumer demands, rising transportation costs, and the need for good technology and communication can all affect the way goods move around the globe. These impacts can be felt both in mature and developing markets—but the challenges specific to each can vary greatly.

“Business has gone global over recent decades and the globalization of trade and commerce has brought, along with opportunities such as production efficiency, many risks—from environmental to economic and political,” according to the World Economic Forum. “Yet, making long-term investment decisions in an increasingly more complex and ambiguous environment is not an easy task, as the resilience of any individual business depends heavily on the resilience of its suppliers and purchasers, whose supply chains can span many countries.”¹

Gaining visibility over the supply chains that span many countries while achieving profitability goals and satisfying the evolving needs of customers is an ongoing challenge for most companies. To better understand the challenges that global organizations are facing, and which strategies are being embraced to streamline and improve transportation and logistics operations, *Logistics Management* and Honeywell, Inc., conducted a study examining these issues. As adoption is likely to vary globally, our research on the findings will distinguish between mature and growth markets. Mature markets are seen as the U.S., Canada, and the European Union, while growth markets are Mexico, the Caribbean, Latin and South America, META (Middle East, Turkey, Africa), India, China and the Pacific Rim.

The challenges: Cutting costs, developing supply chain process efficiency and improving customer service

Reducing operational costs is a key challenge that businesses around the world are dealing with today. Improving process efficiencies, generating new business, and leveraging growth opportunities are other main goals that companies are addressing. In more closely examining the issues facing both the mature and growth markets, the developing countries tend to be more focused on optimizing resources, improving supply chain visibility, and setting tighter government and safety regulations. Finding and maintaining skilled workers is a greater priority for businesses in the United States, Canada, and EU countries. (See Figure 1.)

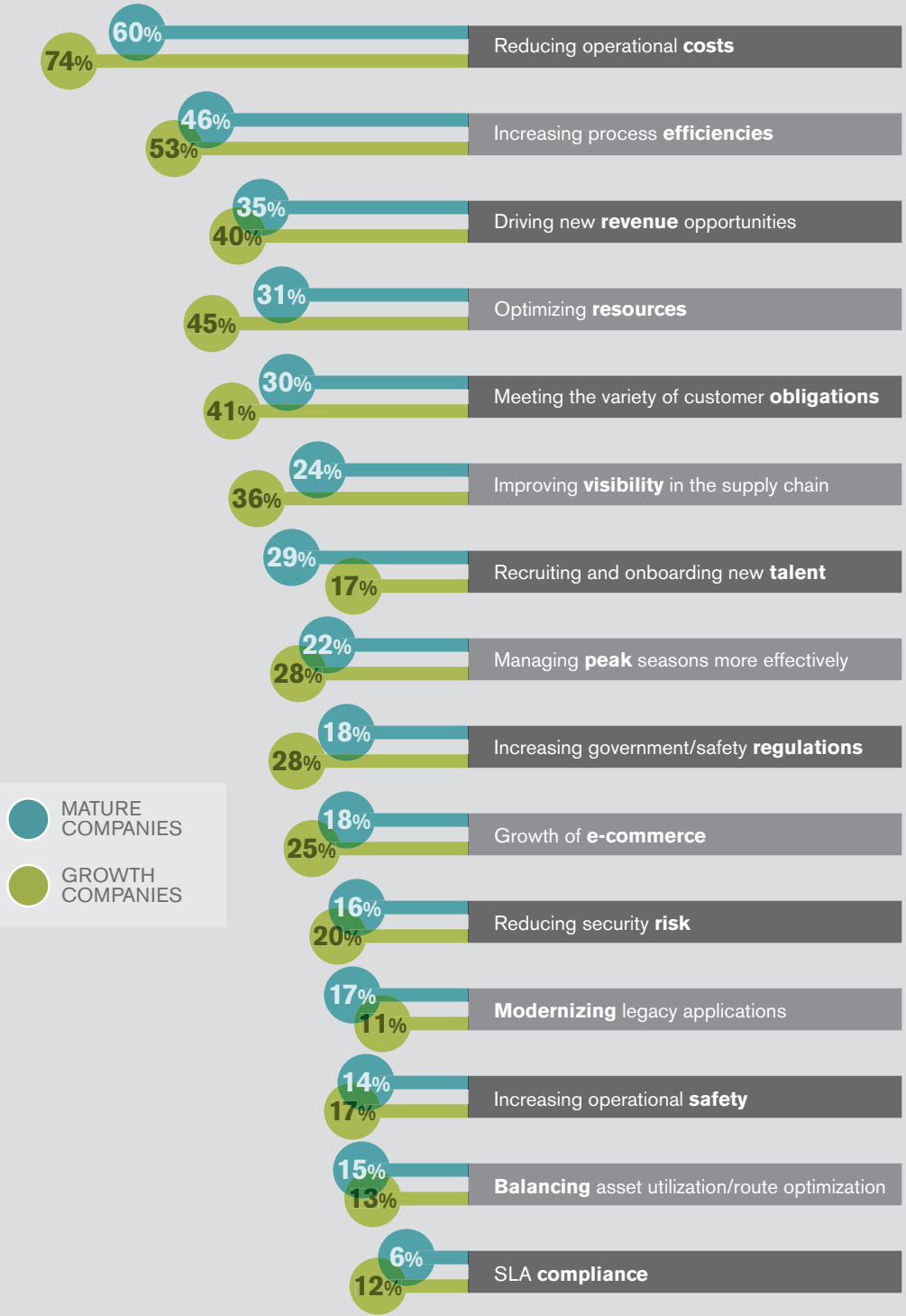


¹ Marti, Gaëlle, What are the top global risks for doing business?, World Economic Forum, January 2016.

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FIGURE 1

CHALLENGES AHEAD The main business challenges companies are/will be dealing with



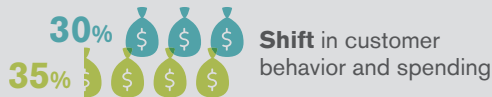
● MATURE COMPANIES
● GROWTH COMPANIES

FIGURE 2

THE BOTTOM LINE

Top issues
effecting profitability
and growth in 2016

(Rated highly concerned)



MATURE COMPANIES
 GROWTH COMPANIES

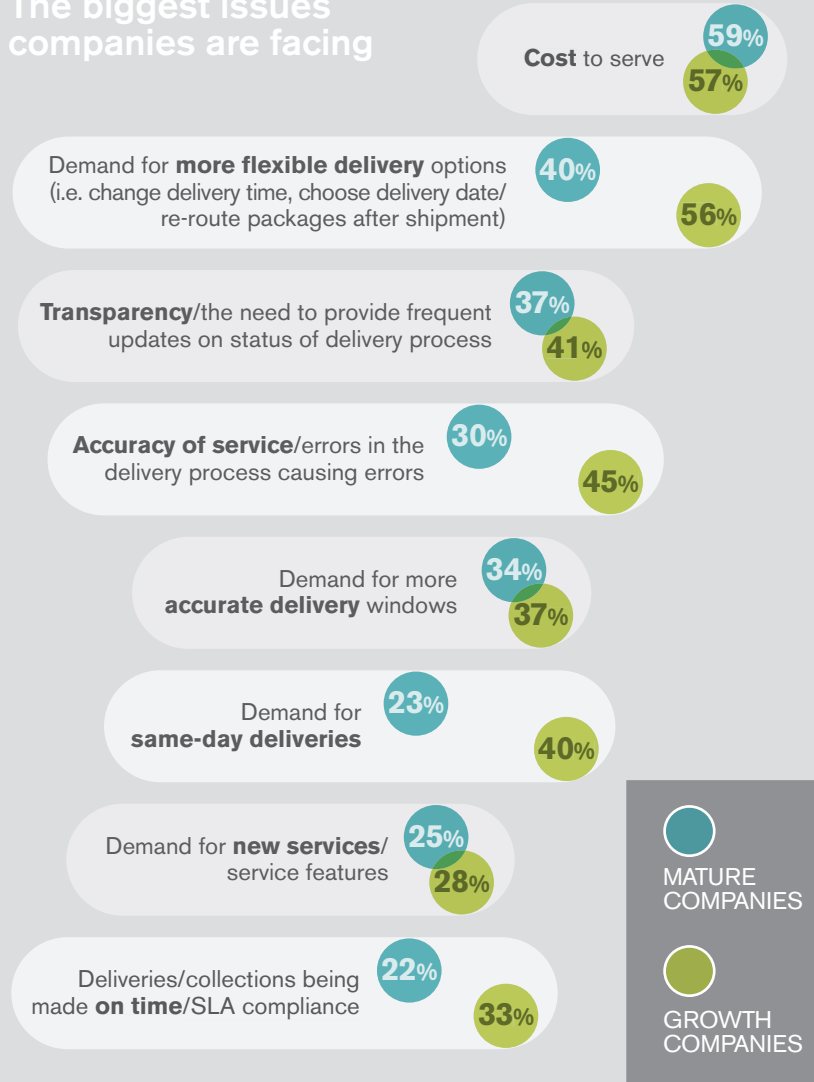
In terms of their financials and bottom lines, businesses are seeing their profitability negatively impacted by rising costs and the need to maintain service levels in order to match customers' growing expectations and demands. Other key issues include increased cost pressure from customers, changing regulations, and the need for better data security. While availability of skilled labor is less of an issue in the growth regions, organizations as a whole continue to experience growing pains and a higher number of challenges overall. (See Figure 2.)

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FIGURE 3

TOP CHALLENGES

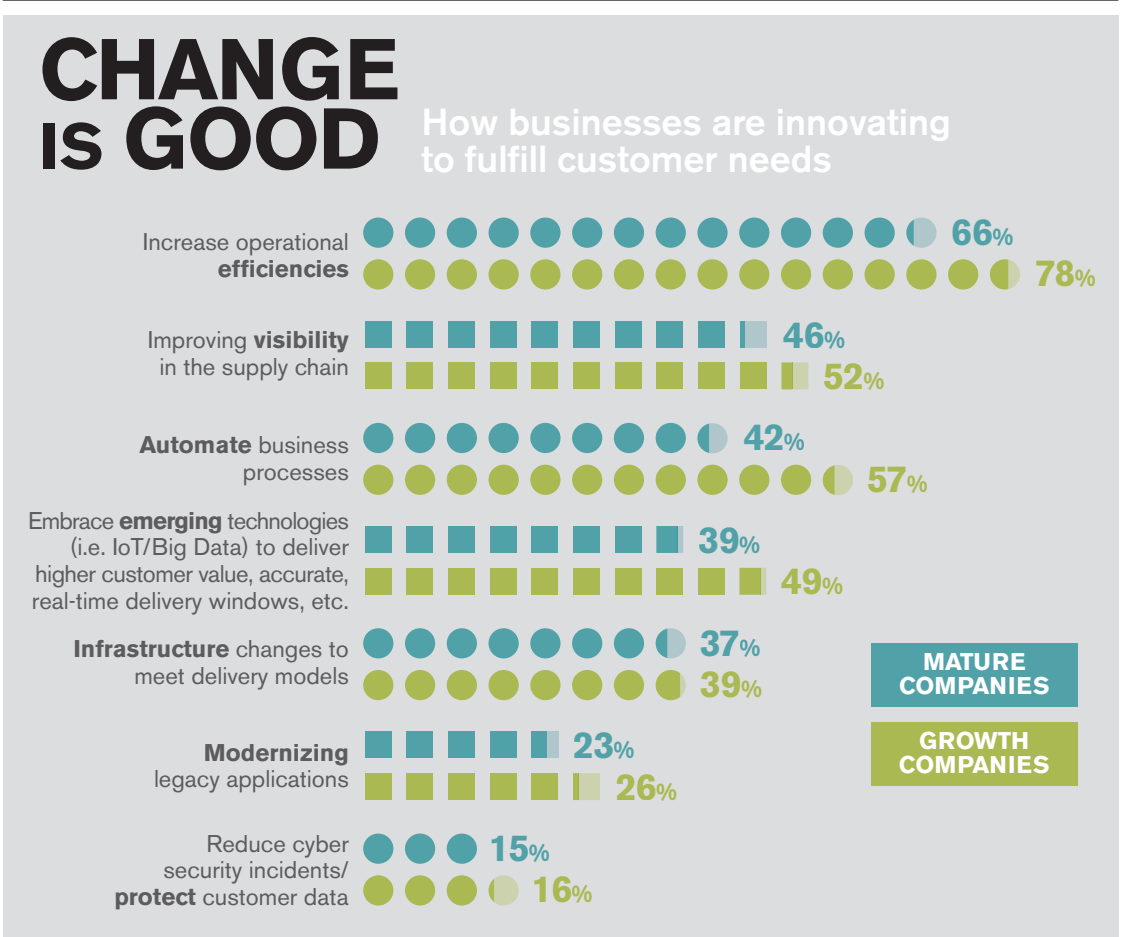
The biggest issues companies are facing



More specifically, order fulfillment and shipping pressures related to mounting customer demands are making it more expensive to service those customers. For example, customers want increased flexibility in shipment delivery options (i.e., day, time, routing, etc.) and greater visibility into order movement. In developing countries, matters such as shipment flexibility and same day delivery, reducing order processing errors, and complying with service level agreements are all greater issues than in the mature markets. (See Figure 3.)

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FIGURE 4

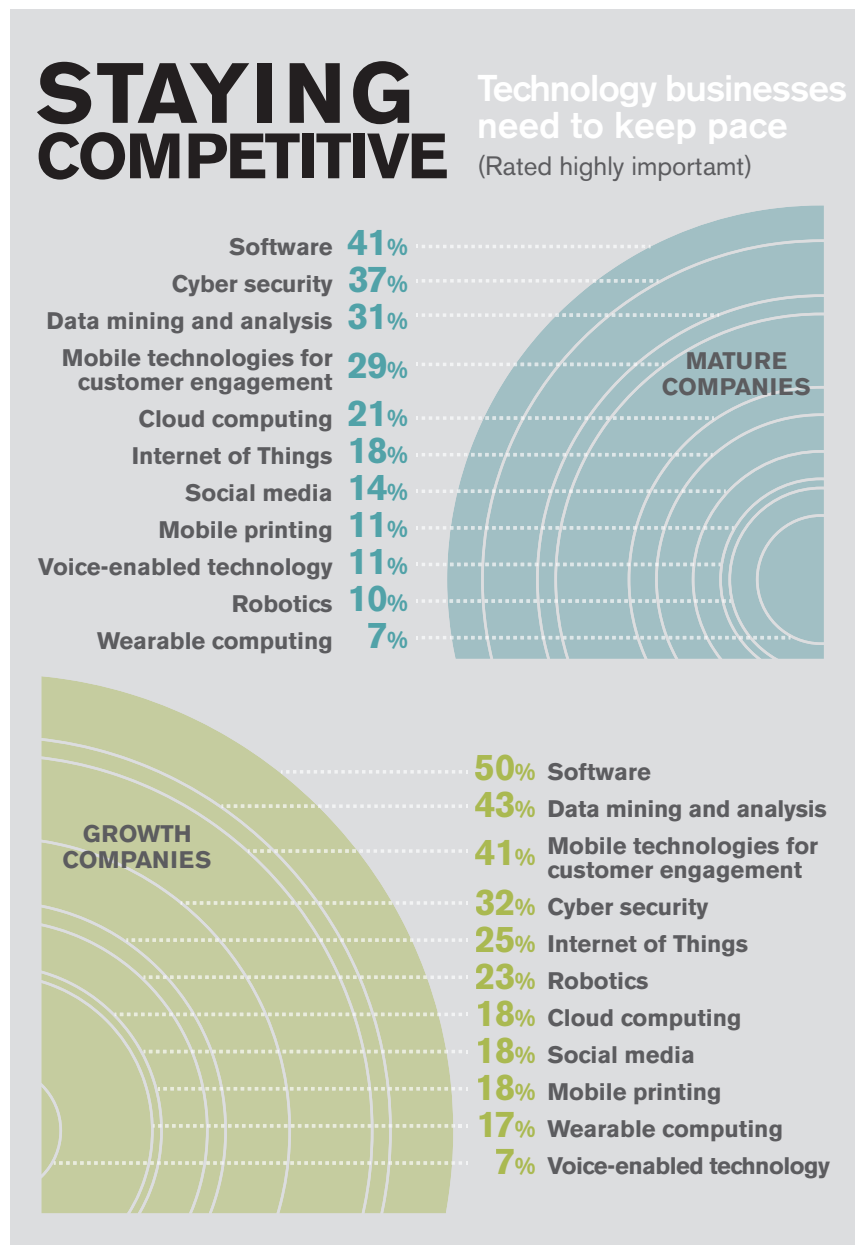


Changes are on the horizon

To better meet fulfillment-related demands, most companies are looking to process improvements such as improved operational efficiencies. Others are upgrading their supply chain visibility capabilities, boosting business process automation, implementing mobile solutions, adopting cutting-edge technologies, implementing software applications and tools, and performing data mining and analysis. These investments are all being made with the goal of meeting current and future order fulfillment and shipping objectives. (See Figures 4 and 5.)

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FIGURE 5



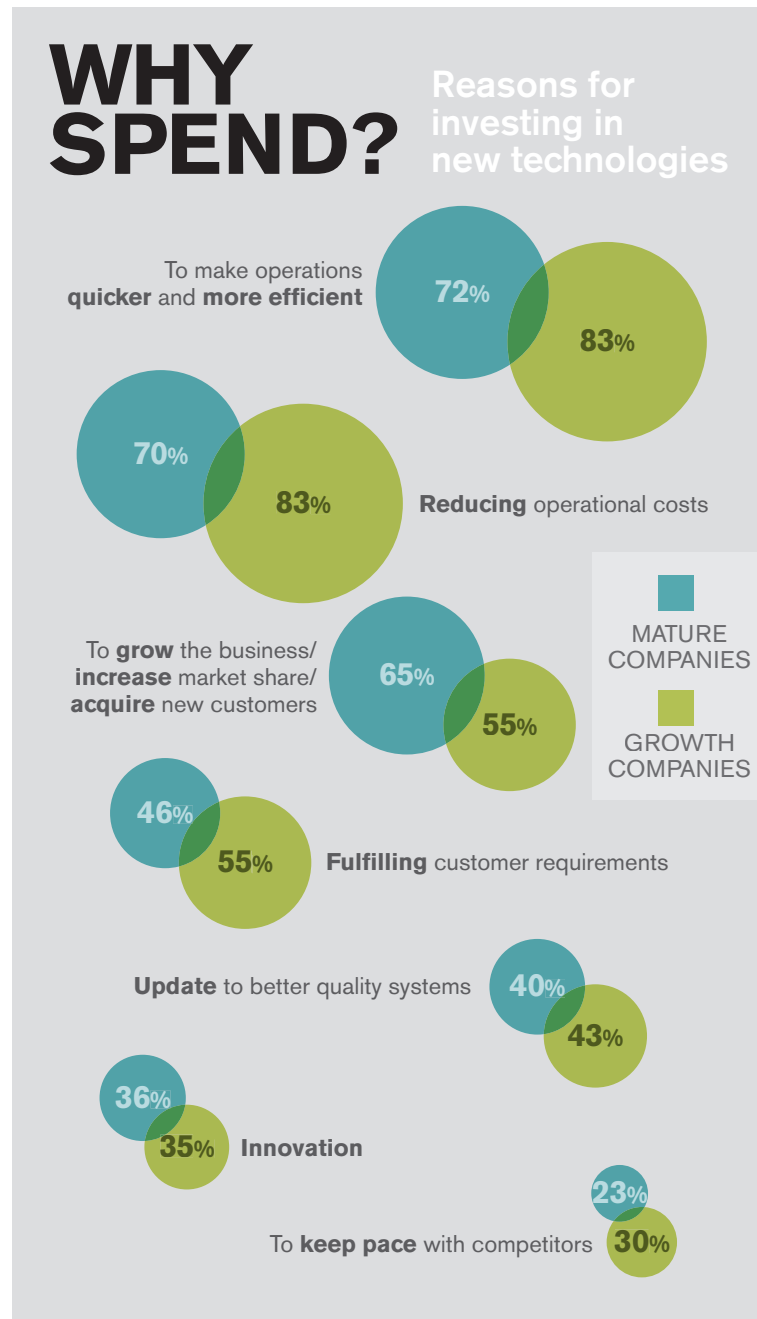
Less than one-half (44%) of companies in developed markets say they will invest in new technologies for warehousing, transportation, and logistics, while companies in the growth markets are more likely to invest in solutions across these operational disciplines. Over one-half (52%) plan to spend on technology during the next year, while 40% are noncommittal; less than one out of 10 respondents affirm they

have “no plans” to invest in technology for warehousing and logistics. By comparison, one-fourth of businesses in mature markets expect to hold off on spending on warehousing, transportation, and logistics technology in the upcoming next year. Those companies that do plan to invest in new technologies expect their spending levels to increase.

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When asked why they will invest in new technologies, most companies are focused on attaining greater operational speed and efficiency—and at a reduced cost. Organizations operating in the more mature markets want to leverage new technology in order to grow their businesses, increase market share and acquire new customers. (See Figure 6.)

FIGURE 6



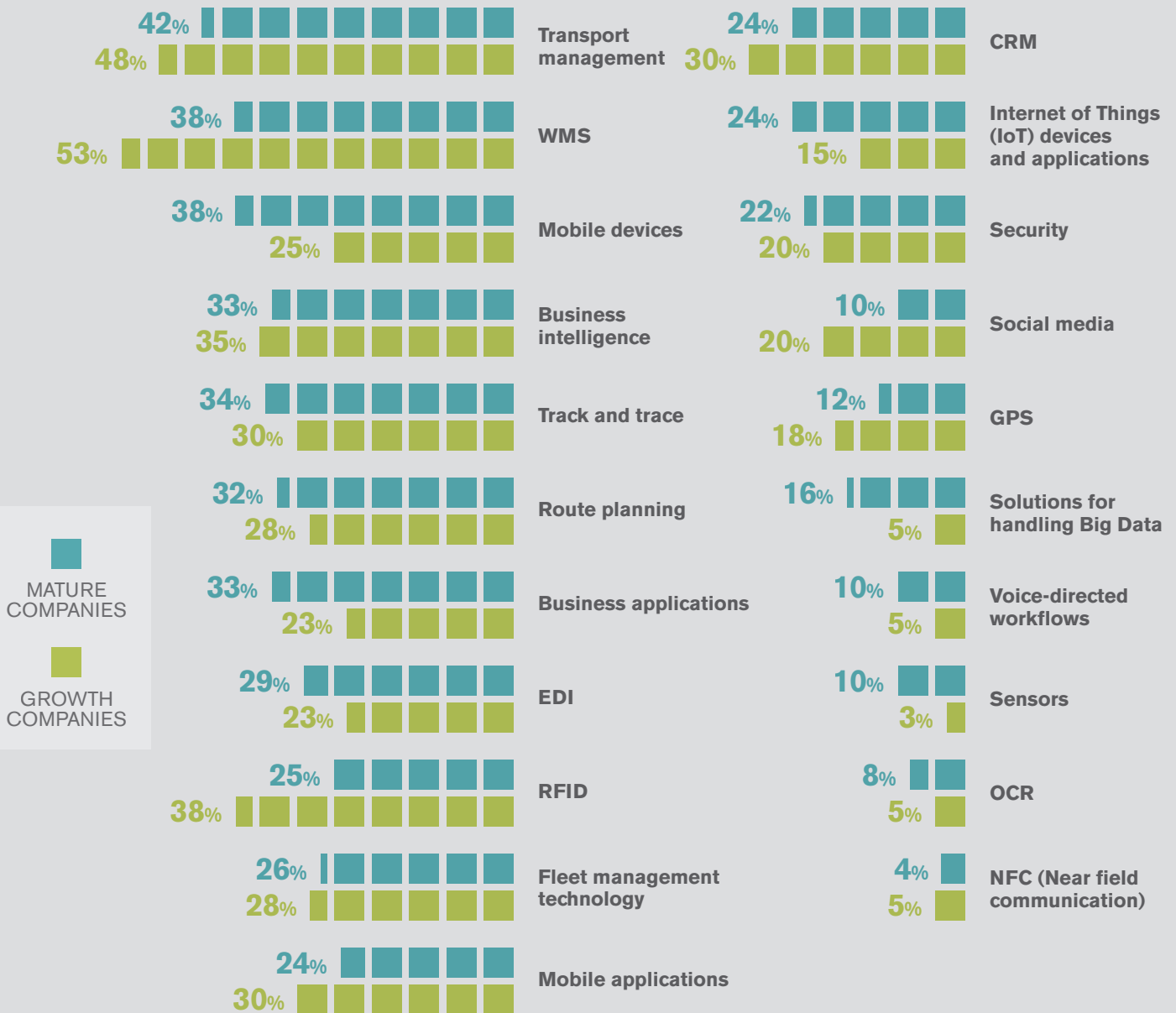
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In particular, companies plan to spend on transportation management solutions (TMS), warehouse management systems (WMS), mobile devices, business intelligence software, and applications that facilitate order tracking and supply chain visibility. Within the growth markets, companies are more inclined to spend on WMS, RFID systems and social media apps. Adopting and spending on vanguard solutions such as mobile, business productivity tools, and applications for managing Big Data lag behind companies in more developed regions. (See Figure 7.)

FIGURE 7

LOOKING AHEAD

Where companies will be investing
over the next 12 months



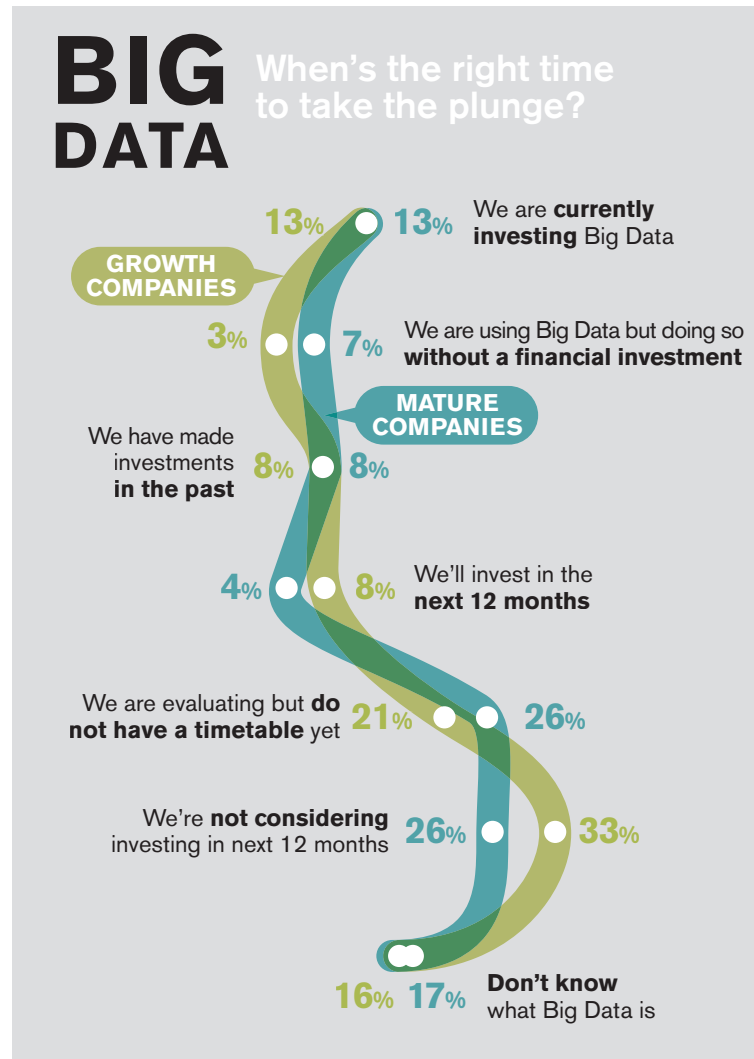
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The future supply chain

Big Data

Roughly one out of three companies in both market segments are currently using, investing, or planning to invest in solutions to generate and analyze Big Data—or, those extremely large data sets that can be analyzed to reveal patterns, trends, and associations (especially relating to human behavior and interactions). For most companies, however, the concept and adoption of Big Data is still in the early stages. One out of four (26%) of those firms in developed regions and one-third (33%) of companies in growth markets have no plans at the present to invest in Big Data. Furthermore, about one in six don't even know what Big Data is! (See Figure 8.)

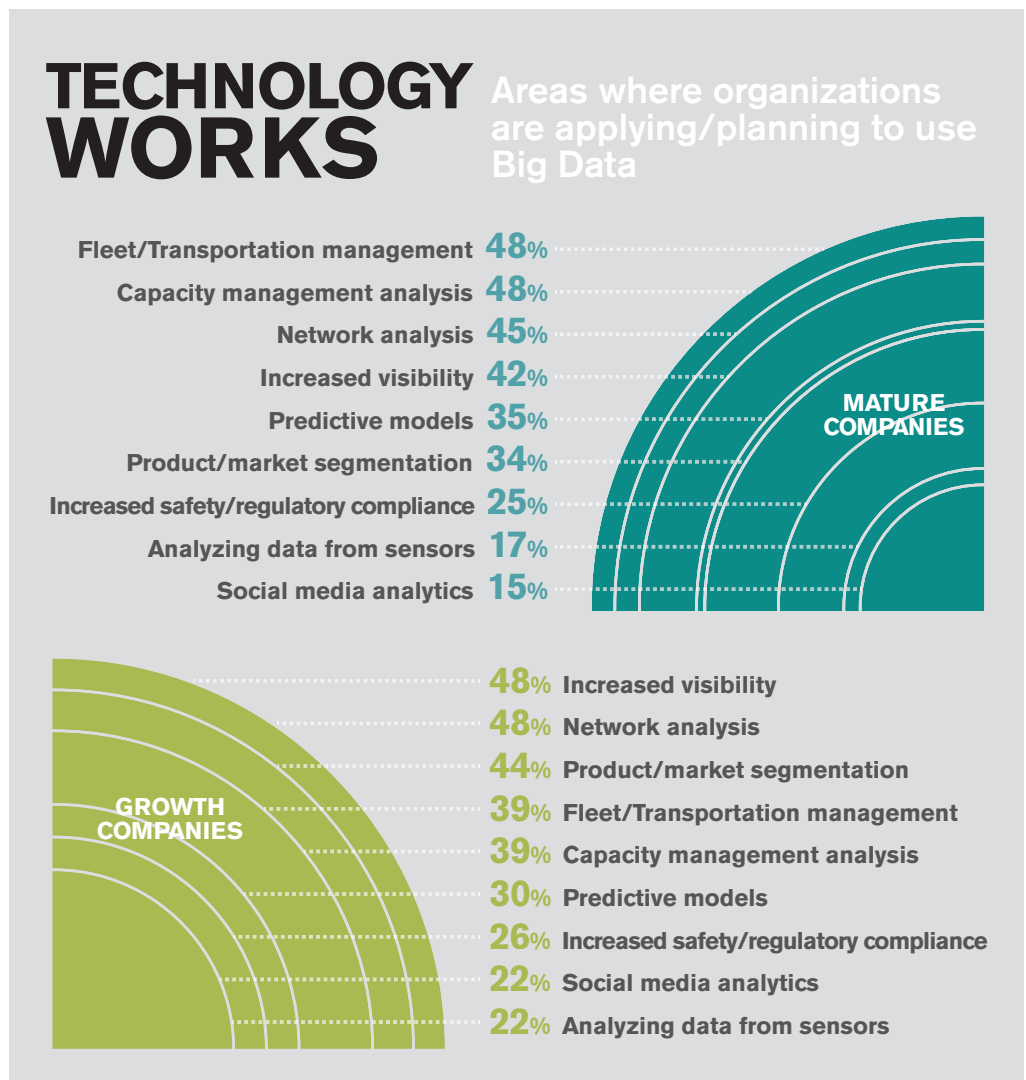
FIGURE 8



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Among those leveraging or planning to use Big Data, analytics is the most common tool for understanding information associated with fleet and transportation, capacity management, visibility, and network management. (See Figure 9.)

FIGURE 9



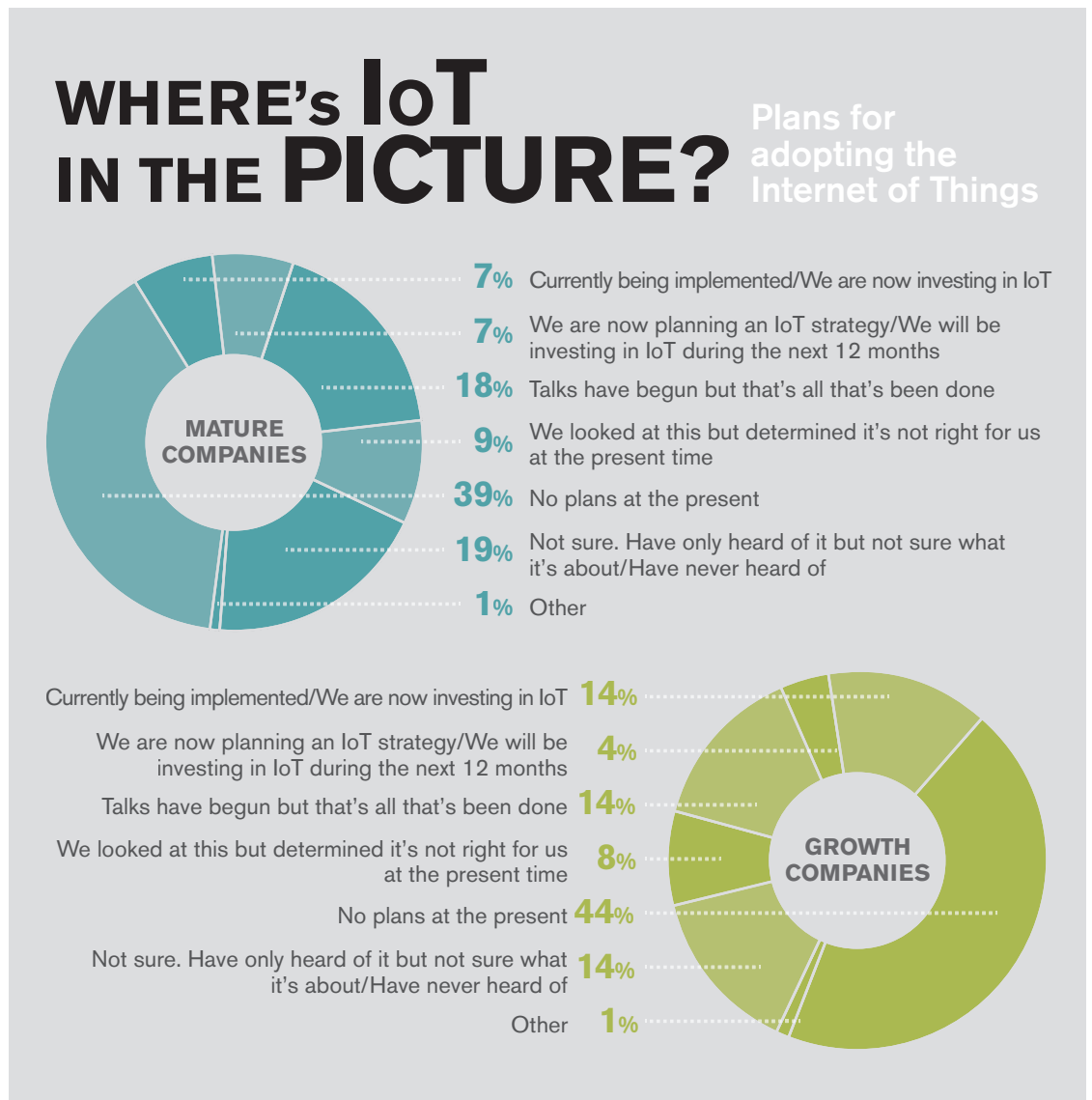
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The Internet of Things

Interestingly, the growth markets appear to be slightly ahead of the mature markets when it comes to embracing Internet of Things (IoT)—or, the network of physical objects (i.e., devices, vehicles, buildings, etc.) embedded with electronics, software, sensors, and

network connectivity that enables these objects to collect and exchange data. However, survey results show that the mature markets will be catching up over the next 24 months, as planning and discussions for IoT platforms are underway with businesses in these regions. (See Figure 10.)

FIGURE 10



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“It’s worth exploring but we’re not sure just yet how it will be utilized effectively.”
Vice President, Logistics; United States; \$500M - \$1B in annual revenues

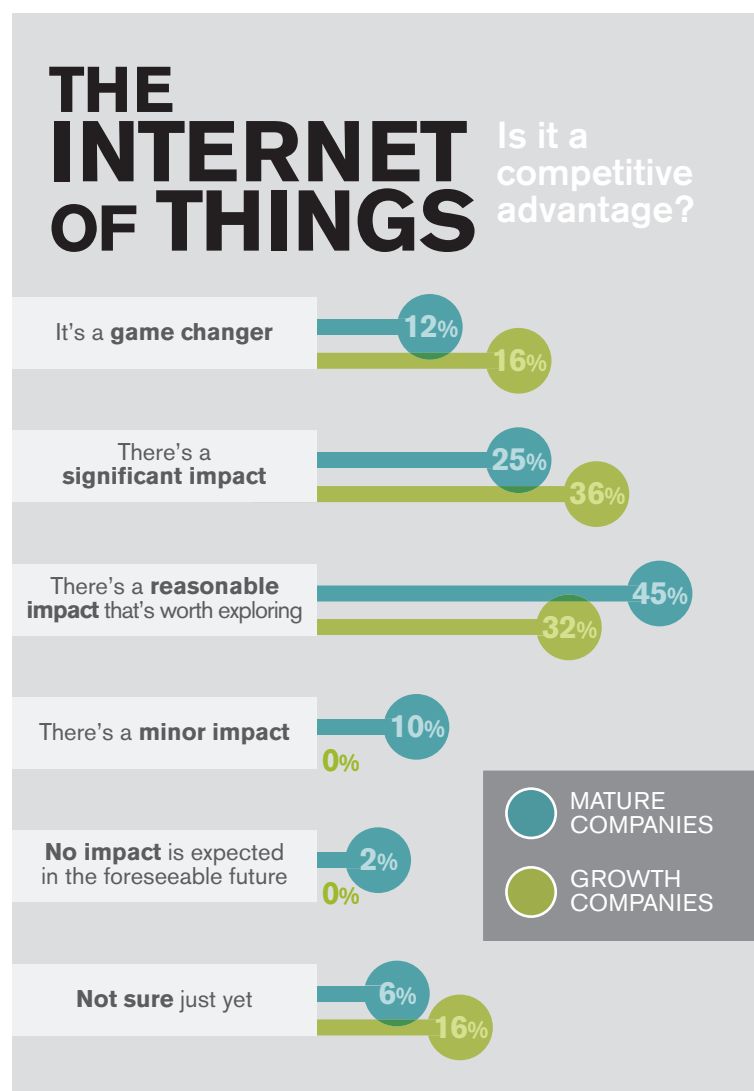
“With the dynamic nature of our processes and our vendor processes, we need to further explore methods to adopt and use across our network.”
Director of Supply Chain Operations; China; \$2.5B

“We deal with many global clients whose technology levels are extremely varied and therefore IoT has potential but what that is, is yet to be fully understood!”
President; Africa: <\$50M

“This will be a real game changer and put us on a different perspective level with our customers.”
Vice President; United States; \$250M - \$500M

“The Internet of Things will have a significant impact. We need to be ready for the future and are open to any solution to help us reduce costs by giving better service to our customers.”
President; India; \$50M - \$100M

FIGURE 11

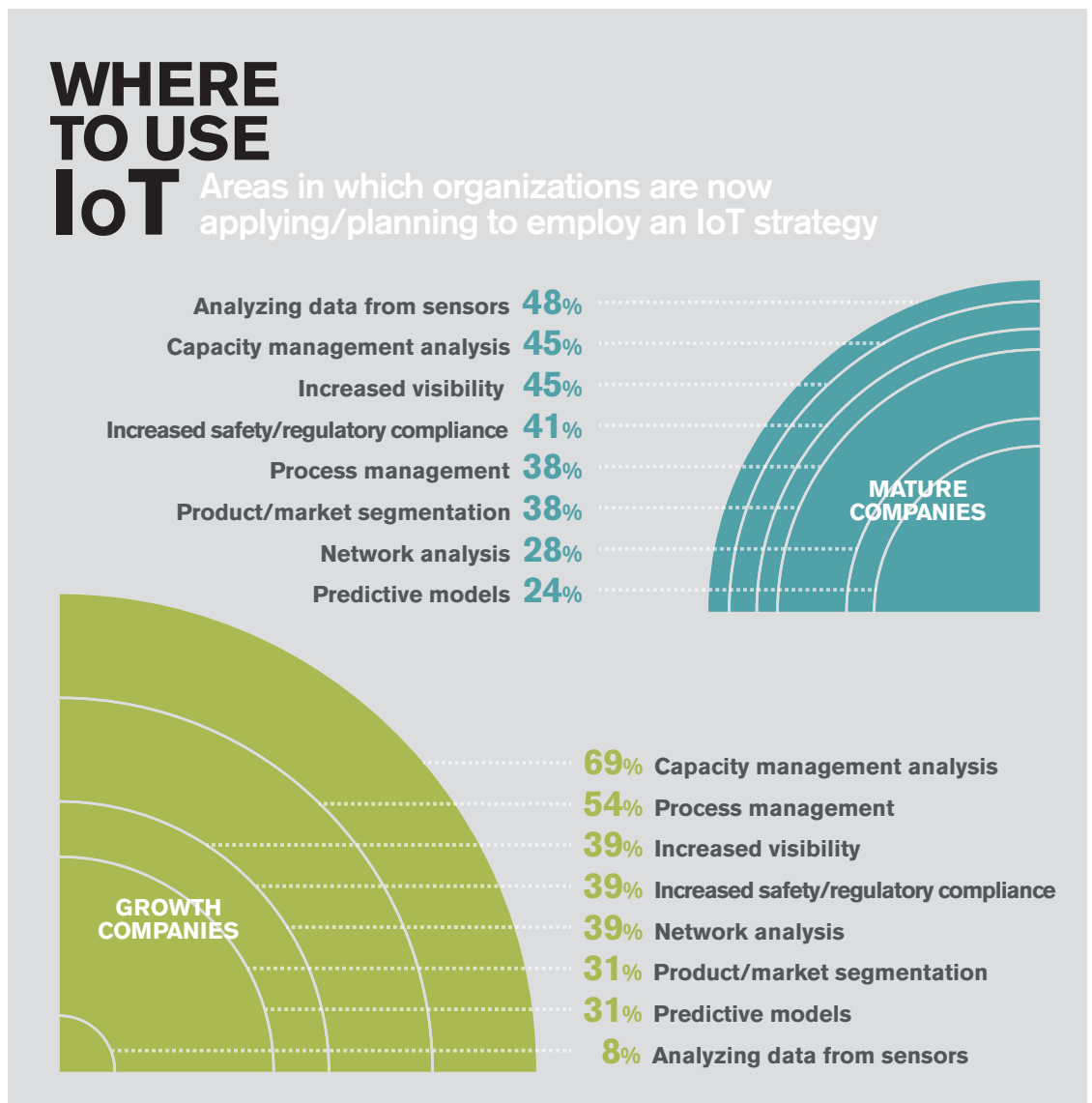


Organizations feel IoT can affect their organization’s ability to be highly competitive in their respective marketplaces. In fact, more than one out of three companies (37%) in the mature markets and slightly more than one-half (52%) proclaim that the IoT will yield significant advantages for their company. (See Figure 11.) As one respondent simply put it: “Technology is key.”

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IoT networking is looked upon as a strategic tool for better resource and process management as well as improved supply chain visibility. Interestingly, among businesses in mature regions, IoT is considered a platform for receiving and transmitting sensor-generated data. Other reasons for implementing an IoT strategy, according to the companies surveyed, include the need to comply with safety/regulatory rules and improve product/market segmentation. (See Figure 12.)

FIGURE 12

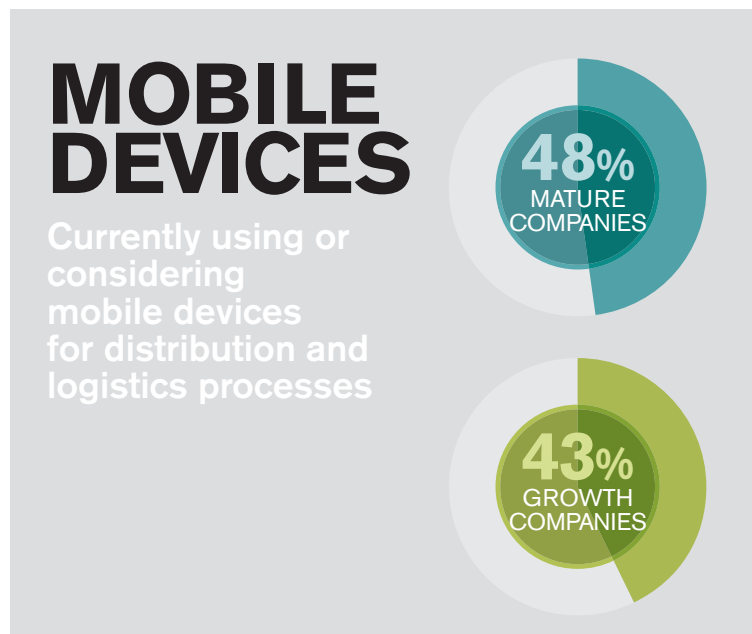


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Mobile Computing

The use of mobile devices to improve distribution and logistics management is also evolving. Just under one-half of those companies surveyed are either already using or considering mobile devices as a way to enhance customer service and support and facilitate distribution center (DC) and logistics processes. (See Figure 13.) Those companies that are not using or thinking about using mobile computing in the warehouse typically rely on a combination of traditional radio frequency (RF) technology, manual/paper-based processing, fixed workstations, and automated storage and retrieval systems (AS/RS).

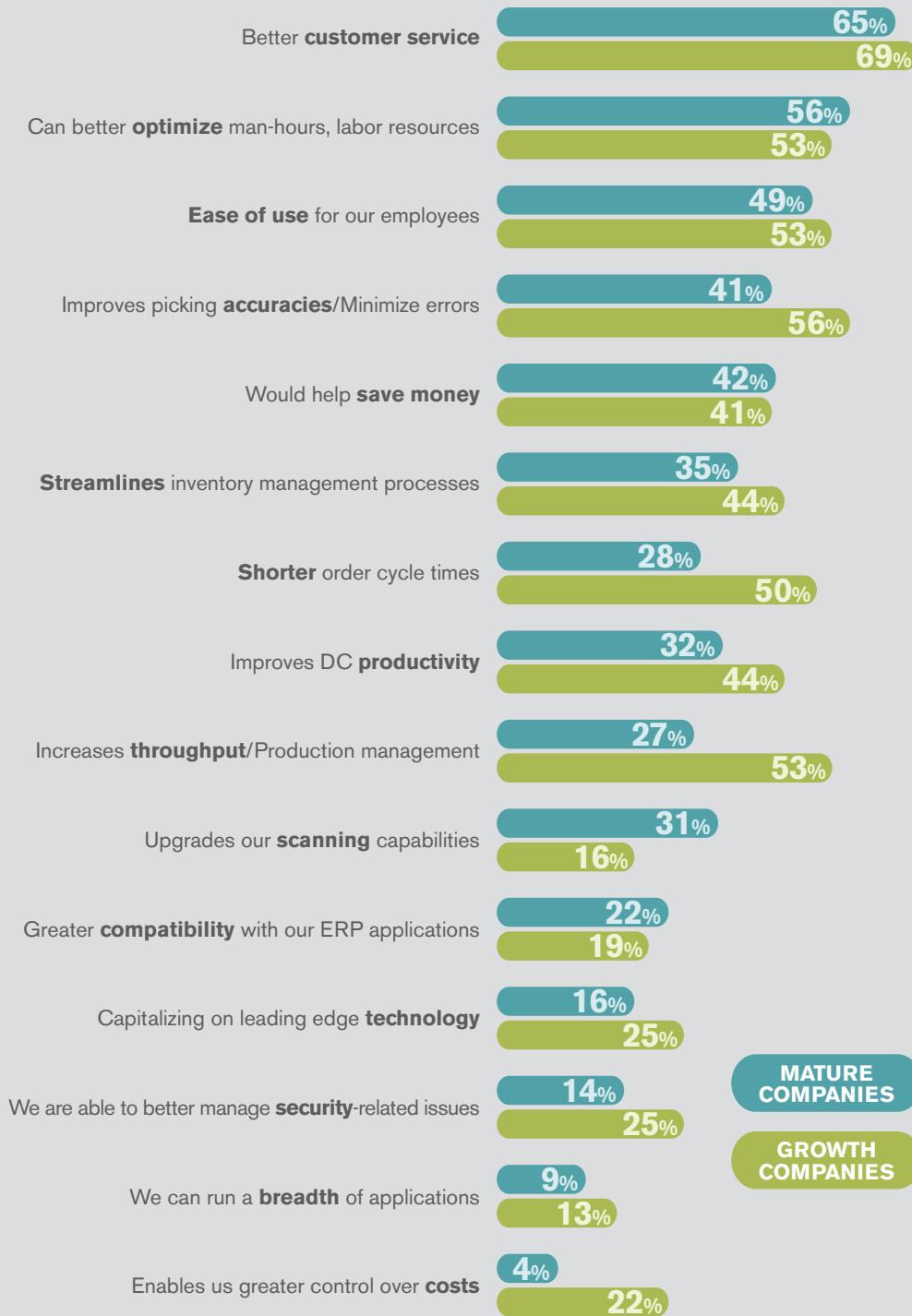
FIGURE 13



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FIGURE 14

THE UPSIDE Benefits realized/hope to gain through the use of mobile devices and solutions



Priorities for mobile applications will largely concentrate on areas that help companies gain greater control over distribution and logistics costs, enable remote data access to workers, and improve business and supply chain information management. Other reasons to implement mobile devices and solutions include the need to improve picking accuracy, minimize errors, save money, and streamline the inventory management process. (Figure 14.) Using mobile devices and solutions also helps companies better capitalize on new technology as a way to increase revenue streams, tap into new market opportunities, improve worker productivity, better engage with their customers, and leverage data analytics tools.

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Summary

With issues like labor shortages, geopolitical turmoil, changing customer expectations, demand unpredictability and rising costs of doing business all taking their toll on their bottom lines, global organizations are looking to technology to help them offset these ever-rising hurdles. Concurrently, companies in both mature and developing markets are taking the necessary steps to offset issues like labor shortages—a problem that promises to exacerbate over the next few years. With their profitability being negatively affected by rising costs and the ongoing need to maintain (and improve) service levels, firms will continue to invest in new technology applications that help them offset these and other challenges.

Over the coming years, IoT, Big Data, and mobile devices/applications should all play a larger role in helping companies create streamlined, end-to-end supply chains that span the globe. Whether they're operating in mature markets or emerging economies, these firms will continue to rely on technology that helps improve their operations, bring them closer to their customers, and operate more profitably in the continually-evolving world markets.

Methodology

This research was conducted by Peerless Research Group on behalf of Logistics Management magazine for Honeywell International, Inc. This study was executed in April of 2016 and was administered over the Internet to Logistics Management subscribers. In total, 308 supply chain and logistics professionals participated in the study: 213 respondents work at businesses in mature markets and 77 respondents are employed with companies in growth markets; 18 professionals did not provide location of business and, subsequently, were not classified into either group.

For this research, countries grouped in the mature market segment include the U.S., Canada, and the countries in the European Union. The growth market category includes Mexico, the Caribbean, Latin and South America, META (Middle East, Turkey, Africa), India, China, and the Pacific Rim. Demographics within each of these segments are similar. Respondents are predominantly top corporate executives, vice presidents, and directors of supply chain operations, directors and managers of logistics, or other operational directors and managers. A range of industries are covered in the research, including manufacturing, wholesale and retail, and supply chain and logistics operators.

About Honeywell and Global Transportation and Logistics Solutions

Honeywell Sensing and Productivity Solutions is a global leader in providing productivity solutions built around our high performance data collection hardware including rugged mobile computers, voice-enabled software, bar code scanners, radio frequency identification (RFID) and workflow printing solutions. Our solutions serve customers in field service, healthcare, industrial, manufacturing, healthcare retail, supply chain, and transportation and logistics markets. Honeywell Sensing and Productivity Solutions enable companies to accurately track every item throughout their supply chain and improve efficiency, saving immeasurable hours in cross docking, yard management and pickup and delivery operations. Our data collection solutions deliver real-time information exactly where it's **needed** so companies have complete and timely visibility of their goods at all times. To learn more about our productivity solutions, please visit www.honeywellaidc.com.

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