Key Strategies To Capture And Measure The Value Of Consumerization Of IT

Enterprises Achieve A Wide Range Of Benefits By Deploying Bring-Your-Own-Device Programs

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Forrester Consulting
Making Leaders Successful Every Day

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Executive Summary

The corporate mobility landscape is increasingly complex as employees use their own technology within enterprises, part of a trend called "the consumerization of IT." Many employees expect to use their personally selected smartphones, tablets, laptops, and other devices from Apple, Google, Research In Motion (RIM), and other platform providers for work. To address this expectation, many enterprises are deploying bring-your-own-device (BYOD) programs, which enable employees to use personal devices for work-related activities. To capture the value of BYOD program deployment, firms need to use a wide variety of measurement strategies that evaluate the impact on corporate expenses and activities.

In the first quarter of 2012, Trend Micro commissioned Forrester Consulting to conduct a research study to obtain an in-depth understanding of: 1) the factors driving firms to deploy BYOD programs; 2) the range of measurement strategies used to evaluate the impact of BYOD programs throughout the organization; and 3) the challenges associated with BYOD deployment. The study methodology included an online survey of 202 BYOD program decision-makers in enterprises in the US, the UK, France, and Germany, as well as eight in-depth interviews lasting 45 minutes each. All participants in this study worked on developing BYOD programs or understood the impact of such programs on the organization.

Results from this study include:

- **Enterprises deploy a variety of BYOD programs to support employees.** Sixty percent of US and European firms deploy BYOD programs for smartphones; 47% deploy BYOD programs for tablets and laptops. Internal representatives from IT, senior management, networking, engineering, and sourcing teams, as well as external representatives from third-party vendors and consultants, participate in BYOD program development.

- **Increasing worker productivity and flexibility are leading factors driving BYOD program deployment.** In fact, 70% of survey respondents cited increasing worker productivity as a key driver for BYOD programs. More than half (52%) cited giving employees the flexibility to use their personally selected smartphones or tablets. Some firms are also deploying BYOD programs to cut costs for corporate-liable voice, data, and devices.

- **Enterprises measure the impact of BYOD programs on expenses and other metrics.** Between 38% and 60% of enterprises that have deployed BYOD programs also measure the impact of these programs on a variety of expenses, including software license fees, maintenance fees, and infrastructure expenses for telecom and virtual device infrastructure solutions. Many firms also measure the impacts of mobile devices and voice and data services on corporate reimbursements.

- **Increasing worker productivity is the top benefit achieved from deploying BYOD programs.** Over 80% of firms base their business case for deploying BYOD programs on improving worker productivity, and nearly 70% achieved increased bottom line revenues. The jury is still out on whether financial benefits, alone, are strong enough to justify BYOD programs, however, it is clear that the BYOD business case is driven by employee adoption. Enterprises must take a proactive approach to maximize the benefits of BYOD programs, as well as manage the implementation costs including application and device security, back-end infrastructure, and compliance expenses, to ensure a net positive impact on the organization.
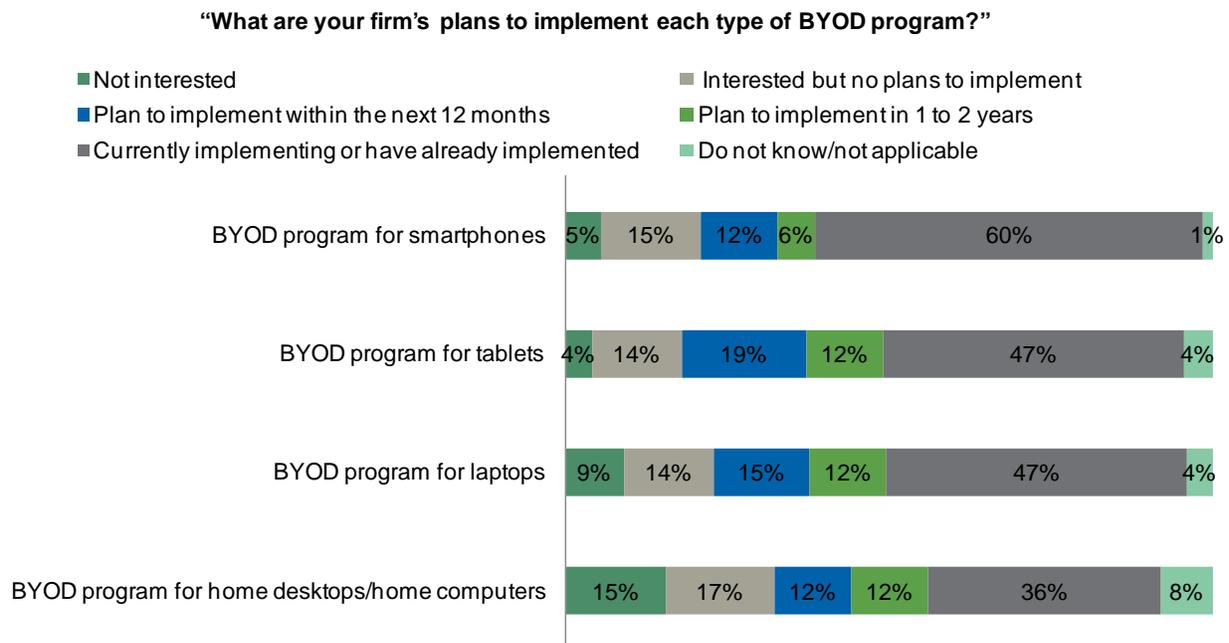
- **Firms must address security issues when deploying BYOD programs.** A majority of enterprises identify security challenges as key issues of deploying BYOD programs. Mobile device security concerns lead the way, but mobile data and mobile application security concerns are a challenge facing at least 50% of firms. Some enterprises take a proactive approach to addressing these security issues, by implementing a virtual device infrastructure to let users access corporate data from smartphones and tablets or by developing corporate policies to ensure that their organization has a standard way to address security breaches.

Enterprises Deploy Many Types Of BYOD Programs For Employees

Enterprises in North America and Europe pursue a wide range of mobile device, application, and support initiatives. Driving this mobility momentum is the increasing number of enterprises that provide some level of support for personally owned devices (such as smartphones, tablets, and laptops) that employees use for work-related activities. Due to the consumerization of IT trend, many enterprises are deploying a variety of employee BYOD programs (see Figure 1).

Figure 1

Enterprises Are Deploying And Planning To Deploy A Variety Of BYOD Programs

"What are your firm's plans to implement each type of BYOD program?"

- Not interested
- Interested but no plans to implement
- Plan to implement within the next 12 months
- Plan to implement in 1 to 2 years
- Currently implementing or have already implemented
- Do not know/not applicable

	Not interested	Interested but no plans to implement	Plan to implement within the next 12 months	Plan to implement in 1 to 2 years	Currently implementing or have already implemented	Do not know/not applicable
BYOD program for smartphones	5%	15%	12%	6%	60%	1%
BYOD program for tablets	4%	14%	19%	12%	47%	4%
BYOD program for laptops	9%	14%	15%	12%	47%	4%
BYOD program for home desktops/home computers	15%	17%	12%	12%	36%	8%

Base: 202 respondents with an understanding of the impact of the bring-your-own-device (BYOD) program on their business unit or organization

Source: A commissioned study conducted by Forrester Consulting on behalf of Trend Micro, February-March 2012

- **BYOD programs for smartphones are the most commonly deployed.** Results from Trend Micro's custom survey of enterprises in the US and Europe show that 60% of enterprises are currently implementing or have already implemented BYOD programs for employee smartphones. Momentum for BYOD smartphone programs will continue in the future; an additional 18% of surveyed enterprises are planning to implement BYOD programs for smartphones within the next two years. Many firms also deploy BYOD programs to support other types of devices, including tablets and laptops. In fact, nearly half (47%) of enterprises have deployed or are deploying BYOD programs for tablets or laptops, and 37% of enterprises have deployed BYOD programs for home desktops or computers.

- **Executives from a variety of roles participate in BYOD program development (see Figure 2).** The IT organization is a key participant in the BYOD program development process, with 86% of survey respondents stating that the IT team was involved in developing corporate BYOD programs. In addition, many other business decision-makers participate in developing them. More specifically, 40% of surveyed organizations say that senior management has a role in BYOD program development. Executives from the networking, engineering, sourcing, and procurement organizations also participate for at least 25% of surveyed firms. In some cases, enterprises also request assistance from outside vendors such as telecom or technology infrastructure firms or external consultants.

Figure 2

Many Different Roles In The Organization Participate In BYOD Program Development

"Which internal and external organizations participate in developing your BYOD program(s)?"
(Select all that apply)

IT	86%
Senior management (e.g., CXO)	40%
Networking	31%
Engineering	28%
Sourcing/procurement	25%
Telecommunications vendors	23%
Internal telecom team	23%
Lawyers	21%
Technology infrastructure vendors	21%
External consultants	16%
Sales personnel	14%
Marketing	12%
Other	2%

Base: 202 respondents with an understanding of the bring-your-own-device (BYOD) program on their business unit or organization
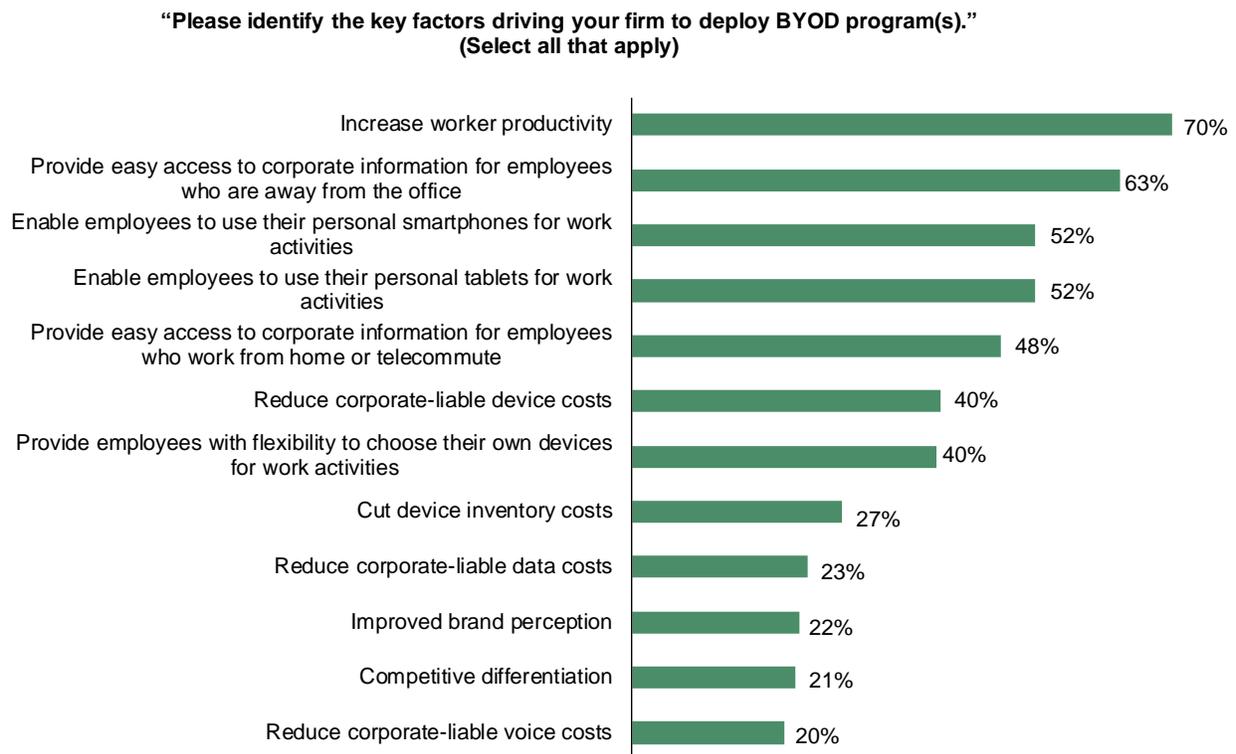
Source: A commissioned study conducted by Forrester Consulting on behalf of Trend Micro, February-March 2012

A Variety Of Factors Drive Firms To Deploy BYOD Programs

So, why are enterprises supporting employees with BYOD programs? Surveyed enterprises are using them to achieve many different benefits, including: increasing employee productivity and responsiveness, improving employee work flexibility, and cutting costs (see Figure 3).

Figure 3

The Key Factors Driving Firms To Deploy BYOD Programs

"Please identify the key factors driving your firm to deploy BYOD program(s)."
(Select all that apply)

Factor	Percentage
Increase worker productivity	70%
Provide easy access to corporate information for employees who are away from the office	63%
Enable employees to use their personal smartphones for work activities	52%
Enable employees to use their personal tablets for work activities	52%
Provide easy access to corporate information for employees who work from home or telecommute	48%
Reduce corporate-liable device costs	40%
Provide employees with flexibility to choose their own devices for work activities	40%
Cut device inventory costs	27%
Reduce corporate-liable data costs	23%
Improved brand perception	22%
Competitive differentiation	21%
Reduce corporate-liable voice costs	20%

Base: 202 respondents with an understanding of the bring-your-own-device (BYOD) program on their business unit or organization

Source: A commissioned study conducted by Forrester Consulting on behalf of Trend Micro, February-March 2012

- **Increasing worker productivity is the leading factor driving BYOD program deployment.** In fact, 70% of survey respondents cited increasing worker productivity and 63% cited providing easy access to corporate information for employees who work away from the office as key drivers to deploying BYOD programs. Worker productivity benefit examples include enhancing employee ability to communicate with each other no matter where they're located and providing employees with the ability to use personally selected devices to complete work-related activities more efficiently. In addition, 48% of firms said that providing easy access to corporate information for employees who work from home or telecommute is a key deployment driver.

"Worker productivity is definitely up. Employees are using devices that they choose and they can communicate with other workers more frequently." (Government operating director)

"We are in the infancy of BYOD programs. These programs enable our company to get more return on employee time." (Engineering consultancy, IT manager)

- **Improving employee flexibility is another factor driving BYOD program deployment.** More than half of survey respondents, 52%, said that giving employees the flexibility to use personal smartphones or tablets for work activities was a key driver for deploying BYOD programs, and 40% indicated that letting employees choose their own devices for work activities was a factor. In many cases, employee-selected and -purchased devices are newer models than company-provided devices.

"Senior healthcare managers (e.g., nurses, doctors) need to access work from home or when they are out of the office." (Healthcare, IT systems analyst)

"Employees want to do their job using their own devices. Often these devices are better than the devices the company gives them." (Engineering consultancy, IT manager)

- **Other BYOD program drivers include cutting costs and improving competitive differentiation.** Some firms are deploying BYOD programs to cut costs. For example, 40% of surveyed enterprises identified reducing corporate-liable costs as a key driver. Other cost-cutting initiatives include reducing device inventory costs (27%), reducing corporate-liable data costs (23%), and reducing corporate-liable voice costs (20%). About one-fifth of survey respondents identified improving competitive differentiation as a key factor.

"There is a competitive healthcare institution five miles away which supports BYOD programs. To be competitive we must provide doctors who work in both institutions similar support for personal devices." (Healthcare, system analyst)

"We have become more competitive because we have lowered our expenses." (Financial services, VP of IT)

"BYOD programs enable IT to do more with less and to get more return on employee time." (Engineering consultancy, IT manager)

Many Firms Measure BYOD Program Impacts On Expenses And Functionality

Enterprises measure the impact that BYOD programs have on a variety of expenses and functionality. Thirty-eight percent to 60% of enterprises that have deployed BYOD programs measure the impact on expenses (see Figure 4). Some firms measure expenses separately, while others measure them as part of other overall business processes. Examples of the wide range of expenses that enterprises measure are:

- **Software license, maintenance, and network infrastructure expenses.** A vast majority (60%) of firms separately measure how BYOD programs affect software license fees. Such fees include client access licenses, which are often required to let each employee access corporate software and mobile applications as well as mobile middleware and services. Maintenance fees are required to update and maintain mobile device operating system platforms, applications, and services. Survey results show that 59% of enterprises separately measure the

impact of BYOD programs on these maintenance expenses. Many firms also measure the impact on infrastructure expenses for telecommunications or virtual device solutions.

"The cost of maintaining devices will be reduced, because more of these costs will be covered by the end user." (Hospitality, senior director of systems operations)

"We purchased three new servers to provide support for new mobile devices such as iPhones. We must also continue to support BlackBerry servers." (Healthcare, system analyst)

"For virtual environments there is an upfront increase in the cost to purchase servers to support users. However, the scalability of servers justifies the investment, because 1,000 employees can be supported effectively using dumb terminals." (Financial services, vice president of IT)

- **Corporate reimbursements for mobile devices and voice and data services.** A key category of expenses affected by BYOD programs is corporate reimbursements for mobile voice, data, and device costs. For example, as the number of employees who purchase their own devices and use them for work activities increases, the expense associated with corporate-liable devices is likely to decrease. At least half the surveyed enterprises separately measure the impact of deploying BYOD programs on corporate reimbursements for devices or for voice and data plans.

"Device replacement and reimbursement costs decline, because employees take better care of their personally owned devices compared to corporate owned devices." (Hospitality, senior director of systems operations)

"If employees bring their own devices they are responsible for paying the data and voice costs on their own. Our company does not reimburse employees for BYOD voice and data costs." (Engineering consultancy, IT manager)

- **Revenues and help desk or IT personnel costs.** Some firms also measure the impact of BYOD program deployment on other types of corporate functionality (see Figure 5). Fifty-nine percent measure the impact on revenues, 50% on staffing costs for telecom personnel, 40% on help desk personnel, and 32% on IT network personnel. Some firms specifically measure impacts on the number of help desk calls and worker productivity.

"A team of employees is assigned to support BYOD issues during work hours, but there is no help desk support after hours." (Healthcare, IT services manager)

"Each help desk employee decides when to stop working on a BYOD smartphone issue. If employees spend too much time on BYOD issues, it takes away time from their official work." (Engineering consultancy, IT manager)

"Worker productivity is definitely up. Employees are using devices that they chose to access email at any time." (Government, operations manager)

Figure 4

Enterprises Measure The Impact Of Deploying BYOD Programs On Many Different Expenses

"Which of the following statements best describes the way your company measures the impact of each of these items?"

■ We measure the specific impact achieved from this item separately from other types of business process
■ Impacts achieved from item are included in overall business process but are not measured separately.
■ Do not know how the impact is measured for this item

	Separate	Included	Do not know
Software license costs (N = 55)	60%	33%	7%
Maintenance costs (N = 41)	59%	39%	2%
Telecom infrastructure costs (N = 38)	58%	37%	5%
Corporate reimbursements for employee voice expenses (N = 52)	58%	35%	8%
USB/3G card expenses (N = 50)	56%	34%	10%
Corporate reimbursements for employee devices (N = 53)	53%	40%	8%
Corporate reimbursements for employee data expenses (N = 46)	52%	37%	11%
Device replacement costs (N = 37)	51%	38%	11%
Corporate liable voice costs (N = 50)	50%	38%	12%
Application security costs (N = 51)	49%	37%	14%
Virtual device infrastructure costs (e.g., servers) (N = 45)	49%	38%	13%
Device security costs (N = 61)	48%	43%	10%
Back-end integration costs (N = 40)	48%	45%	8%
Server costs (N = 36)	47%	44%	8%
Professional services fees (N = 31)	45%	45%	10%
Regulatory compliance expenses (e.g., creating audit trails, adhering to…	48%	33%	18%
Device depot program costs (N = 27)	44%	52%	4%
Training and education costs (N = 37)	43%	54%	3%
Corporate liable data costs (N = 51)	41%	47%	12%
Mobile device management solution costs (N = 47)	40%	45%	15%
Application development costs (N = 38)	39%	58%	3%
Legal fees (N = 26)	38%	54%	8%

Base: respondents with an understanding of the impact of the bring-your-own-device (BYOD) program on their business unit or organization

Source: A commissioned study conducted by Forrester Consulting on behalf of Trend Micro, February-March 2012

Figure 5

Measurement Strategy For Other Impacted Areas

"Which of the following statements best describes the way your company measures the impact of each of these items?"

- We measure the specific impact achieved from this item separately from other types of business process
- Impacts achieved from item are included in overall business process but are not measured separately.
- Do not know how the impact is measured for this item

Item	Measure separately	Included, not separate	Do not know
Bottom line revenues (N = 41)	59%	37%	5%
Brand perception (N = 30)	47%	43%	10%
Telecom personnel costs (N = 36)	50%	50%	
Number of help desk calls to tier one, two, three (N = 53)	45%	42%	13%
Help desk personnel costs (N = 43)	40%	51%	9%
Flexible work environment (N = 70)	40%	46%	14%
Worker productivity (N = 68)	43%	46%	12%
IT network personnel costs (N = 50)	32%	64%	4%
Competitive differentiation (N = 36)	28%	58%	14%

Base: respondents with an understanding of the impact of the bring-your-own-device (BYOD) program on their business unit or organization

Source: A commissioned study conducted by Forrester Consulting on behalf of Trend Micro, February-March 2012
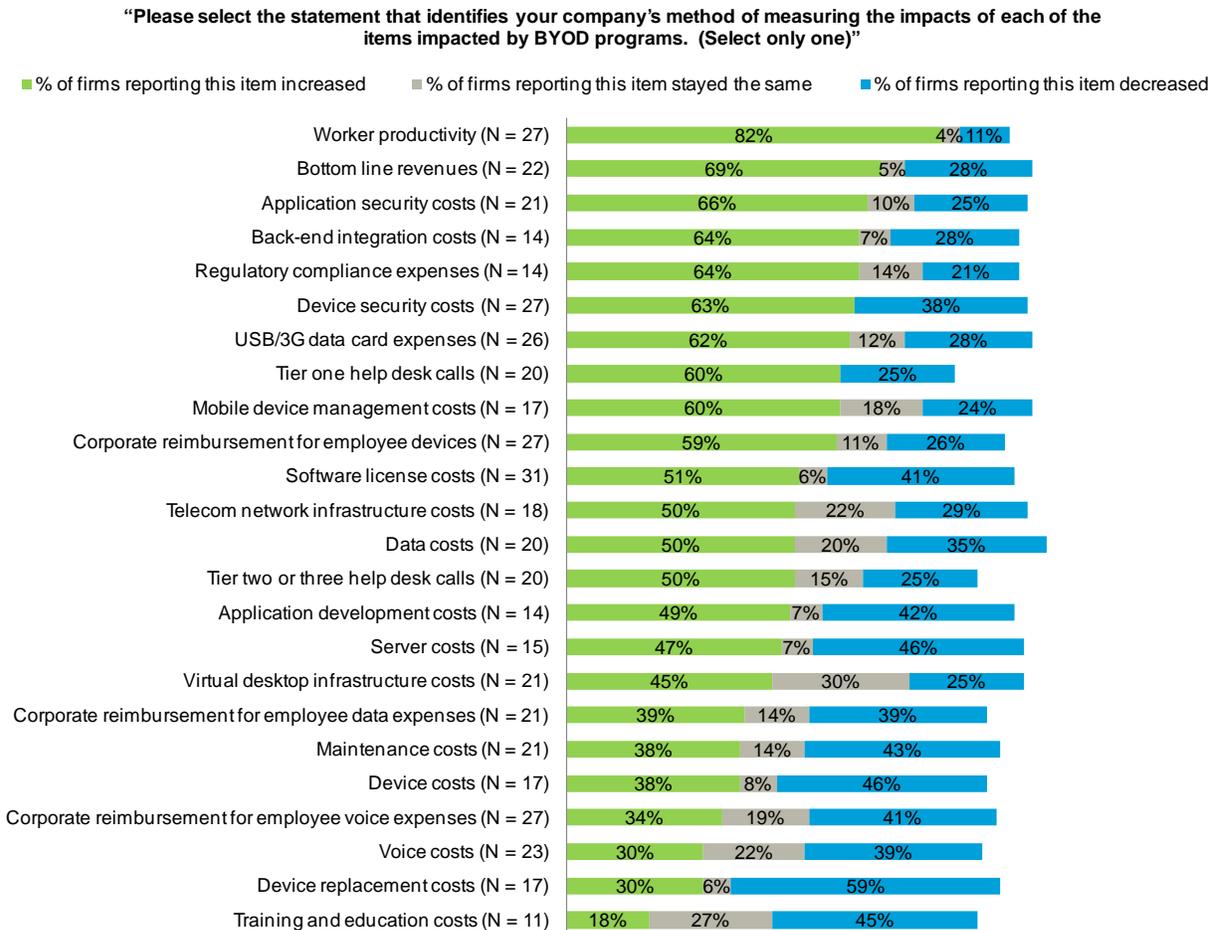
Impacts Of BYOD Programs On Expenses And Other Functionality Vary Widely

Results from the quantitative survey highlight the wide range of expenses and other corporate functionalities that BYOD programs affect (see Figure 6). Enterprises that are currently deploying or are considering deploying BYOD programs should evaluate whether these programs will impact each functionality, and if so, to what extent:

- **Leading benefits to BYOD programs include increasing worker productivity and increasing revenues.** The top benefit firms achieved from deploying BYOD programs is increased worker productivity. More than 80% of surveyed enterprises stated that worker productivity increased due to BYOD programs. These productivity benefits are achieved as employees use their mobile devices to communicate with other workers more frequently, from any location, at any time of the day. In addition, nearly 70% of firms increased their bottom line revenues as a result of deploying BYOD programs.

- **BYOD program deployment affects a wide variety of expenses.** BYOD program implementation can affect many different types of expenses — in some cases increasing these expenses, and in other cases decreasing them.

For example, key areas where expenses tend to increase include application security, back-end infrastructure, and regulatory compliance fees. In comparison, many firms noted that device and device replacement costs are (unsurprisingly) the most likely to decrease.

Figure 6

Specific Impact Of BYOD Programs On Expenses And Other Items

"Please select the statement that identifies your company's method of measuring the impacts of each of the items impacted by BYOD programs. (Select only one)"

■ % of firms reporting this item increased   ■ % of firms reporting this item stayed the same   ■ % of firms reporting this item decreased

Item	Increased	Stayed the same	Decreased
Worker productivity (N = 27)	82%	4%	11%
Bottom line revenues (N = 22)	69%	5%	28%
Application security costs (N = 21)	66%	10%	25%
Back-end integration costs (N = 14)	64%	7%	28%
Regulatory compliance expenses (N = 14)	64%	14%	21%
Device security costs (N = 27)	63%		38%
USB/3G data card expenses (N = 26)	62%	12%	28%
Tier one help desk calls (N = 20)	60%		25%
Mobile device management costs (N = 17)	60%	18%	24%
Corporate reimbursement for employee devices (N = 27)	59%	11%	26%
Software license costs (N = 31)	51%	6%	41%
Telecom network infrastructure costs (N = 18)	50%	22%	29%
Data costs (N = 20)	50%	20%	35%
Tier two or three help desk calls (N = 20)	50%	15%	25%
Application development costs (N = 14)	49%	7%	42%
Server costs (N = 15)	47%	7%	46%
Virtual desktop infrastructure costs (N = 21)	45%	30%	25%
Corporate reimbursement for employee data expenses (N = 21)	39%	14%	39%
Maintenance costs (N = 21)	38%	14%	43%
Device costs (N = 17)	38%	8%	46%
Corporate reimbursement for employee voice expenses (N = 27)	34%	19%	41%
Voice costs (N = 23)	30%	22%	39%
Device replacement costs (N = 17)	30%	6%	59%
Training and education costs (N = 11)	18%	27%	45%

Base: respondents with an understanding of the impact of the bring-your-own-device (BYOD) program on their business unit or organization

Note: Results can only be used for guidance because they are not significant sample sizes. Only impacts with more than 10 responses are shown.

Source: A commissioned study conducted by Forrester Consulting on behalf of Trend Micro, February-March 2012

Addressing Security And Governance Issues Are Necessary For Success

The ever-expanding array of mobile devices and platforms, along with BYOD programs, puts tremendous pressure on the IT organization, and often affects other activities and business processes in the organization. Examples of other activities many firms engage in as a result of deploying BYOD programs are (see Figure 8):

- **Document formal governance and corporate reimbursement policies.** A one-size-fits-all approach is not appropriate to support all employees using BYOD programs. Not every employee has the same mobility requirements, uses the same devices and apps, or has the same security requirements. Survey results show that 46% of enterprises are formally documenting BYOD program policies, and 31% to 38% of firms are updating corporate reimbursement policies for employee purchased devices, voice plans, and data plans. The reimbursement policy should document which employees get full versus partial reimbursement; company reimbursement policies for devices, voice, and data service; tax implications for reimbursements; and which budget the reimbursement comes from.

  "We are rewriting the official BYOD policy to address the wide range of new smartphones and tablets." (Engineering consultancy, IT manager)

  "We are reviewing our reimbursement policy for determining how to deal with employees who max out their data plans due to using work applications on their personal devices." (Government operations director)
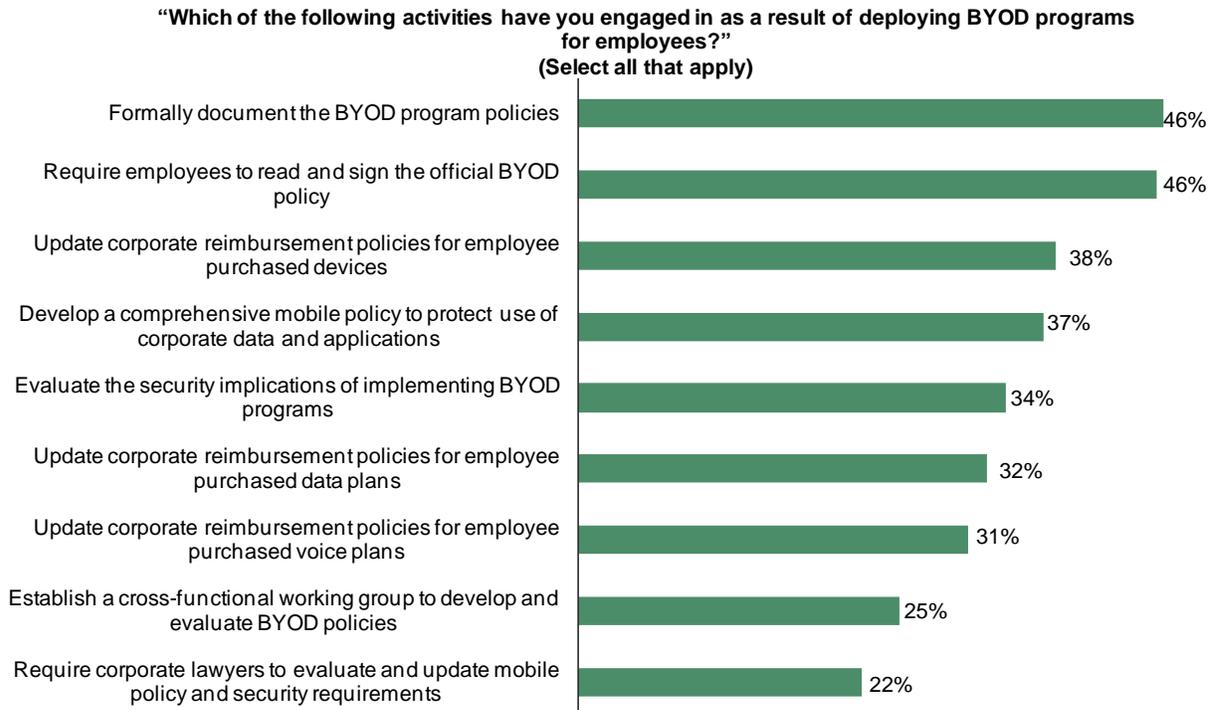
- **Establishment of a cross-functional team to develop and evaluate BYOD program policies.** Survey results show that 25% of respondents have established a cross-functional working group to develop and evaluate BYOD policies. Developing a comprehensive BYOD program often requires that the program is coordinated across many different units in the organization. For example, a cross-functional mobility team that brings together leaders from multiple disciplines and functions will have the horsepower to define strategy, make decisions, establish policies, secure funding, and get things done. The cross-functional team should include representatives from every discipline, function, and business in the organization.

  "The IT department oversees the BYOD program development and funnels information through to managers and staff members." (Healthcare, IT services manager)

  "All divisions provide some input into the development of the BYOD program." (Government, operations director)

Figure 7

BYOD Program Deployment Drives Firms To Engage In Various Related Activities

"Which of the following activities have you engaged in as a result of deploying BYOD programs for employees?"
(Select all that apply)

Activity	%
Formally document the BYOD program policies	46%
Require employees to read and sign the official BYOD policy	46%
Update corporate reimbursement policies for employee purchased devices	38%
Develop a comprehensive mobile policy to protect use of corporate data and applications	37%
Evaluate the security implications of implementing BYOD programs	34%
Update corporate reimbursement policies for employee purchased data plans	32%
Update corporate reimbursement policies for employee purchased voice plans	31%
Establish a cross-functional working group to develop and evaluate BYOD policies	25%
Require corporate lawyers to evaluate and update mobile policy and security requirements	22%

Base: 202 respondents with an understanding of the impact of the bring-your-own-device (BYOD) program on their business unit or organization
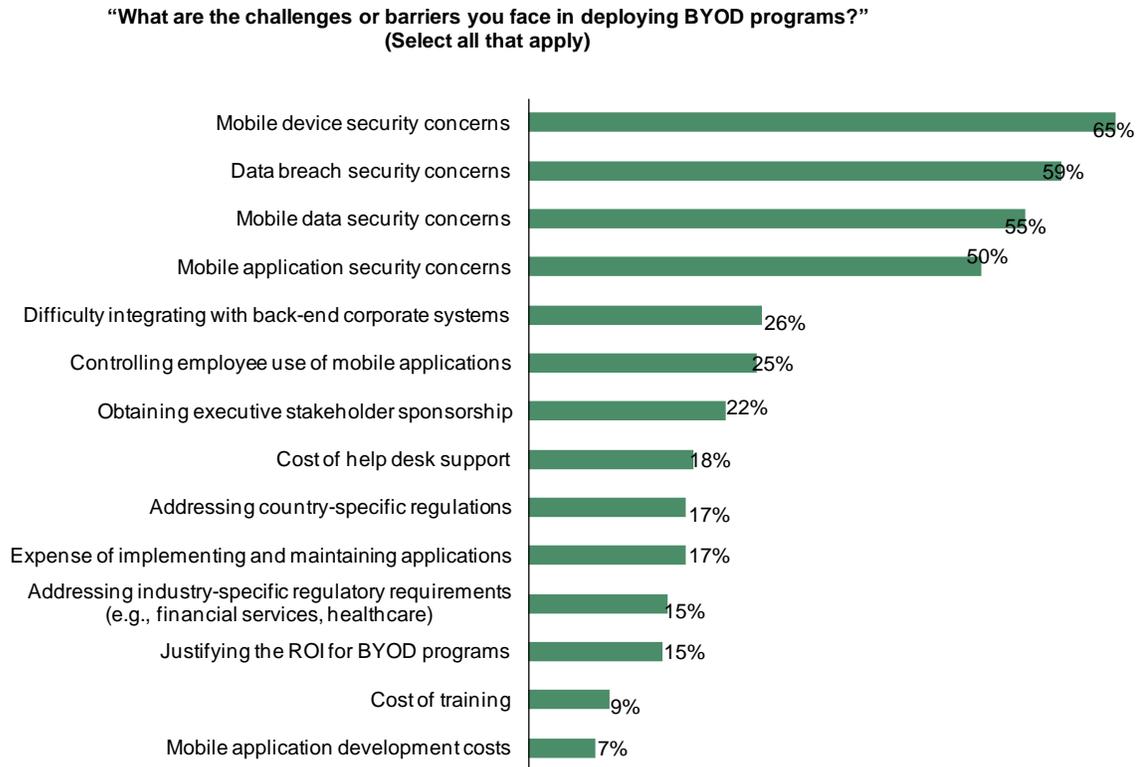
Source: A commissioned study conducted by Forrester Consulting on behalf of Trend Micro, February-March 2012

- **Addressing security concerns is necessary for successful BYOD program implementation.** It's important to realize that between 50% and 65% of enterprises identify security challenges as the top issues faced when deploying BYOD programs. Mobile device security concerns lead the way, at 65%; however, mobile data and application security concerns are a challenge facing at least 50% of firms. Some enterprises are taking a proactive approach to addressing these security issues. For example, 34% of surveyed firms use a virtual device infrastructure to enable users to access corporate data from smartphones and tablets, and 31% of firms developed standard corporate policies to address security breaches.

  "End users must accept the BYOD policy and security measures developed by the networking group before they can access corporate information on their devices." (Engineering consultancy, IT manager)

  "Mobile device security issues must be addressed in two ways. Employees must be aware of where they are leaving their devices, and IT must have protocols in place to protect devices." (Construction, director of automation)

Figure 8

Security Concerns Are Among The Top Challenges To Implementing BYOD Programs

"What are the challenges or barriers you face in deploying BYOD programs?"
(Select all that apply)

Challenge	Percentage
Mobile device security concerns	65%
Data breach security concerns	59%
Mobile data security concerns	55%
Mobile application security concerns	50%
Difficulty integrating with back-end corporate systems	26%
Controlling employee use of mobile applications	25%
Obtaining executive stakeholder sponsorship	22%
Cost of help desk support	18%
Addressing country-specific regulations	17%
Expense of implementing and maintaining applications	17%
Addressing industry-specific regulatory requirements (e.g., financial services, healthcare)	15%
Justifying the ROI for BYOD programs	15%
Cost of training	9%
Mobile application development costs	7%

Base: 202 respondents with an understanding of the impact of the bring-your-own-device (BYOD) program on their business unit or organization

Source: A commissioned study conducted by Forrester Consulting on behalf of Trend Micro, February-March 2012

KEY RECOMMENDATIONS

The corporate mobility landscape is increasingly fragmented and complex as employees bring their own devices (e.g., smartphones, tablets, laptops, etc.) into the office and use them for work-related activities. Results from the custom survey commissioned by Trend Micro identified the factors driving firms to deploy BYOD programs, the range of measurement strategies used to evaluate the impact of these programs, and the challenges associated with BYOD program deployment. Successful BYOD program deployment requires enterprises to:

- **Evaluate opportunities to proactively deploy BYOD programs.** Many employees expect to use their personally selected smartphones, tablets, laptops, and other devices from Apple, Google, RIM, and five other platform providers for work. To address this expectation, many enterprises are expanding their deployment of BYOD programs to improve employee productivity, provide employees with the flexibility to access information over personally owned devices, and to improve cost efficiencies.

- **Measure the benefits and impacts of BYOD programs to justify the business case for deployment.** The basis for justifying BYOD program deployment is primarily due to increased worker productivity and increased bottom line revenues. Other benefits achieved by many firms include reduced device replacement, training, and maintenance costs. Firms that have deployed or are considering deploying BYOD programs must measure the impact of BYOD programs on these key benefit areas. Some companies also measure the impact of BYOD programs on other items including mobile device and service reimbursements, security investments, virtual device infrastructure impacts, and help desk call volume changes.

- **Educate and train line-of-business workers and employees on BYOD program specifications.** Achieving the benefits from deploying BYOD programs is dependent upon employee usage. Enterprises that deploy BYOD programs should be prepared to invest in training employees on BYOD policies and specifications. If workers don't use BYOD programs appropriately, there is a risk of security breaches or the benefits from these programs not being achieved. BYOD training initiatives can include "lunch-and-learn" programs or self-service programs that employees read and sign off on when they've completed the review process.

Appendix A: Methodology

During the first quarter of 2012, Forrester Consulting conducted primary research through eight qualitative phone interviews lasting about 45 minutes each, and online surveys of executives at 202 enterprises the US, the UK, France, and Germany. Each of the participants in this study work for enterprises that have formalized bring-your-own-device (BYOD) programs for devices including smartphones, tablets, laptops, or home computers. Study participants in the US worked for enterprises with at least 1,000 employees, while respondents in Europe worked for enterprises with at least 500 employees. Quantitative and qualitative study respondents worked in a wide variety of roles in the organization, including: IT, finance, operations, sales, field service, marketing, product development, and engineering. A profile of the geographic and organizational department segmentation of the survey respondents is included below.

Figure A1

Geographic And Organizational Department Profile Of Quantitative Survey Respondents

"In which region of the world is the company you work for headquartered?"
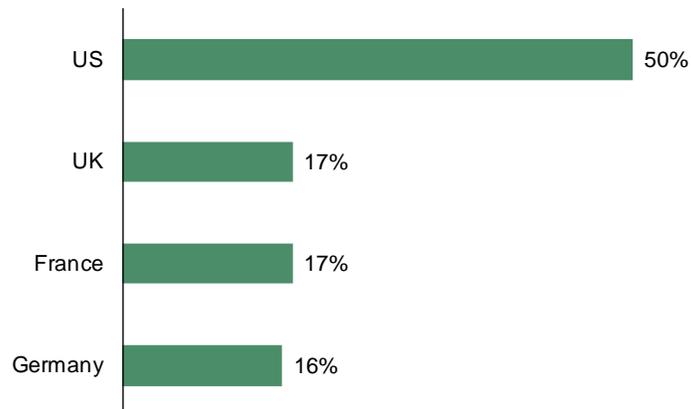
"Which of the following departments do you work for in your organization?"
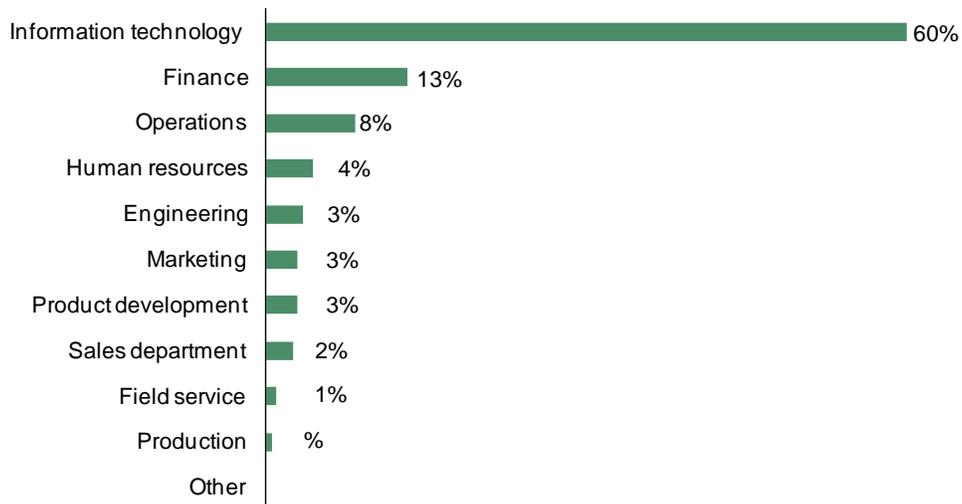
Base: 202 respondents with an understanding of the impact of the bring-your-own-device (BYOD) program on their business unit or organization

Source: A commissioned study conducted by Forrester Consulting on behalf of Trend Micro, February-March 2012

Examples of the types of questions these respondents answered included:

- What factors drove your organization to implement a formal BYOD program?

- Who in your organization was involved in developing the BYOD program (e.g., CIO, IT personnel, line-of-business executives, lawyers, etc.)?

- What types of benefits has your organization achieved from deploying a BYOD smartphone program?

- Please discuss your company's current implementation or plans to deploy corporate BYOD programs for tablets.

- What are the challenges or barriers you face in deploying your BYOD program(s)?