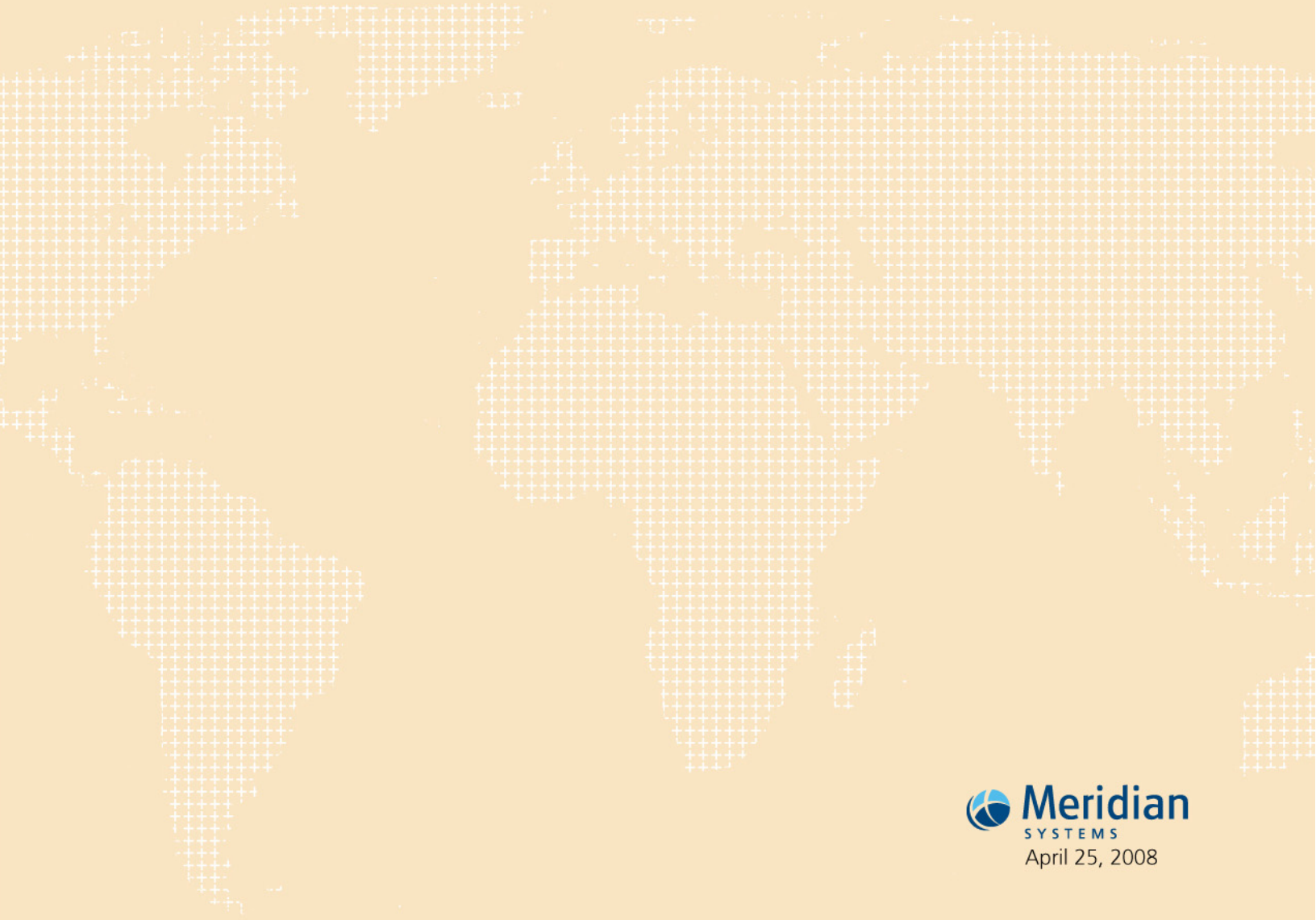


# Utilizing Construction Project Management Technology to Create Best-in-Class Organizations

An independent user study conducted by FMI analyzing the impact to organizations using construction project management software from Meridian Systems



MANAGEMENT CONSULTING • INVESTMENT BANKING  
for the CONSTRUCTION INDUSTRY



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## **Introduction**

Since its founding in 1993, Meridian Systems has sought to provide validation and educational insight into the value of construction project management technology. As its customer base has grown, Meridian has profiled individual customers in order to chronicle the unique business challenges surrounding project controls, and how project management solutions from Meridian has helped to overcome these challenges.

After 15 years of providing solutions, Meridian sought to commission a specific research study that would capture an aggregate profile of its installed base, and to articulate the organizational and project-level business benefits received by these companies.

In February 2008, Meridian commissioned FMI Corporation (FMI) to conduct a broad survey of its customers to independently assess the top business drivers and the resulting benefits from implementing construction project management technology. The purpose of this report is to share these findings with other Meridian customers, as well as to provide a resource for other project-driven organizations currently researching project management applications.

## Executive Summary

FMI jointly developed the survey questionnaire with Meridian and distributed it electronically to a random sample of 6,757 Meridian customers in March 2008. Slightly more than 300 customers responded (4.5% response rate). The results were analyzed by FMI, and no individual responses were shared with Meridian.

Several important conclusions come to light, but it's important to start with an understanding the most common business challenges that originally drove the decision to implement a formal capital project management solution. For most Meridian customers, the lack of document control and the need to standardize project management practices across their organizations were key drivers. This is not surprising, as additional FMI research identified document control as one of the greatest project management challenges for contractors.

Survey results also suggest that respondents experienced overall improvement in project controls due to better communication; a result of reduced turnaround times and access to more accurate data and information. Moreover, respondents indicated a strong brand loyalty and a strong likelihood that customers will recommend Meridian solutions to their colleagues.

## Criteria

While several solution criteria can drive the software selection process, when asked which criteria were most important in choosing a project management system, Meridian customers most frequently responded with 1) *flexibility*, 2) *ease of use* and 3) *functionality*. Meridian appears to have met these requirements, as the number of users per organization averages almost 200 (both internal and external users). For some customers, the numbers range in the thousands.

More than 80% of respondents cited *Contract and Change Management* and *Document Management* as the most highly used functions within their project management solution. The next most commonly used functions are *Project Cost and Budget Management* and *Field Administration* (used by approximately two-thirds of customers surveyed).

## Benefits

The benefits most enjoyed by customers implementing a Meridian solution include *improved project control* and *standardization of project management practices*, precisely the business drivers cited above that led customers to implement a formal project management system. More *timely and accurate communication/reporting* and *enhanced staff productivity* were also realized.

The study also provides in-depth detail on both project- and organizational-level benefits. At the project level, the most beneficial aspects of Meridian solutions were: 1) *Accurate and timely reporting on project performance*, 2) *Reduced turnaround time on communications/approvals*, and 3) *Increased staff productivity*. At the organizational level, the most beneficial aspects of Meridian solutions were cited as 1) *Improved project control by having one central place for all project information*, and 2) *The ability to implement standard project management processes across the organization*.

## Return On Investment

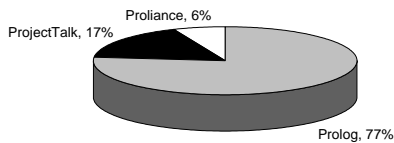
Almost two-thirds of survey respondents estimated some dollar savings as a result of implementing a Meridian solution. The annual return on investment for these customers averages more than \$200,000 – savings that increase over time the longer the solution has been in use. For some organizations, annual savings had reached in excess of \$1 million dollars.

When asked about future plans for their project management solution, the highest priorities for those customers responding to the survey are to 1) *Extend our project management system into other software systems within our organization*, and 2) *To utilize more features of modules that we are not using today*.

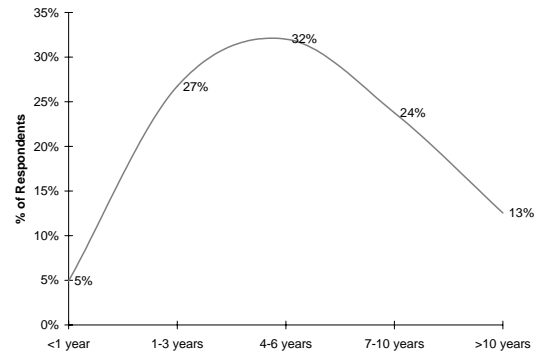
## Customer Demographics

Respondents are most active in the nonresidential building segments (primarily office and commercial). The survey results are not skewed by a disproportionate number of small or large firms. The survey respondents report capital improvement and/or construction project volumes ranging from less than \$50 million to more than \$500 million (2007) in almost equal distribution. Greater than two-thirds of customers have used their Meridian solution for four or more years. The following exhibits illustrate the most common customer characteristics for those responding to the survey.

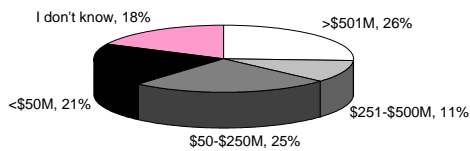
**Which of the following Meridian solutions does your organization use? (n=302)**



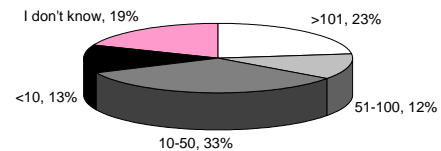
**Length of time the solution has been in use (n=303)**



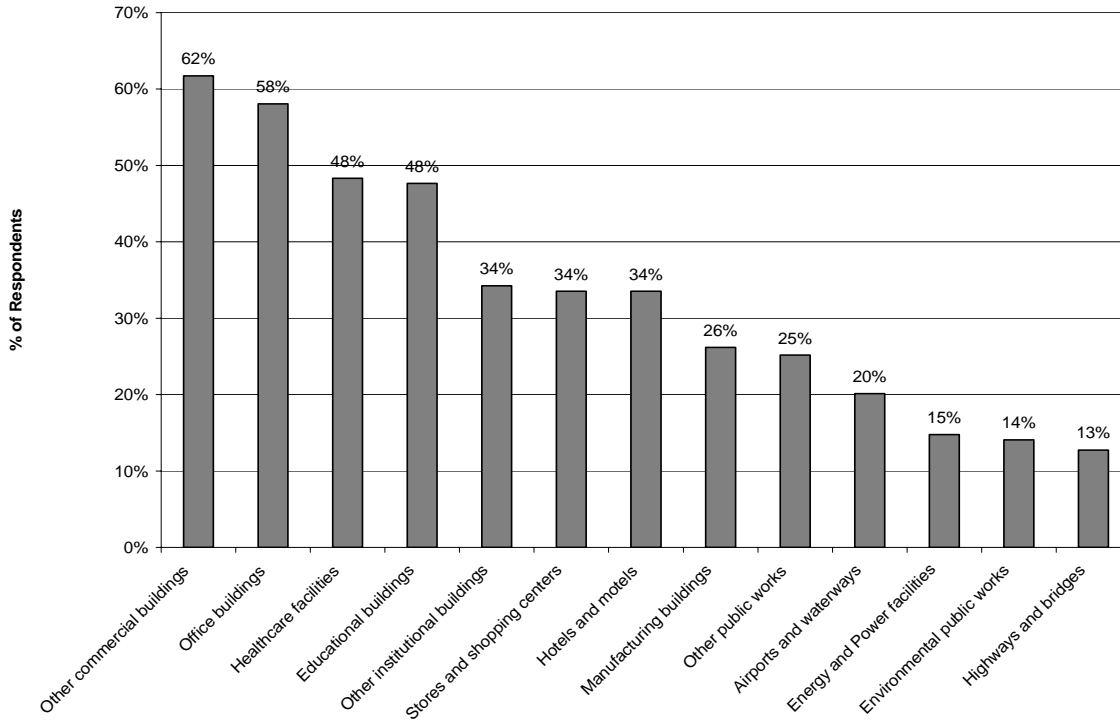
**Capital Improvement and/or Construction Project Volume Last Year (\$) (n=295)**



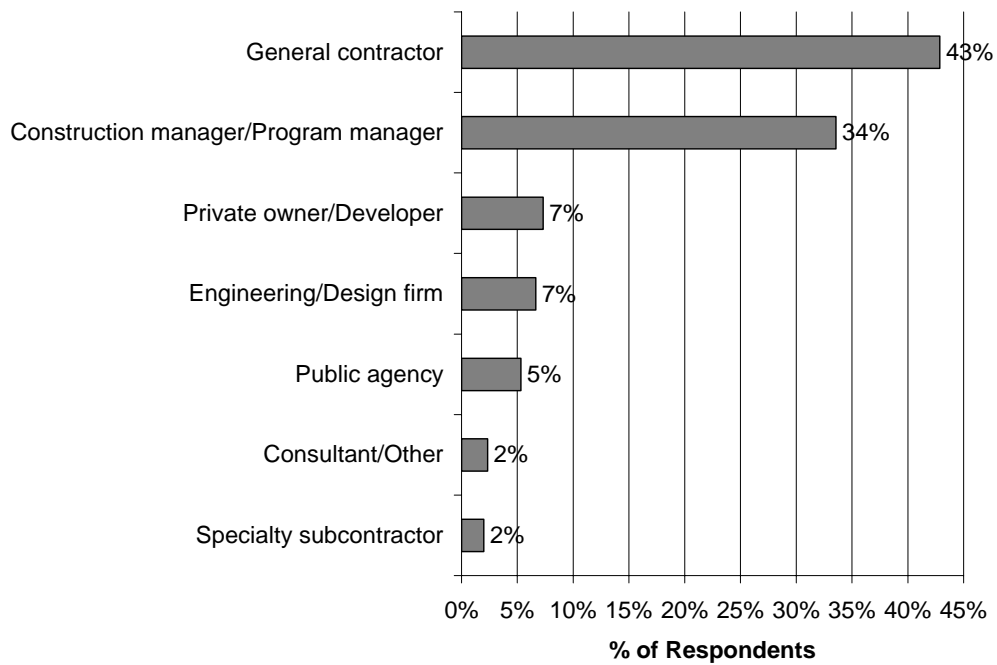
**Capital Improvement and/or Construction Project Volume Last Year (#), (n=294)**



### Construction Segments Served (n=298)



### Customer Organization Description (n=301)

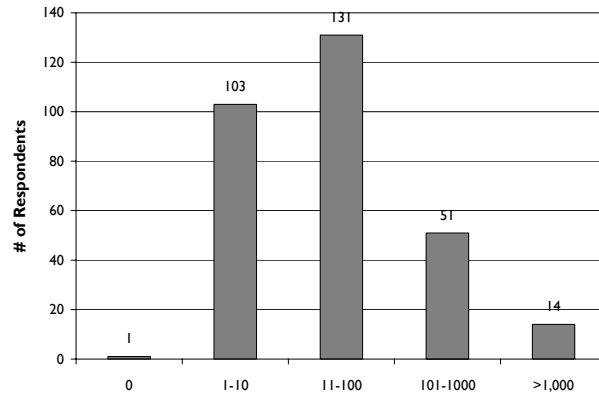


## Project Management Ecosystem

Organizations adopting formal project management systems must support both their internal stakeholders as well as their external supply chain and vendor community.

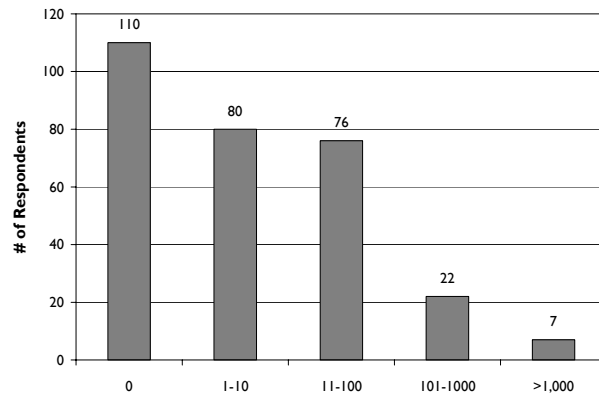
The average number of internal Meridian solution users per organization totals close to 200. For some customers, the actual number ran in the several thousands, with some as high as 5,000. This demonstrates the scalability of the solutions provided by Meridian, and potentially, the ease of implementation and use.

### Estimated Number of Solution Users Internal to the Organization (n=300)



Likewise, the number of outside collaborating companies (e.g., owners, architects/engineers, contractors, subcontractors) who accessed the customer's solution shared similar characteristics with the majority having between one and 100 users.

### Estimated Number of Outside Collaborating Companies Using the Solution (n=295)

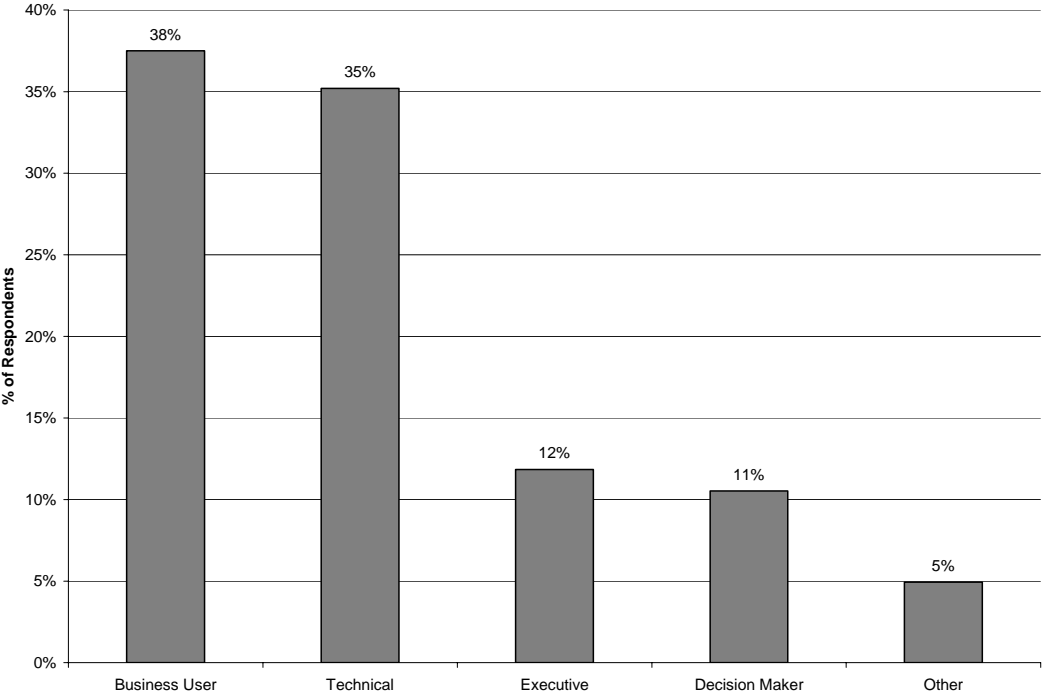


# Individual Question Detail

Which one of the following best describes your role in the organization?

- Technical: I manage the implementation of Meridian solutions within my organization
- Business User: I am a user of the solution (e.g., project manager, engineer, other project team member)
- Executive: I am an executive stakeholder that oversees project performance
- Decision Maker: I was the technology decision maker or lead the technology selection process

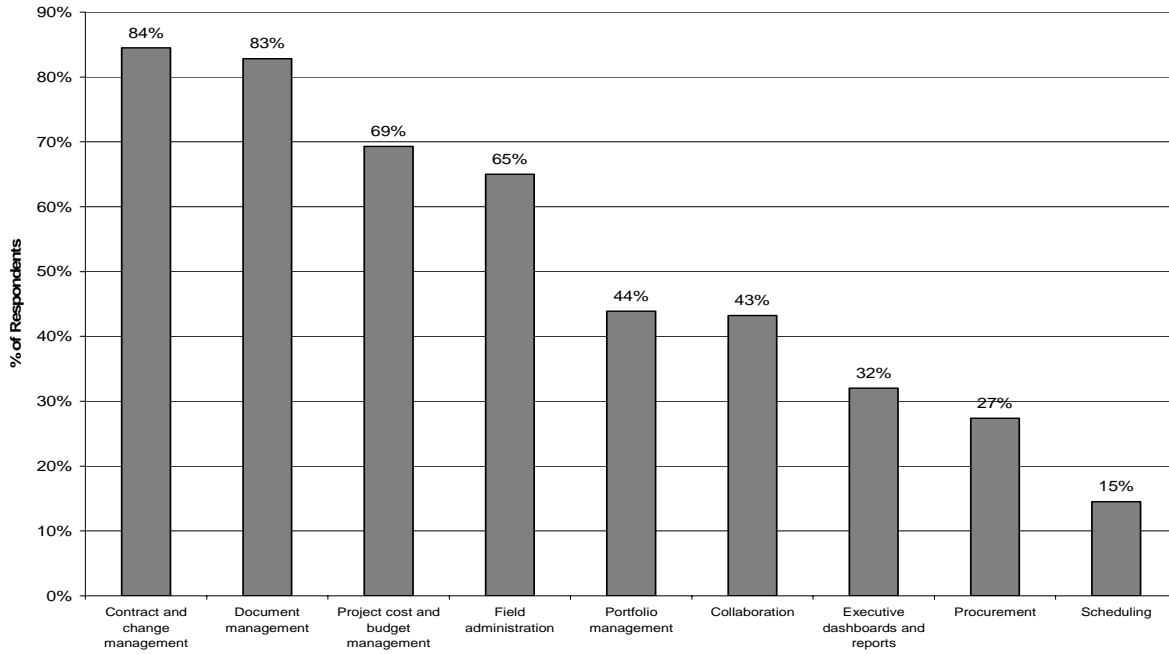
Survey Respondent Role (n=304)



**Indicate which functionality areas below your organization uses on a regular basis.**

More than half of all respondents indicated using the following four functionality areas: 1) Contract and change management, 2) Document management, 3) Project cost and budget management, and 4) Field administration.

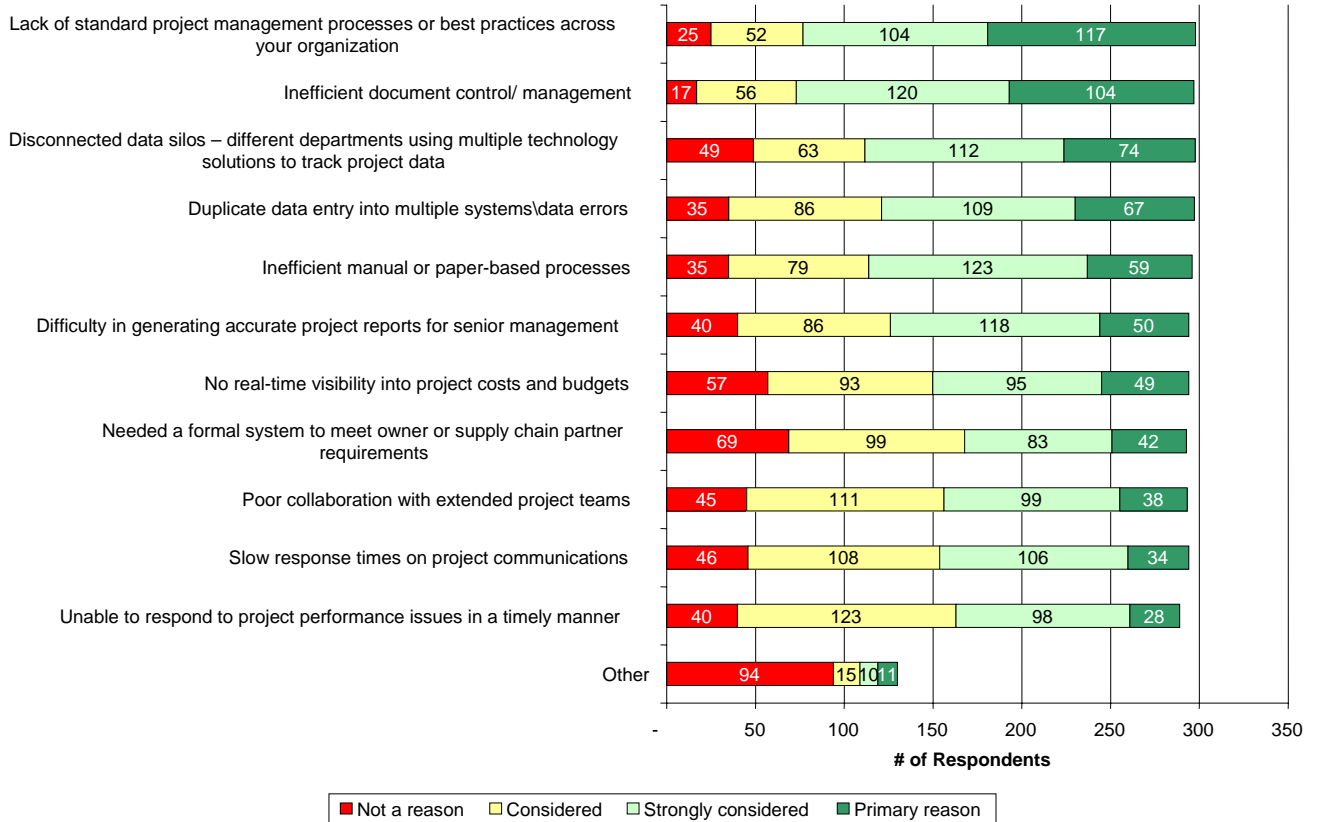
**Functionality Areas Used on a Regular Basis (n=303)**



**To what extent did each of the following business challenges influence your organization to select a formal capital project management solution?**

Survey respondents attempted to address multiple business challenges with a formal capital project management solution. However, the two most often cited as a primary reason included 1) Inefficient document control and management, and 2) Lack of standard project management processes or best practices across the organization.

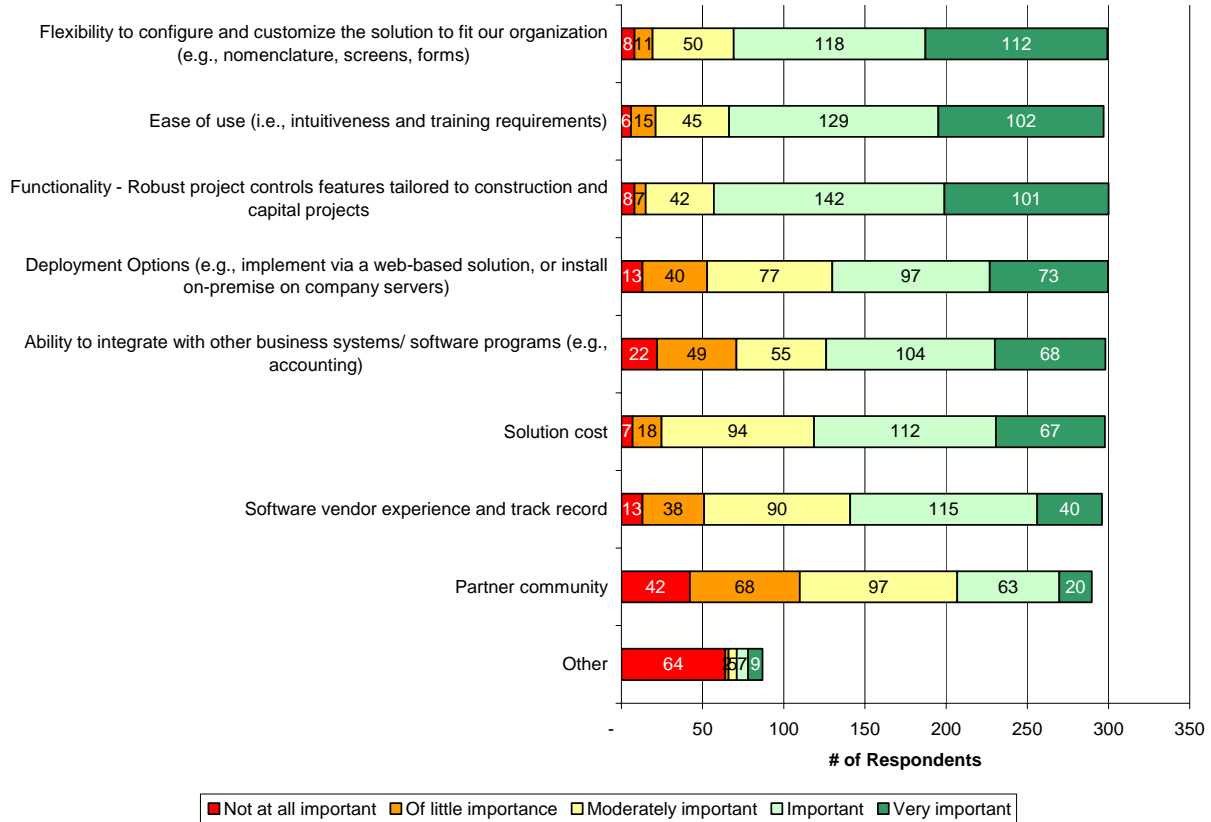
**Business Challenges Influencing the Decision to Select a Formal Capital Project Management Solution**



## How important were the following software characteristics when selecting a specific solution?

Those solution criteria described as “Very important” by more than one-third of survey respondents included 1) Flexibility to configure and customize the solution to fit our organization (e.g., nomenclature, screens, forms), 2) Ease of use (i.e., intuitiveness and training requirements) and 3) Functionality— Robust project controls features tailored to construction and capital projects. This can be interpreted as the need for a customizable solution rather than a rigid, one-size-fits-all program. The number of users reported by these customers would seem to suggest that the Meridian solutions meet these criteria.

### Criteria Used when Selecting a Specific Solution



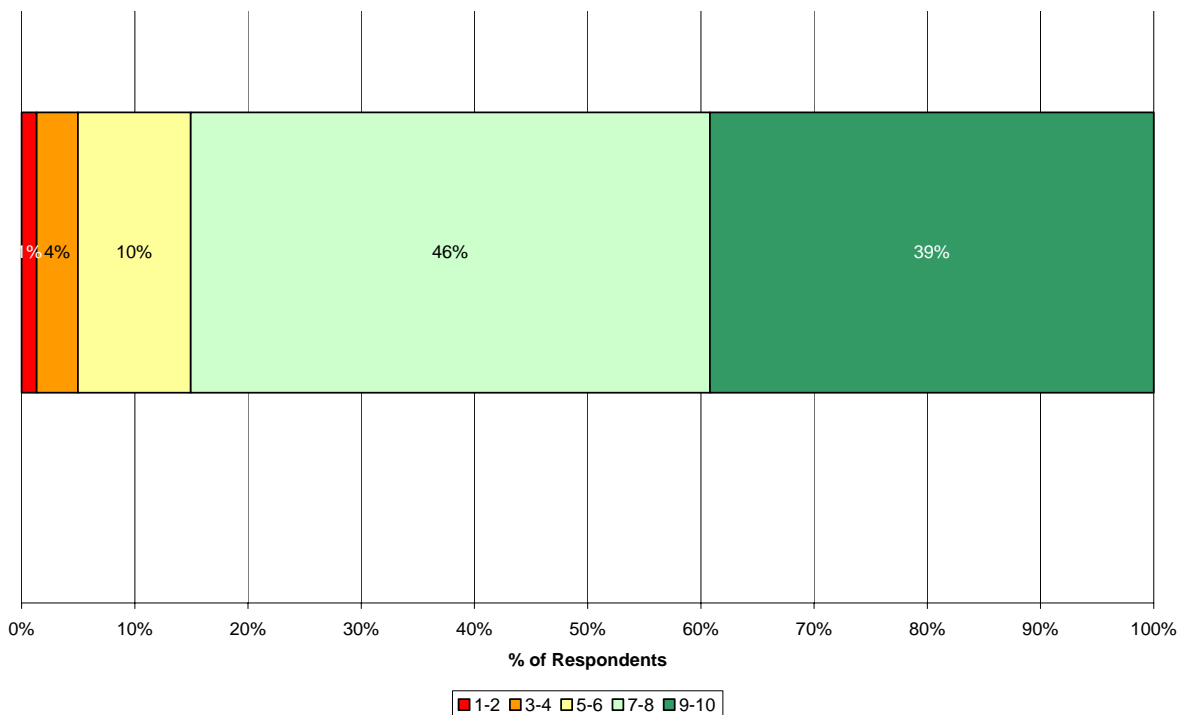
**What led you to select Meridian over the other option(s) you considered?**

Category of Response	Number of Like Kind Responses (n=231)
Prior Experience with Meridian Systems	22
Determined to be a user friendly solution	17
Flexibility and the ability to customize the solution	16
Recommended by others	13
Meridian Systems is considered to be the industry standard	12
Price	8
Meridian's reputation in the industry	7
Client requirement	7
Product features and functions	7
Customer service	4
Quick implementation	1
Advertisement	1
Presentation	1
Other one-off comments or no discernable reason given	115

**How likely are you to recommend Meridian to a friend or colleague?**

Nearly 40% of customers responding to this survey indicated a very high likelihood to recommend their Meridian solution to their friends and colleagues (score of 9 or 10 on a 10-point scale: 1=Not at all likely to recommend, 10=Very likely to recommend). By comparison, fewer than 10% demonstrated potential dissatisfaction with their solution by indicating their likelihood to recommend Meridian to others with a four or less on the same scale.

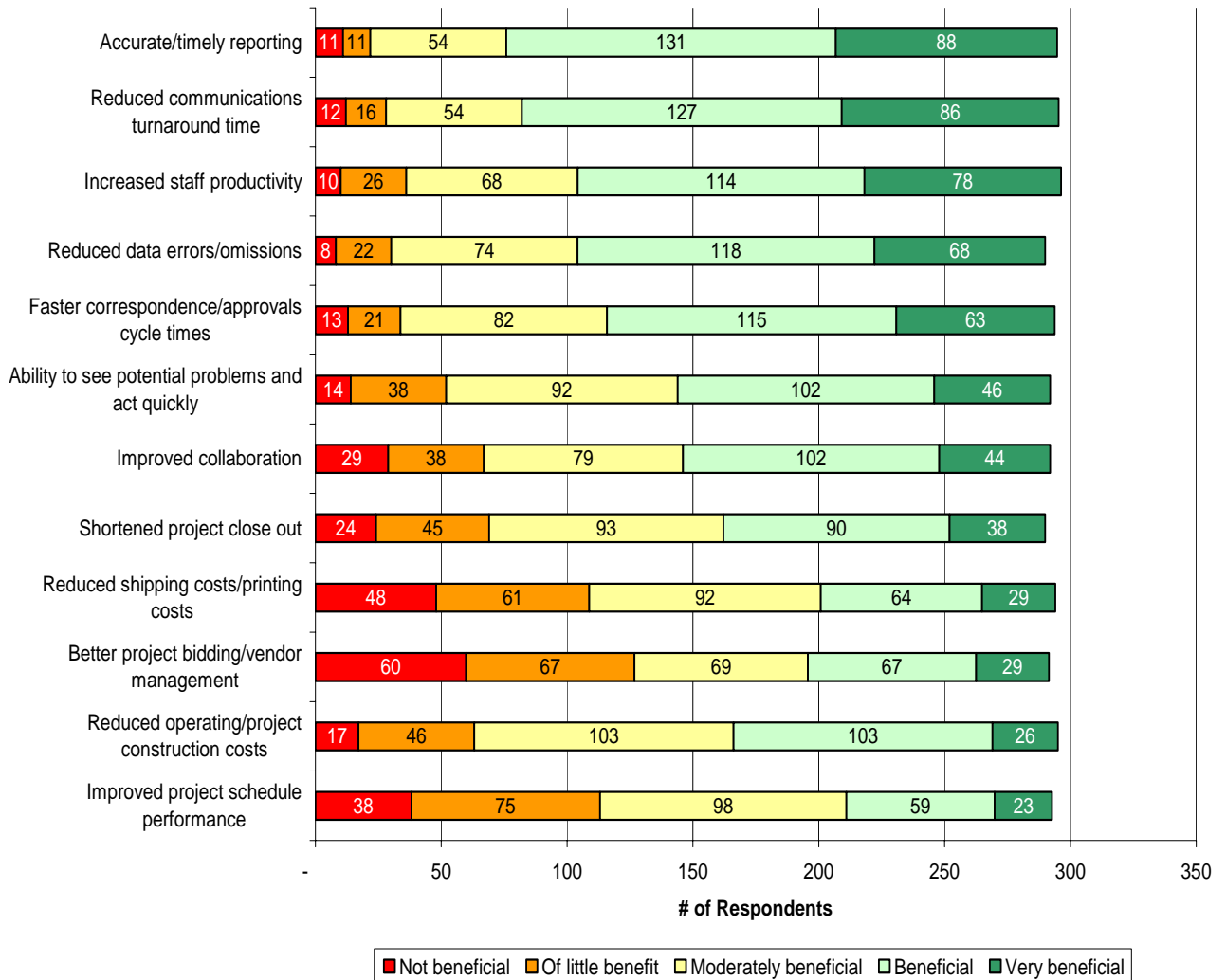
**Likelihood to Recommend Meridian to a Friend or Colleague, (n=301)**



**Describe the project-level benefits your organization has received from using a formal capital project management system.**

Greater than 25% of survey respondents consider 1) Accurate and timely reporting on project performance, 2) Reduced turnaround time on communications/approvals (i.e., change orders, RFIs, submittals) and 3) Increased staff productivity (do more with existing or less staff/reduced man-hours per project) as the most beneficial aspects of their Meridian solution at the project-level. Considering the business challenges and solution criteria previously expressed, it appears that many find their Meridian solution to be serving their needs as expected.

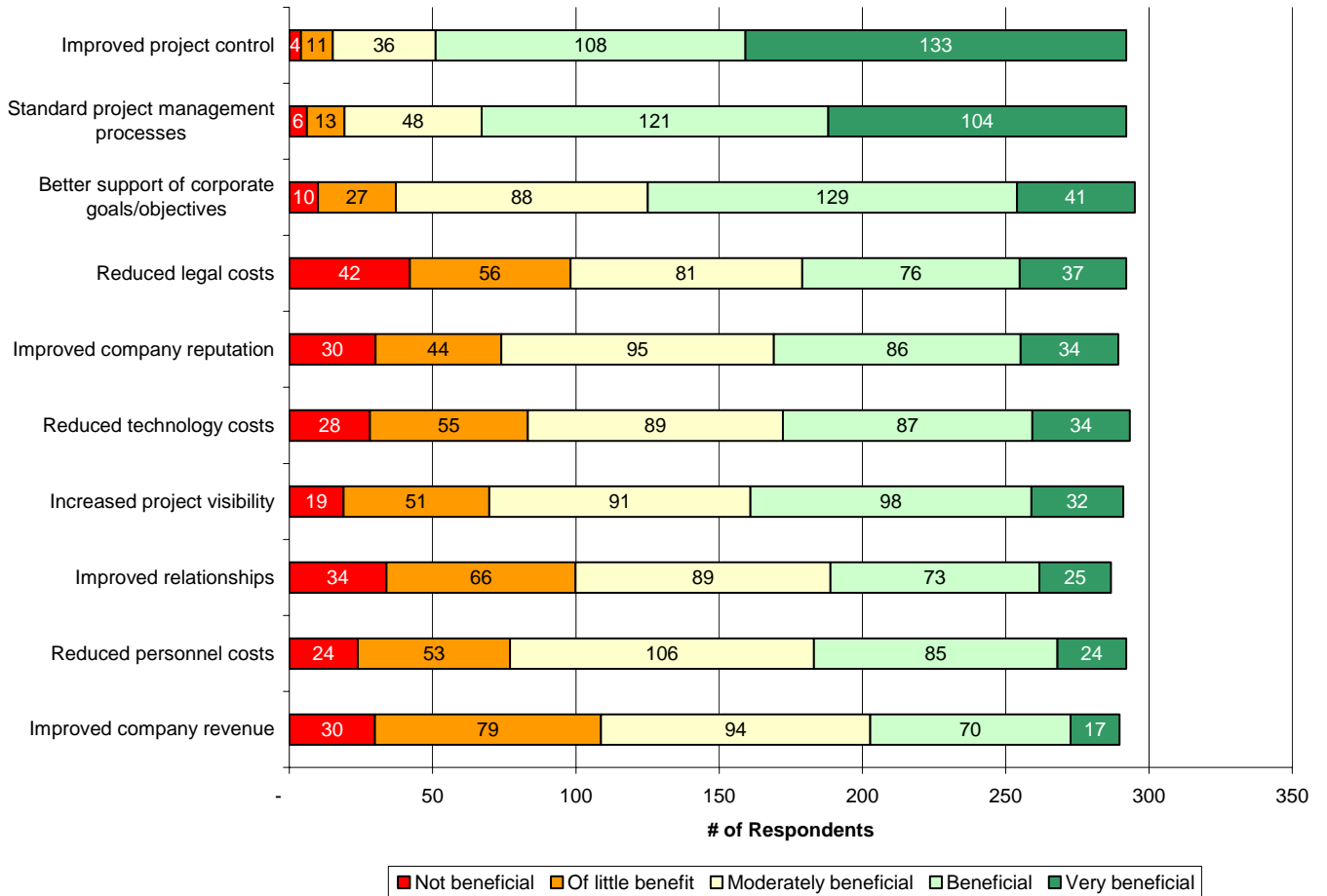
**Project-Level Benefits of the Meridian Solution**



**Describe the organizational-level benefits your organization has received from implementing a formal capital project management system.**

The organizational-level benefits most realized by customers are 1) Improved project control by having one central place for all project information and 2) The ability to implement standard project management processes across the organization. Greater than one-third of survey respondents indicated as such. Again, this demonstrates that the business challenges most organizations were attempting to solve were addressed by their Meridian solution.

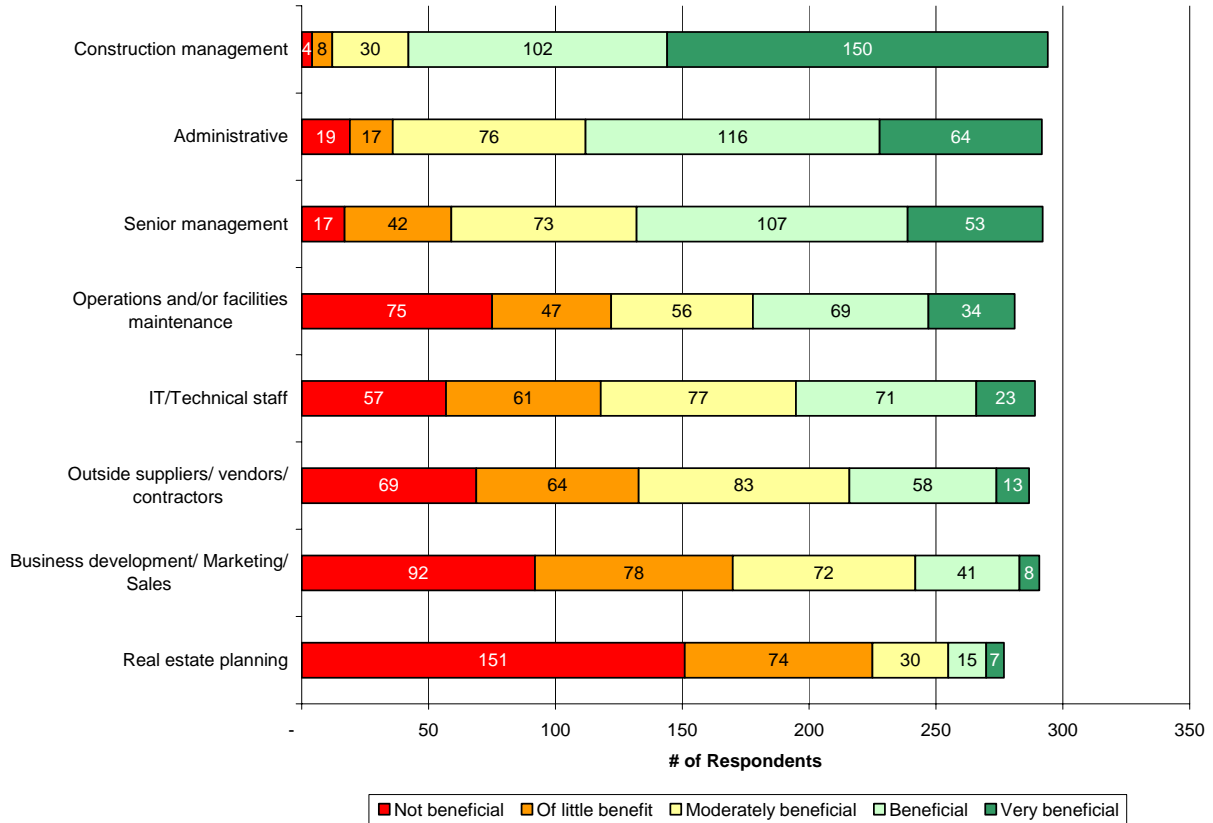
**Organizational-Level Benefits of the Meridian Solution**



**How beneficial has your formal capital project management software solution been to the following groups?**

Of the eight internal stakeholder groups represented, three groups received a higher percentage of “very beneficial” of “beneficial” responses; they are 1) Construction management (85.7%), 2) Administrative (61.6%), and 3) Senior management (54.8%).

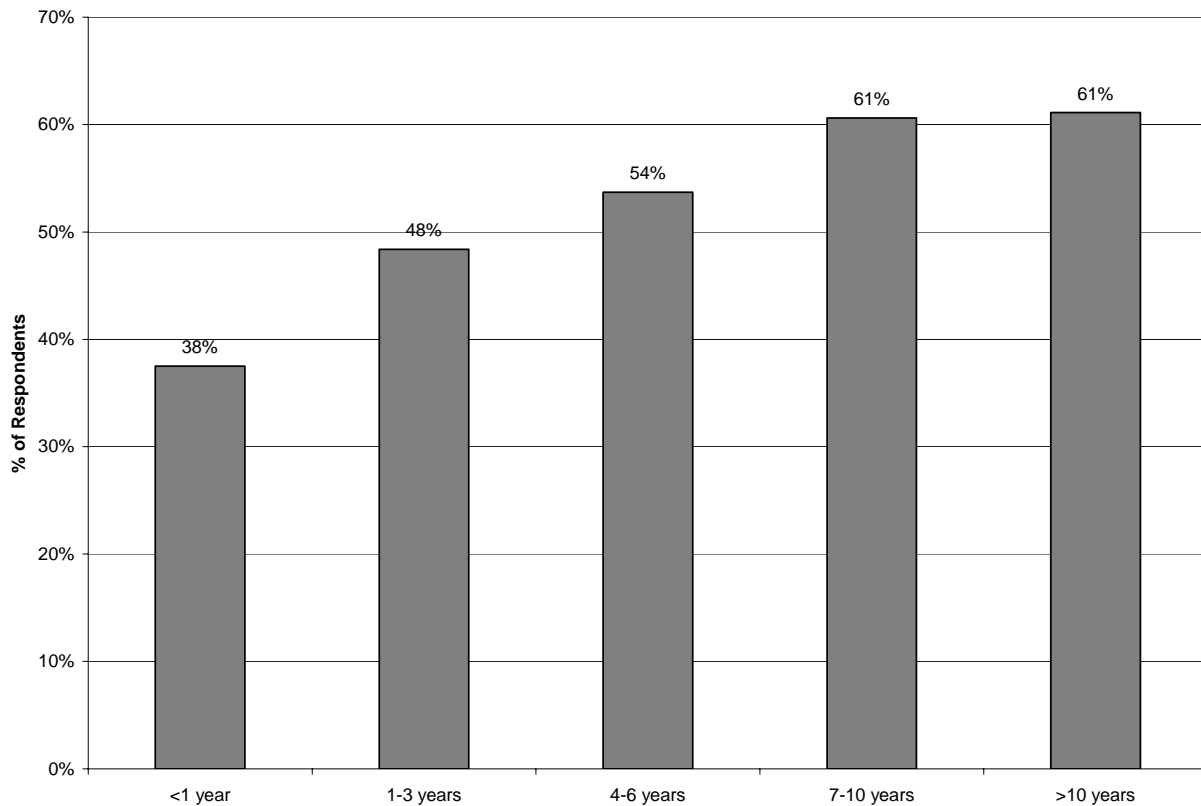
**Customer Groups Benefiting from the Meridian Project Management Solutions**



### What do you estimate to be the annual dollar savings achieved with your Meridian solution?

Estimating the precise annual dollar savings of implementing a formal capital project management solution is certainly a difficult exercise. However, almost two-thirds of survey respondents noted some dollar savings (after the removal of potential data outliers). Of these customers, the average annual dollar savings was \$230,000. Savings ranged from as little as \$1,000 to as much as \$5 million for this subset. When compared to the length of time that the Meridian solution has been in use, the estimated annual dollar savings achieved increases with the length of time in use. Almost 40% of customers with less than one year of use reported annual savings of \$10,000 or more. By the time the solution has been used four to six years, more than 60% can claim such savings.

**Percent of Survey Respondents that Estimate \$10,000 or More in Annual Dollar Savings (ROI) Resulting from Use of the Meridian Project Management Solution by Length of Use (n=144)**



**How high or low a priority are the following items for your formal capital project management software solution in the future?**

For most survey respondents, the two highest priorities for continued use of their Meridian solution are 1) Extend our project management system into other software systems within our organization and 2) Utilize more features or modules that we are not using today.

**Future Capital Project Management Software Solution Priorities**

