

Retail Pulse: E-Commerce & Enterprise App Quality in 2014

Market Research by Martec International
Sponsored by Original Software



Contents

	Page
LINKS Sponsor Foreword: Delivering Change Fast	3
> Executive Summary	4
> Introduction	6
> Major Software Project Plans for the Next 18 Months	7
> Application that Gives the Business Most Problems Because of System Bugs	9
> Ease of Making Frequent Changes to Customer Facing Applications While Maintaining the Desired Level of Quality	11
> Biggest Problem Regarding E-Commerce Web Site and User Acceptance Testing	14
> About Original Software and Martec International	16



Sponsor Foreword: Delivering Change Fast

As the sponsor of this survey, we want to thank the participants in this research, we hope this report gives you an insight into how your application change programme compares to your peers’.

Perhaps you have an e-commerce website or other application that requires frequent, even daily, updates. Or packaged applications from SAP, Oracle, Microsoft Dynamics or others where users do most of the testing. Then your testing is probably time consuming and only partially effective. Where traditional testing tools from the big vendors are a poor fit, Original Software’s award-winning* technology gets the job done fast.

With no technical skills required, business and IT professionals use our technology to streamline website validation, user acceptance testing (UAT), conference room pilots, manual and automated testing, test management, and application audits.

Click on the following retail case studies to find out more:

- > [How Midcounties strengthened product differentiation and customer service](#)
- > [Marston’s smooths the path for SAP upgrades](#)
- > [Arcadia paves the way for supply chain replacement with Original Software](#)



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Executive Summary

This research on **systems testing in retail** incorporates the views of 42 multiple retailers in the UK. The retailers we interviewed have sales totalling £147 billion and over 29,000 stores. This equates to 46% of the market by turnover and so is a very significant sample.

There is a lot of activity planned for the next 18 months in terms of system replacements and implementation. 71% of the retailers we interviewed had major software projects in the pipeline. So it does seem as if we are coming to an end in the investment slow down seen from 2008 to 2013.

Multi-channel Drive

ERP implementations and upgrades are the most common, with a third of retailers with projects in this area. Joint second comes e-commerce and store systems replacements and upgrades (26% of retailers each). Then in fourth place is supply chain projects with 24% of retailers. We believe a major incentive for retailers in implementing new systems is to get closer to their goal of a true multi-channel company with visibility of stock, sales and customers in all channels.

Of course such a high level of systems replacement brings problems in terms of systems bugs.

- 69% of retailers suffer problems because of systems bugs already.
- E-commerce systems give retailers most problems because of systems bugs (14% of companies).

E-commerce systems cause particular problems because of the numerous different devices, browsers and operating systems that customers use to access a retailer's web site. The options that need to be tested for each software change are massive. The next most serious offenders are business intelligence, logistics / supply chain and store systems (6% of retailers each).



Retailers interviewed have sales totalling £147 billion and over 29,000 stores.”



> Retailers gave an average mark of 5.9 out of 10 to show how easy it is to make frequent changes to customer facing applications while maintaining the desired quality level.

This shows that they do not find it very easy.

The interviewees fell into two camps, half were very genuinely unhappy about the way systems are changed and the negative impact this has on their business because of poor testing.

We suspect these people do not have automated processes

The other half are reasonably happy, they know it is a complicated job to test systems thoroughly and efficiently but have found solutions to do this effectively.

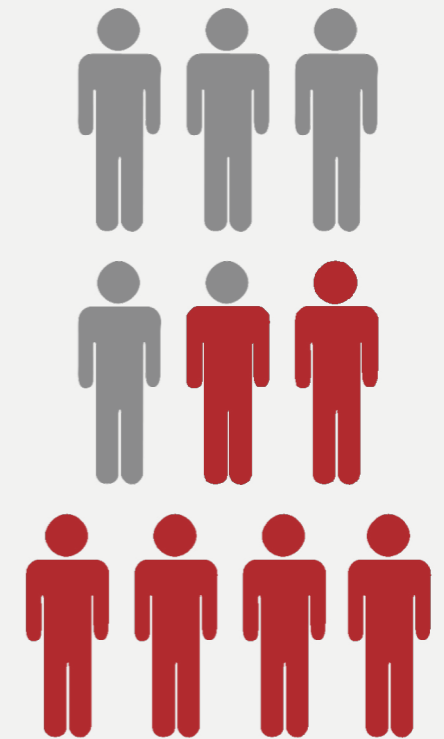
The two biggest problems that retailers have regarding web site testing and User Acceptance Testing are:

- Lack of resourcing (18%) and a
- Lack of automation to the process (17% of retailers).

It is likely that the business issues caused by inadequate systems will get worse as the pace of retail change, globalisation and omni-channel retailing increases. So retailers who do not have suitable processes and resources for systems testing will fail their customers more frequently and so will suffer reduced profitability.



Retailers gave an average mark of **5.9 out of 10** for frequent application changes at desired quality.”



Introduction

The results of this survey are based on interviews with 42 senior executives in UK retailers.

All the respondents are senior level executives involved with systems testing. 95% of those interviewed were IT professionals and the other 5% were responsible for e-commerce.

Retailers Interviewed

The interviews were conducted in July and August 2014. The companies interviewed have sales totalling £147 billion and represent a very significant 46% share of the total UK retail market.

By retail segment the retailers interviewed broke down into 27% food and drug (including those companies operating supermarkets, c-stores, co-ops, other food specialists and pharmacy chains), 26% small format speciality (including clothing, footwear, accessories, mobile phones, jewellers and other retailers operating from high street type locations with small sized stores), 17% large format speciality (such as DIY, electrical and

furniture and carpet retailers operating from large sized out of town locations), 10% each for hospitality, leisure and mass merchants and 5% each for department store chains and home shopping retailers. This represents a significant sample for each retail sector.



27% Food & Drug

26% Small Format Speciality

17% Large Format Speciality

10% Hospitality and Leisure

10% Mass Merchants

5% Home Shopping

5% Department Stores

Major Software Project Plans for the Next 18 Months

To put comments on systems testing in context we felt it would be useful to assess the level of systems replacement and implementation projects in the retail market.

The results showed that the retail systems market is finally on the move again with **71%** of the retailers interviewed carrying out major **new software projects** in the **next 18 months**. There has been very little activity from 2009 until 2013, but it appears that retailers are now feeling more optimistic about the future and are investing in new and better systems.

ERP Implementation or Upgrade

One third of the retailers we interviewed are carrying out an Enterprise Resource Planning (ERP) implementation or upgrade. These projects affecting all core retail systems tend to be fairly lengthy and so will usually take at least 18 months to implement. The key retail ERP systems for multiple retailers are Microsoft Dynamics, Oracle and SAP. A major motivation for retailers investing in ERP systems is to

ensure a completely integrated omni-channel customer experience with a common stock pool across all channels to reduce stock holding costs.



“

We have hundreds of projects underway at any given time across all areas of the business; many of them will involve software to a greater or lesser extent.”

Head of Store Systems,
Fashion Retailer

**71% new
projects
within 18
months**

> In second place comes e-commerce and store systems implementation or replacement projects, with 26% of retailers investing in this area. E-commerce is, for many retailers, their main source of growth. Many retailers are replacing store systems to ensure they can cope with cross channel purchasing, enquiries and returns.

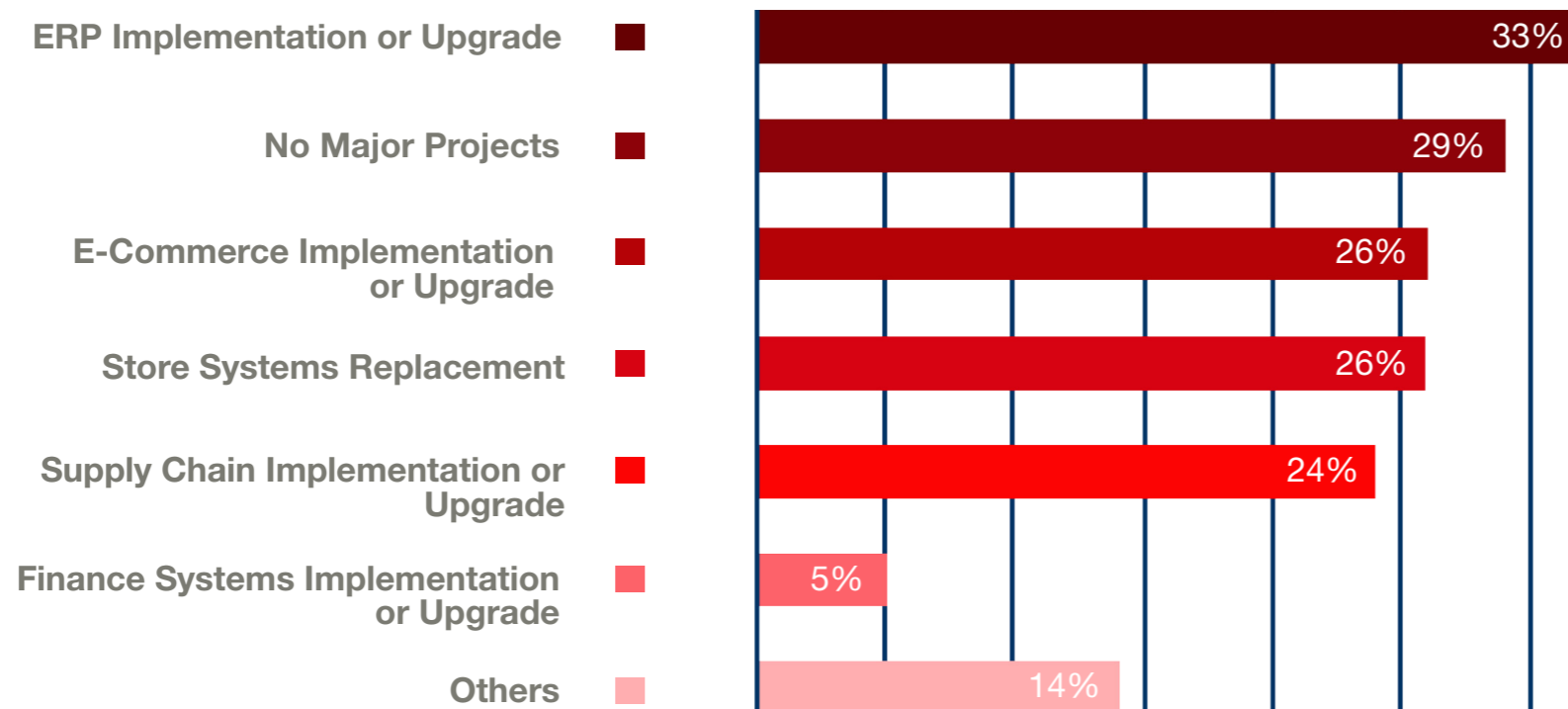
Supply chain implementation and upgrades,

cited by 24% of retailers, are also important and again mostly relate to improving the multi-channel experience.

Finance systems implementation or upgrades are the only other type of software project mentioned by more than one retailer, with 5% of retailers carrying out finance projects.

Then 14% of retailers are carrying out a range of different software projects.

Major Software Project Plans for the Next 18 Months



A major motivation for retailers investing in ERP systems is to ensure a completely integrated omni-channel customer experience with a common stock pool across all channels to reduce stock holding costs.”

Application that Gives the Business Most Problems Because of Systems Bugs

Over two thirds of the retailers we interviewed had problems with applications that cause them systems bugs.

E-commerce systems are the biggest offenders, 14% of retailers say they cause the business most problems because of systems bugs. Web site systems are available 24/7 and are most customers' only direct connection with a retailer and their systems so bugs are more obvious and more of a **block to doing business**. In stores it is more common for sales staff to be operating the POS system and shielding the customer from any potential systems problems. All the possible ways a customer can access a retailer's web site adds to the problem, as this fashion and lifestyle retailer's comments illustrates.

Joint second, mentioned by 6% each, are business intelligence, logistics / supply chain systems and store systems. All of these are retail systems where lots of changes are made regarding stock, sales and customer information across all channels.

“ It's difficult to test the website against every combination of device, browser, operating system etc. and to simulate real-life conditions – the more functionally rich the website the more difficult it is to test. Non-website user acceptance testing such as ERP is a challenge because it involves every aspect of the business and becomes hard to manage and co-ordinate, particularly with inter-department dependencies.”

Head of IT, Fashion and Lifestyle Retailer

“

E-commerce systems are the biggest offenders of systems bugs.”



> ERP systems in general were specifically mentioned as the biggest cause of systems bugs by 5% of companies. Of course all the other applications, that come higher up the list, can be components of an ERP system.

The remaining 32% of retailers cited other applications as the cause of most business problems because of systems bugs.

But none of the applications were mentioned by more than one retailer.

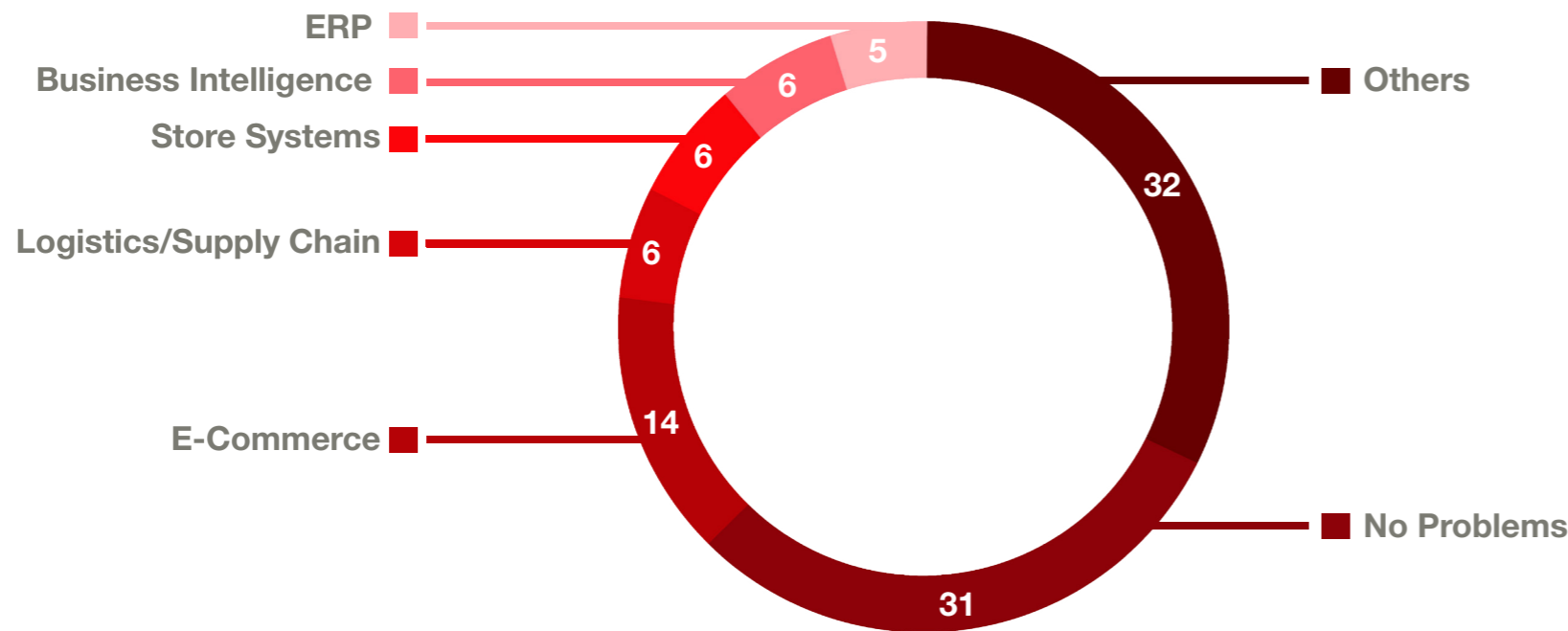
It is likely that the problems **poor systems testing** raises for retailers in doing business has been underestimated in this research as not everyone we interviewed actually carries out systems testing. This comment from a sportswear retailer illustrates the point.



We currently do user acceptance testing; systems testing is not something we currently practise.”

Systems Integration Manager, Sports Retailer

Application that Gives the Business Most Problems Because of System Bugs



% Percentages of Total

Ease of Making Frequent Changes to Customer Facing Applications While Maintaining the Desired Level of Quality

We asked the executives in the survey to give a mark out of 10 for how easy it is to make frequent changes to customer facing applications while maintaining the desired level of quality. The average for the group is 5.9 out of 10, where 10 is easy and 1 is difficult.

This means that retailers do not find it that easy to make frequent changes to applications without incurring systems bugs and problems. You would expect an average score of about 7 or 8 to indicate satisfaction with the level of changes that can be made without impacting quality.

Looking at the spread of results there are two distinct groups. Almost half are rather dissatisfied with their systems testing capabilities, 49% of the retailers we talked to score an average of 5 out of 10 or lower.

This means that they are genuinely **unhappy about the way systems are changed** and the negative impact this has on their business.

It is likely that these companies do not have any automated systems testing processes and so rely on internal teams to do the best they can. This grocery retailer describes the problem well.

“ We don’t have anything to assist the testing process and the volume and complexity of testing just goes up all the time with all the promotions and product offers we have.”

General Manager IT, Grocery Retailer



- Many of the retailers complained of the internal pain that changes to software causes them, including this department store retailer.

“It is a painful process but there is no visibility for the customers. We put obstacles in our own way because we make frequent changes - at least once a quarter there is a major change or implementation to the website.”

Application Testing Manager, Department Store Retailer

The pace of change in retail makes systems testing particularly challenging. Modifications to systems are needed in hours or days as this grocery retailer comments.

“It is hard to meet the deadlines set for projects when there is such a quick turnaround expected.”

Testing Manager, Supermarket Retailer

Also the globalisation of many businesses adds huge complexity to the task of systems testing as this fashion retailer explains.

“The challenge for user acceptance testing of our store systems is the large number of configuration variants and languages we support across the globe.”

Head of Systems, Fashion Retailer

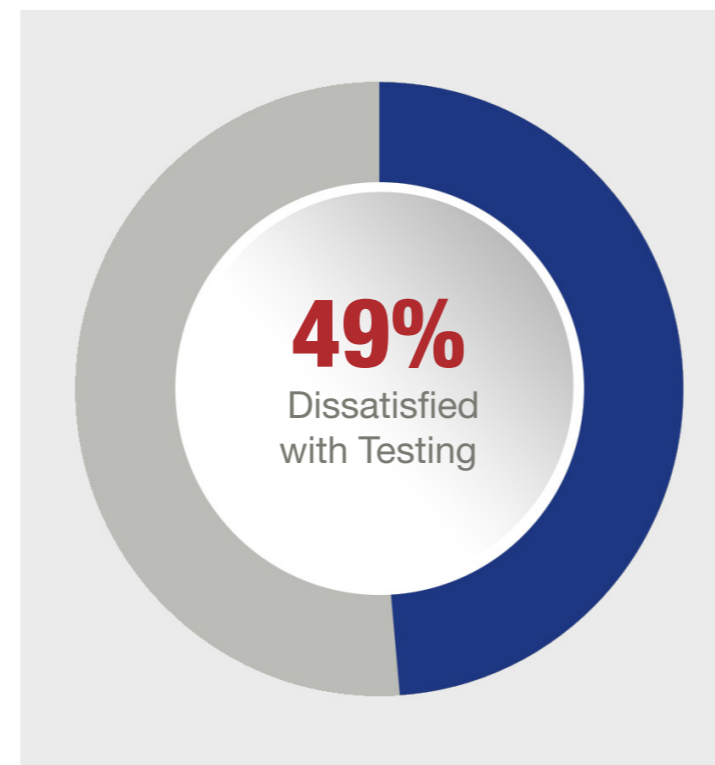
As retailers grow the problems caused by software changes multiplies exponentially and systems testing gets more arduous. This DIY retailer highlights the issue of small changes having a big impact.



“This (system testing) is always a reasonably large challenge due to the scale of our business. Our functionality is so broad that small changes can have a large impact.”

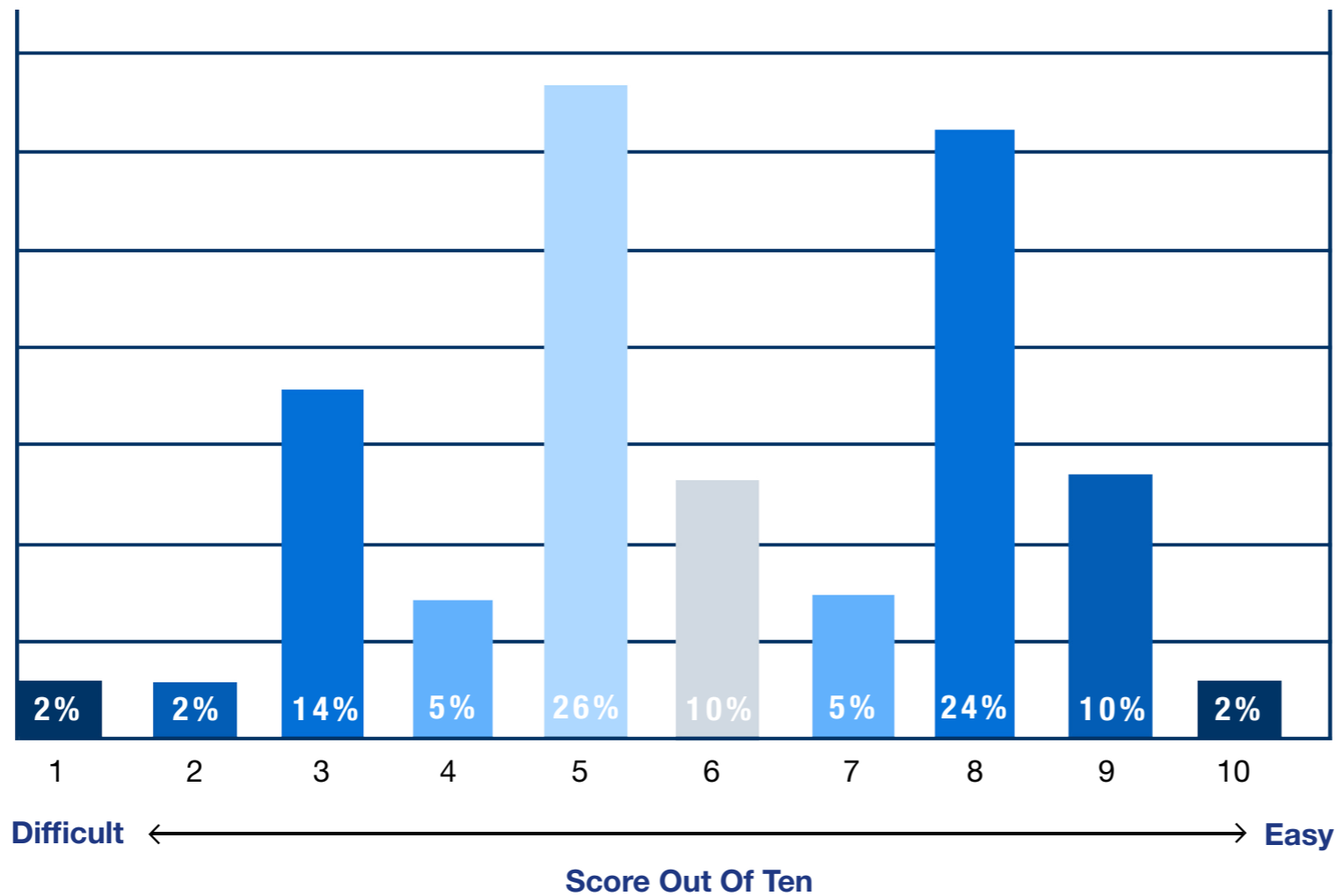
Business Services Manager, DIY Retailer

The other group are the lucky ones - there are 51% who score 6 or more out of 10, including a large group of 24% of the survey that score 8 out of 10. These companies have no serious problems when systems are changed. This is either because they are using software to automate the testing process or have skilled, dedicated resources to carry out this activity.



> **How Easy is it for you to Make Frequent Changes to Customer Facing Applications While Maintaining the Desired Level of Quality**

% Of Retailers



As retailers grow the problems caused by software changes multiplies exponentially and systems testing gets more arduous.”



Biggest Problem Regarding E-Commerce Web Site and User Acceptance Testing

There are two key problems regarding web site and user acceptance testing.

A lack of resourcing to test properly, highlighted by 18% of respondents and a lack of automation to the process, quoted by 17%. This grocery retailer highlights the problems of an under resourced IT department for testing.

“Resourcing is the biggest problem we have regarding systems testing.”

Finance and IT Director, Grocery Retailer

Only 17% of the retailers we interviewed do not have any real problems regarding systems testing and we believe that these are companies that have an automated testing system already in place. This convenience store retailer tells us about the problems of a lack of automation.

“Lack of automation is the main problem in projects we have done in the past. Developers can't automate reports and this has a knock on effect.”

Head of IT, Convenience Store Retailer

This department store retailer describes the challenges that they manage to overcome each month.



“We make a huge amount of changes each month and have big teams testing. We've got thousands of automated testing programs but they are not always the silver bullet. We've got 9,000 different routes through checkout and all the different browser types to test for. But we manage to do it fairly successfully each month.”

IT Service Improvement Manager, Department Store Retailer

Timeliness of testing is an issue for 9% of companies. Retail is a very fast moving business and this is not that surprising.

> Next comes the thoroughness of testing by users, highlighted by 8% of companies. Given how stretched many head office teams are in retail it is difficult to test systems changes thoroughly and problems often slip through the net in these companies.

Disruption to the business when systems are not tested properly is a problem for 5%

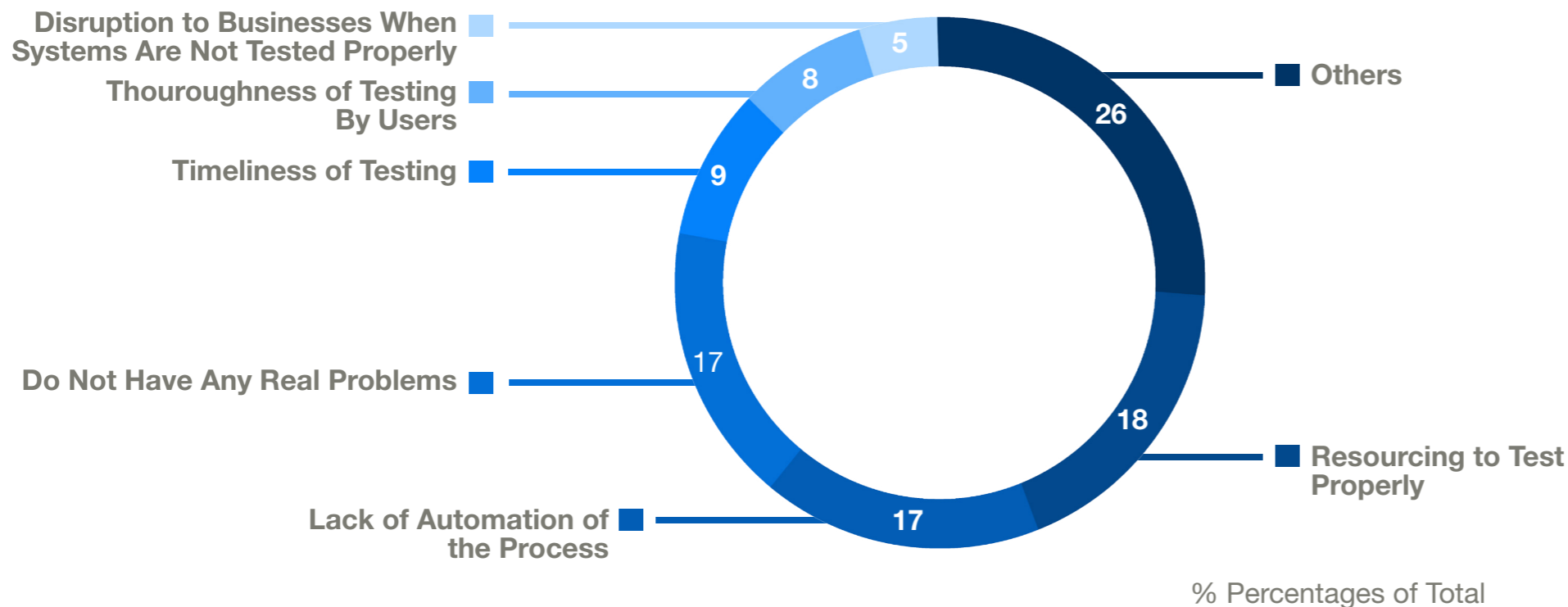
of companies. But in most retailers systems bugs are normally spotted before a change is released. Then a variety of other problems are recounted by the remaining 26% of companies, though none of these are mentioned by more than one company. Attention to detail is one that is described by this convenience store retailer.



For user acceptance testing, attention to detail is the biggest problem. Occasionally a bug or two can creep through. For e-commerce website testing, we have B2B systems with multiple ways for creating orders, testing all these ways robustly is the biggest problem.”

Retail Systems Manager,
Convenience Store Retailer

Biggest Problem Regarding E-Commerce Web Site and User Acceptance Testing



Martec International

Martec International is a specialist retail consulting and training company and the market leader in this type of research. Martec assist retailers to improve their business performance and help suppliers to retail to execute their go to market strategies more successfully.

Clients include retailers, technology

and merchandise vendors, ingredient manufacturers, CPG and FMCG companies, banks, telecommunications companies and venture capitalists.

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Original Software

Original Software dramatically reduces the effort required to ensure your head office, stores, supply chain and e-commerce applications, meet the changing needs of your business. Thousands of knowledge workers and IT professionals around the world use it to streamline processes such as user acceptance testing, conference room pilots, manual and automated testing, project tracking, and regulatory audit of applications.

The software provides the fastest way to capture and share business processes, validate application functionality, and communicate real-time project status. You can apply it to any data-centric application. Our customers report their productivity doubling, tripling, quadrupling – or better – enabling them to deliver functionality more frequently and meet strategic objectives more rapidly.



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