

2023

State of Digital Quality in Finance

APPLAUSE^o



Contents

- 03** Methodology
- 04** Functional Testing
- 08** Accessibility Testing
- 11** Localization Testing
- 14** Payment Testing



For recommendations on how finance organizations can improve digital quality, read our blog post.



Methodology

We analyzed results from a representative sample of closed test cycles executed for banks, financial services providers, fintechs and related organizations between January 1, 2022 and December 31, 2022. A test cycle is how Applause defines each unique set of tests: a client sends us testing parameters — builds, scope, coverage, etc. — and we create a test cycle that includes the specific test cases and scenarios to be tested.

We analyzed data across testing categories and regions spanning over 7,700 bugs, 4,500 individual mobile devices, 450 unique desktops, 360 OS versions and thousands of device/OS/browser combinations. Testing included websites, apps, connected devices, mobile web and mobile apps in real-world scenarios. We evaluated endless combinations of networks, browsers, payment instruments and integrations for finance and fintech customers worldwide.

Device coverage

The figures in this report reflect retail tests across the following scope worldwide:

Mobile Devices

Mobile makes	57
Mobile models	973
Mobile OSes	11
Mobile OS versions	224
Mobile web browsers	30
Mobile carriers	389

Payment Methods

Credit/debit cards	948
E-Wallets	30
Mobile wallets	58
Alternate payments	44

Desktop

Desktop web browsers	26
Desktop OSes	8
Desktop OS versions	142

Functional testing

The Data Set

A representative sample of functional tests for finance organizations.



6,080
test cycles



117
countries



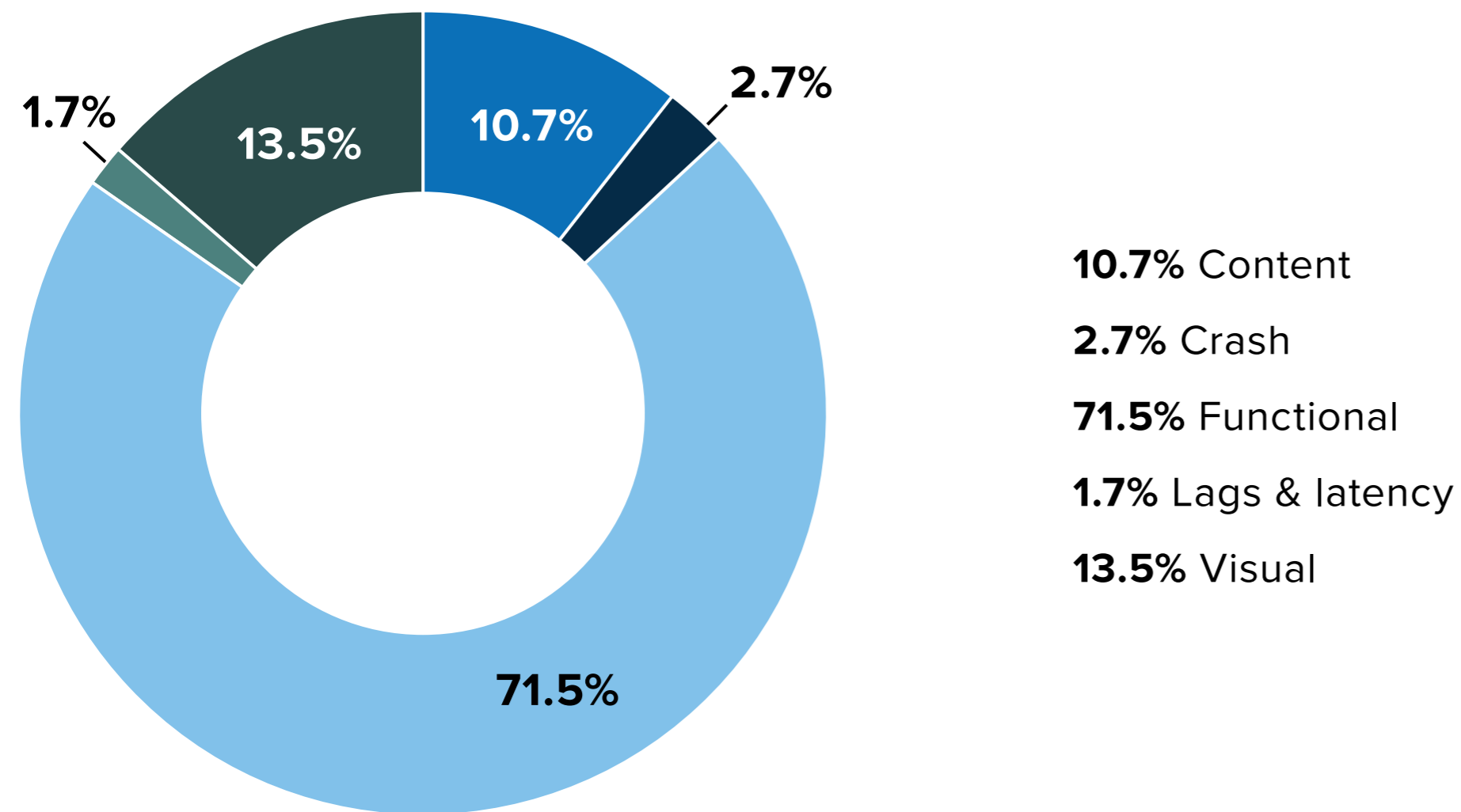
31,800
bugs

Bug type definitions

Bug Type	User Experience
Content	“This doesn’t read right” Typos, grammatical issues
Crash	“The app shut down” App closes or quits unexpectedly
Functional (workflow errors)	“This doesn’t work right” Buttons don’t respond when clicked, searches return incorrect results
Lags and latency	“This is taking too long” Sluggish performance, freezes
Visual	“This doesn’t look right” Misaligned content or page elements, content doesn’t fit an area

Bug type breakdown

See the prevalence of each type of bug across the finance data we analyzed:



Crashes decreased slightly from 4% last year, as did visual bugs, dropping from 19.4%. Content defects more than doubled this year, comprising just 4% of last year's errors.

Functional or workflow errors remained unchanged, dominating the types of defects testing uncovered and demonstrating the ongoing need to thoroughly test applications before releasing them into the wild.

Average device coverage: finance vs all industries

In this table, a configuration refers to a unique browser and OS combination (desktop) or device and OS combination (mobile & tablets).

	ALL	Finance
Test cycles	37,117	6,080
Average number of desktop configurations tested per cycle	9.2	8.7
Mobile & tablet configurations tested per cycle	14.8	12.3
Credit & debit cards tested per cycle	4.8	3
E-wallets tested per cycle	1.8	1.3
Mobile wallets tested per cycle	2.6	2.2

Most popular device configurations finance organizations tested

While these were the configurations Applause tested most for finance companies in each region, it's vital to review and prioritize your customer data and preferences to develop your test plan per build or release. Also, consider OS adoption rates in your plan – for example, iOS users upgrade OSes far more frequently than Android users. Determine what portion of testing resources you want to allocate to current versus older OS versions.

Region	Desktops	Mobile & tablet
Africa	<ol style="list-style-type: none"> 1. Windows 10 64-bit, Chrome 2. Windows 10, Chrome 3. Windows 10, Firefox 	<ol style="list-style-type: none"> 1. Huawei P20 Pro, Android 10 2. Samsung Galaxy S10, Android 12 3. Apple iPhone 8 Plus, iOS 14.8.1, Safari 4. Samsung Galaxy S10, Android 11
Asia	<ol style="list-style-type: none"> 1. Windows 10, Chrome 2. Windows 10 64-bit, Chrome 3. Windows 11, Chrome 4. Windows 10, Firefox 5. Windows 11 Home, Chrome 	<ol style="list-style-type: none"> 1. Samsung Galaxy S10, Android 12 2. Samsung Galaxy S20, Android 11 3. Samsung Galaxy S8, Android 9.0 (Pie) 4. Sony Xperia M2, Android 5.1.1 5. Google Pixel 2, Android 11
Europe	<ol style="list-style-type: none"> 1. Windows 10, Chrome 2. Windows 10 64-bit, Chrome 3. Windows 10 64-bit, Firefox 4. Windows 11 Pro, Chrome 5. Windows 11, Chrome 	<ol style="list-style-type: none"> 1. Samsung Galaxy S8, Android 9.0 (Pie) 2. Samsung Galaxy S10 Plus, Android 12 3. Samsung Galaxy S9, Android 10 4. Samsung Galaxy S20 Plus, Android 12 5. Huawei P20 lite, Android 9.0 (Pie)x

Most popular device configurations finance organizations tested (continued)

Region	Desktops	Mobile & tablet
Oceania	<ol style="list-style-type: none"> 1. Windows 10 64-bit, Firefox 2. Windows 10 64-bit, Chrome 3. Windows 10, Chrome 4. Windows 10 Home, Chrome 5. Windows 11 Home, Chrome 	<ol style="list-style-type: none"> 1. Samsung Galaxy Note 9, Android 10 2. Huawei Mate 20 Pro, Android 10 3. Apple iPhone 11, iOS 15.0.2 4. Apple iPhone 7 Plus, iOS 15.1 5. Apple iPad Air 2 Wi-Fi, iPadOS 14.4.2
North America	<ol style="list-style-type: none"> 1. Windows 10 64-bit, Chrome 2. macOS Catalina 10.15.7, Chrome 3. Windows 11 Home, Chrome 4. Windows 10, Chrome 5. Windows 11, Chrome 	<ol style="list-style-type: none"> 1. Samsung Galaxy A50, Android 11 2. Samsung Galaxy S21 5G, Android 12 3. Samsung Galaxy S10 Plus, Android 10 4. Samsung Galaxy S21 5G, Android 12, Chrome 5. Samsung Galaxy S10 Plus, Android 12
South America & LATAM	<ol style="list-style-type: none"> 1. Windows 10 64-bit, Chrome 2. Windows 10 64-bit, Microsoft Edge 3. Windows 10, Chrome 	<ol style="list-style-type: none"> 1. Samsung Galaxy S8, Android 9.0 (Pie) 2. Motorola Moto G 5G, Android 10 3. Samsung Galaxy S20 FE, Android 12

Accessibility testing

The Data Set

A representative sample of accessibility tests across finance organizations.



158
test cycles



11
countries

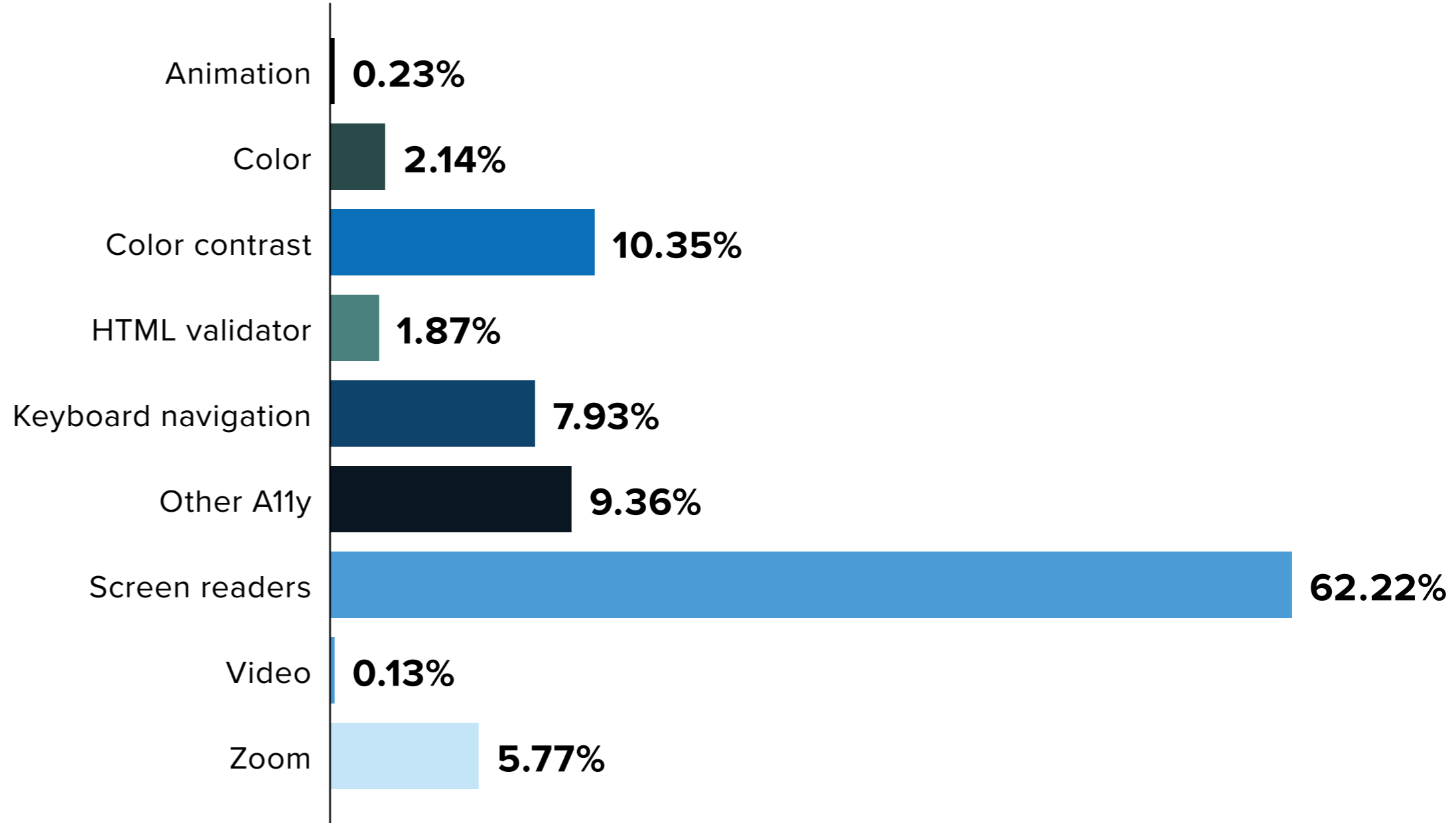


4,764
bugs

Bug type breakdown

See the prevalence of each type of bug across the data we analyzed.

Screen reader defects continue to make up the vast majority of all accessibility errors, changing less than half a percentage point from last year. Color and color contrast defects and keyboard navigation all decreased slightly – approximately one percentage point each. The number of zoom errors more than doubled.



Bug type definitions

Bug Type	User Experience
Animation	“I don’t know what’s happening on the screen” A user can’t see content that moves, such as animation telling users to perform an action
Color	“This doesn’t make sense” Users can’t identify information communicated only through color
Color contrast	“This all looks the same” Insufficient color contrast ratio
HTML validator	“This page seems like something is missing” Issues in HTML code that do not impact the keyboard navigation and screen reader behavior
Keyboard navigation	“I can’t use my keyboard to navigate” People using alternative keyboards or speech input devices as keyboard emulators cannot navigate a page

Bug Type	User Experience
Screen readers	“My screen reader isn’t working” Readable text for screen readers is missing
Other A11y	“This isn’t working for me” Poor user experience for persons with disabilities
Video	“I can’t tell what’s going on in this video” Missing closed captions or audio descriptions
Zoom	“I can’t see what I need to” Text gets cut off when a user zooms in beyond a certain point

Average device coverage: finance vs all industries

In this table, a configuration refers to a unique combination of browser, OS and screen reader.

Industry	Test cycles	Average number of desktop configurations tested	Average number of mobile & tablet configurations tested
ALL	1,273	3.4	3.1
Finance	158	3.9	4.1

As companies work to comply with local regulations and conform to industry- and region-specific requirements, in-market testing on the most common devices, browsers and networks is a crucial component in delivering fully accessible experiences for all users.

While the number of test cycles in the finance industries makes up a small portion of the total, on average, finance companies typically tested more devices than other industries. Given the need to ensure successful financial transactions in many cases, this expanded coverage comes as no surprise.

Localization testing

The Data Set

A representative sample of localization tests across finance companies.



42
test cycles



52
countries



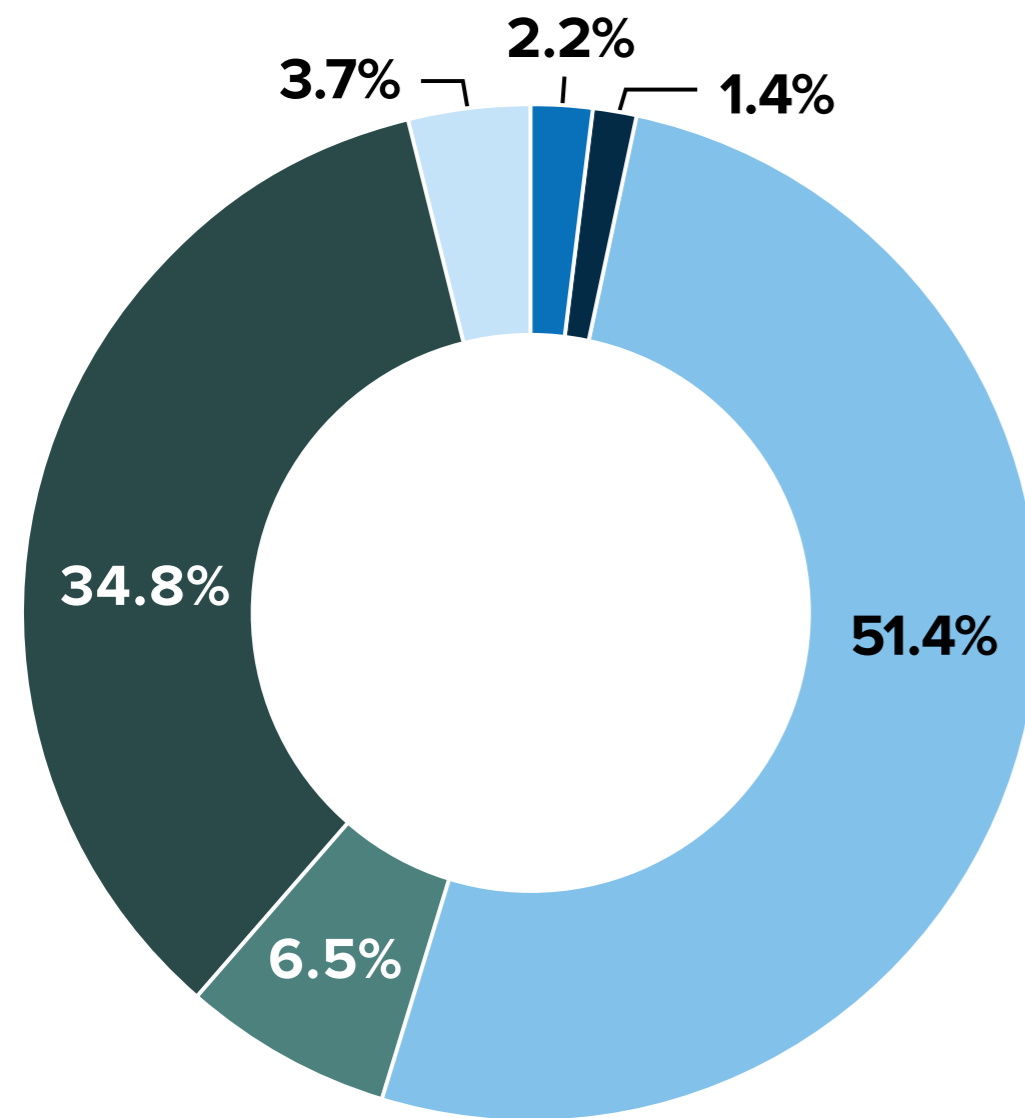
506
bugs

Bug type definitions

Bug Type	User Experience
Corrupted characters	“This doesn’t look right, where are the accent marks?”
Currency and number format	“That date seems wrong for the holiday they’re promoting”
Missing translation	“I’m not sure what this says, there’s no translation”
Other/general	“That photo is offensive, this brand doesn’t understand me”
Poor translation	“I don’t think that’s the right word here”
Truncation & overlap	“The text on this button is cut off”

Bug type breakdown

See the prevalence of each type of bug across the data we analyzed:



- 2.2% Corrupted characters
- 1.4% Currency & numbers
- 51.4% Missing translation
- 6.5% Other/general
- 34.8% Poor translation
- 3.7% Truncation & overlap

Missing translations account for more than half of defects in financial services, banking and fintech apps, with poor translations making up more than a third. Focusing on these two areas can deliver a significant boost to app quality.



Average device coverage: finance vs all industries

In this table, a configuration refers to a unique browser and OS combination (desktop) or device and OS combination (mobile & tablets).

Industry	Test cycles	Average number of desktop configurations tested	Average number of mobile & tablet configurations tested
All	273	11	27.2
Finance	42	4.8	8

Payment testing

The Data Set

A representative sample of Applause's payment testing data for finance providers using digital payment methods.



1,447
test cycles



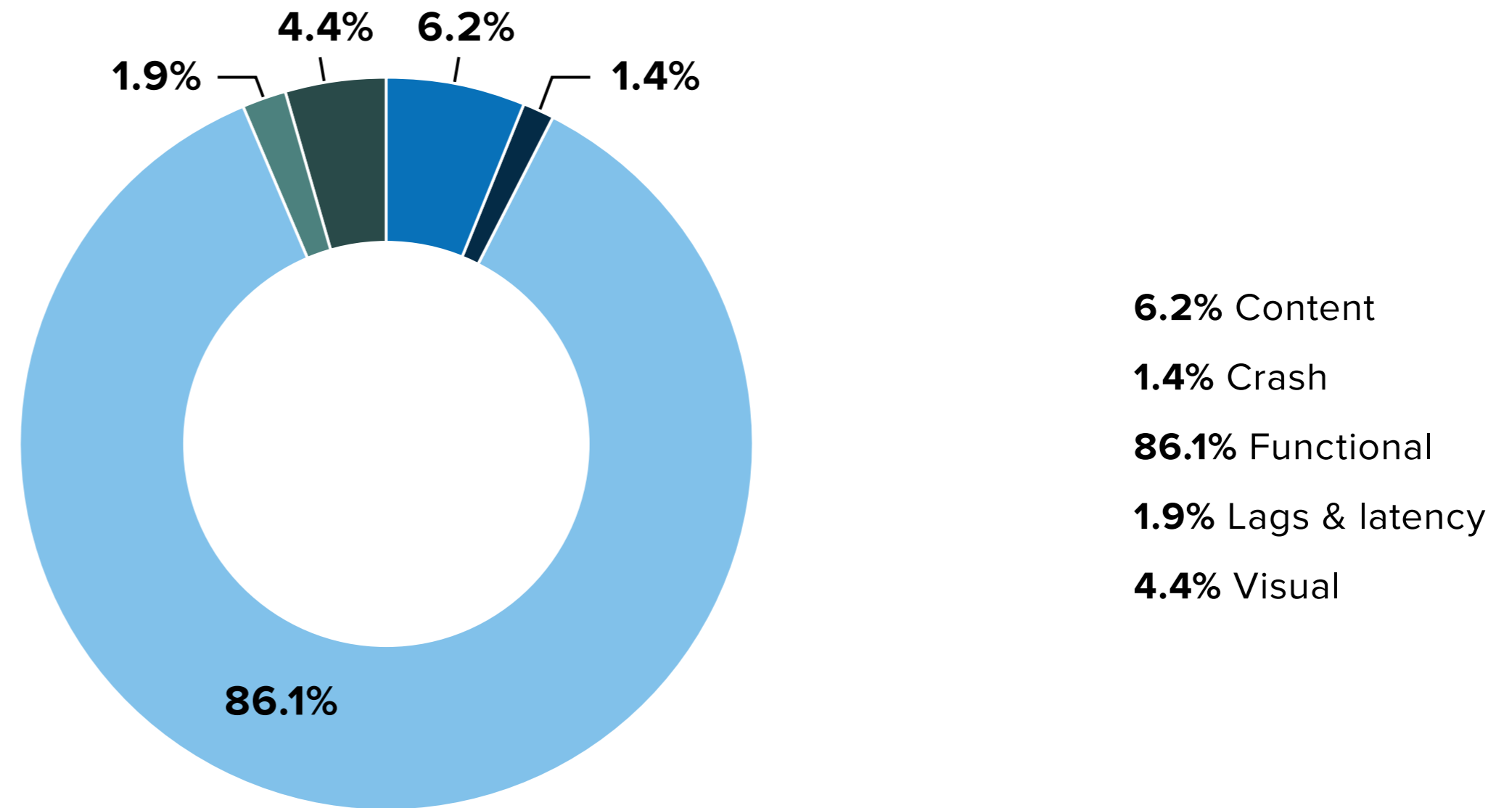
86
countries



2,368
bugs

Bug type breakdown

See the prevalence of each type of bug across the data we analyzed.



The prevalence of each type of payment bug remained remarkably consistent with last year, varying less than 2% from year to year. A whopping 86% of all payment bugs were classified as functional bugs or workflow errors. Without corrective action, transactions will fail, delivering a serious hit to customer confidence – and, ultimately, revenue.



APPLAUSE^o

www.applause.com

The State of Digital Quality 2023