

We are a Supply Chain Automation & Innovation Company.

Disruption is a given.

How will you react? Exceed expectations? Support your employees? Stay competitive? How will you build a supply chain to stand up to the challenges?

While we can't predict disruption, Barcoding, Inc. builds solutions to support your business and face these challenges head-on.

Our ability to connect process, people, and technology is how we build solutions to support organizations around the world. Together, we bring the right minds, the right approach, the right data, and the right innovation to our customers' toughest challenges to help them drive down costs, increase revenue, and improve customer experience.

With extensive subject matter expertise in data capture, tracking, and integration, Barcoding is trusted by some of the best IT and operations teams in the world. We protect our customers' investments in technology with the right combination of management and maintenance services.

Focusing on continuous improvement and long-term relationships, we offer services around upgrades and modernization, strategic assessments, quarterly business reviews, and thoughtful educational programs.





Industry Roles in Barcoding's Community.

Changing roles.

The IT role has always been the largest group that we serve (Figure 1)—since IT is responsible for the *deployment* and support of the hardware we sell. We see operations (2021) and supply chain (2019) coming in second since they are responsible for the *usage* of these solutions.

All that said, Barcoding recommends *cross-collaborative* teams consisting of IT, operations, supply chain, and leadership.

Diverse experiences and viewpoints are vital to defining, deploying, and supporting digital transformation projects that improve processes, leverage emerging technology, and benefit the people and companies involved.

KEY

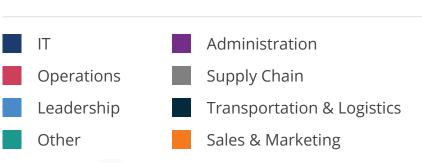
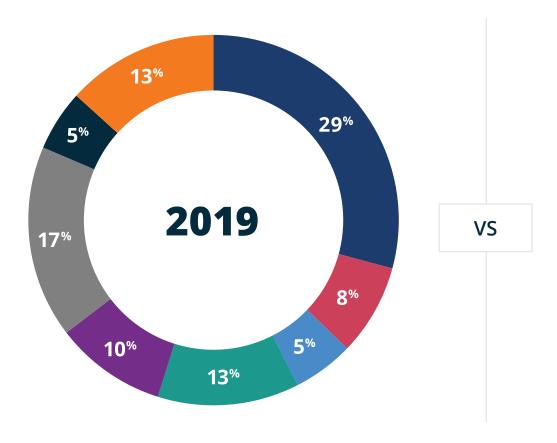
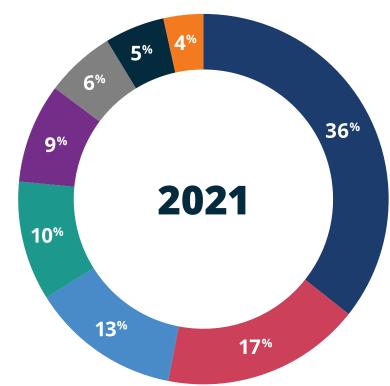


Figure 1: Industry Roles





Early Adopters.

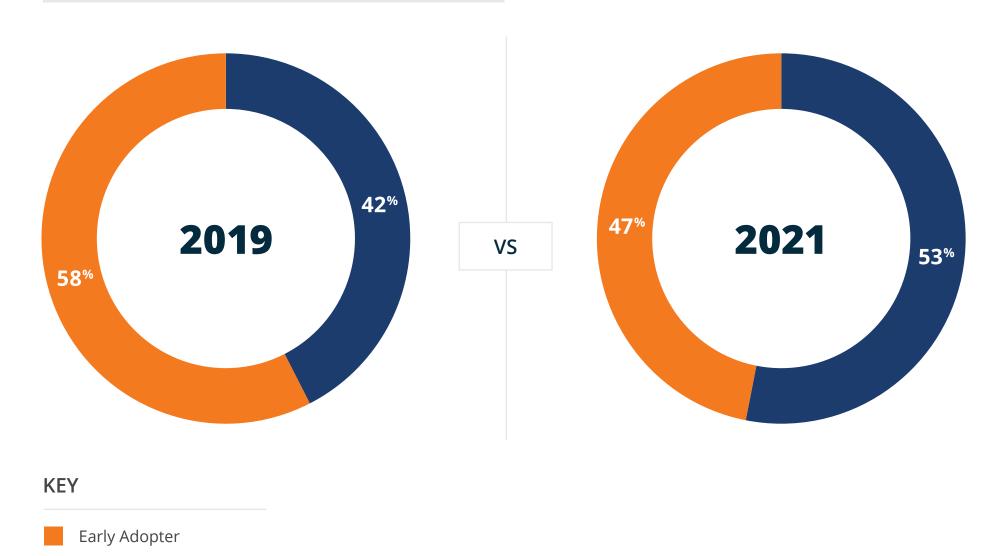
It's interesting to see the change in perception from 2019 to 2021. With the COVID-19 pandemic response sitting between our research study years, we can make a few educated guesses at all the changes.

In 2019, we believe we're seeing a bullish perception—people seeing themselves at the cutting edge (Figure 2). Post pandemic response, we're seeing a more measured response.

While there has been a lot of rapid adoption of new channels and technology, it seems that the perception has changed. Even though more people are putting new technology into action, they perceive themselves to be further behind. We also believe businesses have come out of the pandemic focused on core internal process improvements and customers, leaving little time to dabble in non-essential emerging tech.

Figure 2: Early Adopters of Technology

Not an Early Adopter



Mindset Around Technology.

Two major storylines emerge in our look at 2019 vs. 2021 technology mindsets.

One is that companies have, by-and-large, embraced a more complex ecosystem of mobile tech with multiple operating systems (Figure 3). We see that the migration to Android is mostly over and that IT must now support and manage a complex mix of systems and versions. This is going to require better mobile device management and stronger partners.

Second, we're seeing an embrace of IoT/RFID technology vault to the forefront of people's minds (Figure 4). We believe RFID and IoT will continue to play a major role in supporting ominchannel strategies that roared to life during last year's pandemic response and that are now here to stay (buy-online/pickup in-store or BOPIS; click to collect, curbside, etc.).

KEY

2019

2021

New Option for 2021

Figure 3: Operating System

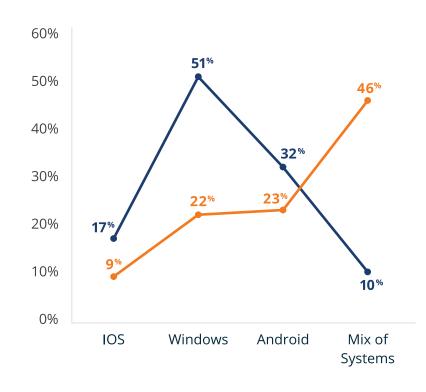
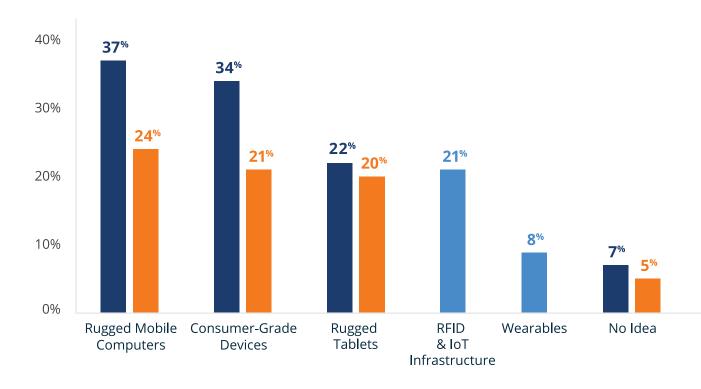


Figure 4: Technology Use



Challenges of Adopting New Technology.

No surprise that our number 1 challenge in both 2019 and 2021 is financial justification (Figure 6).

What is surprising? Many of the new barriers are more related to the business (like change management, stakeholders, time, user training, etc., as seen in Figure 5) than to the technical components (like software migration, choosing hardware, wireless, etc.). This confirms that the IT leaders who will find success in 2021 and 2022 will be those that can work in collaboration with other business units and who can focus on users and adoption.

Adoption of new technology is imperative to staying competitive and meeting digital transformation goals; we hope that companies turn to their partner community to help them overcome these barriers in 2022.

Figure 5: Top 7 Challenges of 2021



Financial Justification, ROI, Budget



Integration to Back-End Systems (ERPs)



Data Security & Compliance Issues



Lack of Time



Change Management

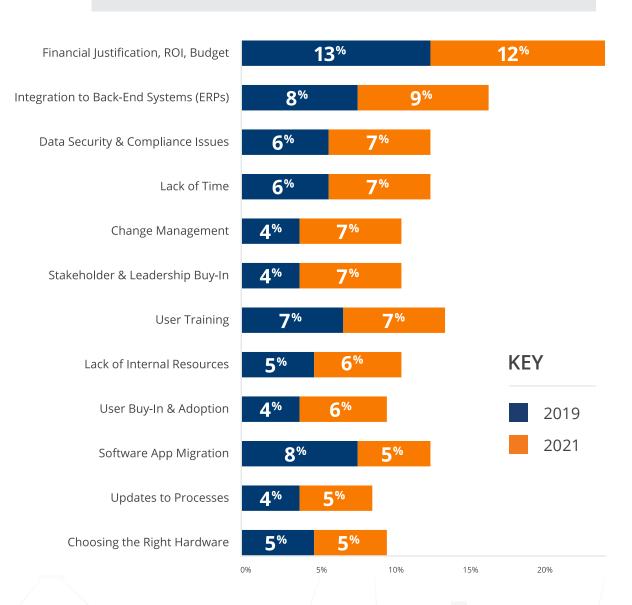


Stakeholder & Leadership Buy-In



User Training

Figure 6: Challenges Between 2019 & 2021



All About the Upgrade.

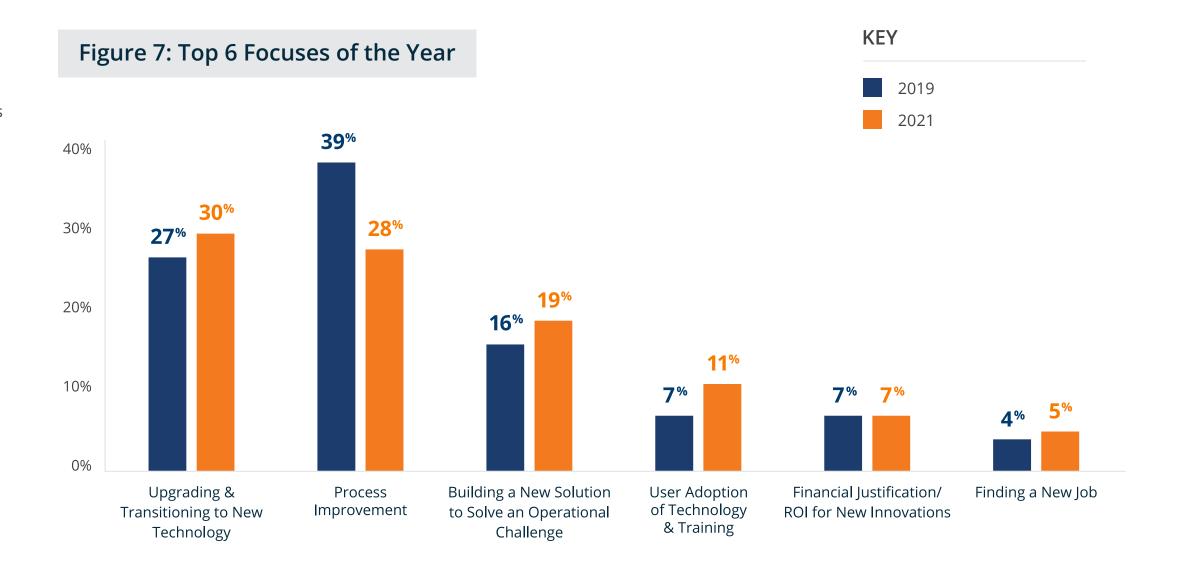
In looking at 2019 vs. 2021, the biggest areas of change are in the transition to new technology (Figure 7), solving operational challenges, and focusing on user adoption. The COVID-19 pandemic response and resulting pressures to stand up new processes overnight have resulted in this push for new technology and operational improvement.

Companies are looking more holistically at digital transformation strategies vs. focusing on rote process improvement.

"We recommend that businesses leverage our technical expertise to deploy and manage enterprise mobility assets so their teams can stay focused on rapid digitization and innovation across the supply chain."

—KERI CORBIN

VP of Client Solutions, Barcoding, Inc.



Technology Transitions.

Based on the increase from 2019 to 2021, we can assume companies are coming into their own after a highly disrupted year (Figure 8).

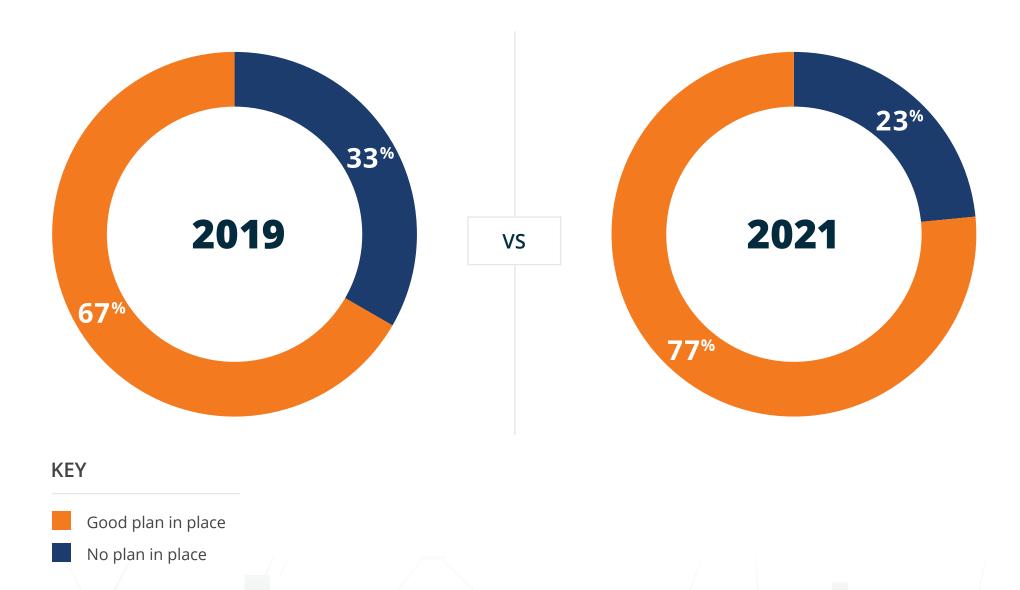
Since the question was specific to having a plan, we can assume that the companies we surveyed are confident in their vision and strategy. Where these teams may need help is executing successfully while growing the business at the same time. Again, this is where an investment in a strategic partner ecosystem will pay off.

"Leverage partners that are experts in enterprise mobility to help guide you. You don't have to do it alone."

—BRIAN HARVEY

Director of Enterprise Engineering, Barcoding, Inc.

Figure 8: Good Plan to Manage Technology Transitions?





Using Resources Wisely.

The survey results are clear—most of our customers believe that outsourcing enterprise mobile device management comes with a price tag that's just too high or that their team is in a better position to handle it (Figure 9).

The decision to manage all mobile computing and scanner assets internally is primarily driven by perceived costs.

At Barcoding, we have found that many companies are not assessing true total costs. Opportunity costs can often be painfully high for IT and Ops teams who must maintain day-to-day operations while meeting challenging digital transformation goals. In trying to do it all, there is the potential for burn-out and missed deadlines.

Barcoding believes that IT can do anything IF IT doesn't have to do everything. This is why we strongly recommend strategic outsourcing for device deployment and support.

Companies should consider "as-a-service" contracts for deployment and support services to bring the financial burden down, much like how laptops are purchased and managed. Today's mobile devices are computers with far more impact and importance than the "bricks"/scanners of old.

Figure 9: Outsouce Support

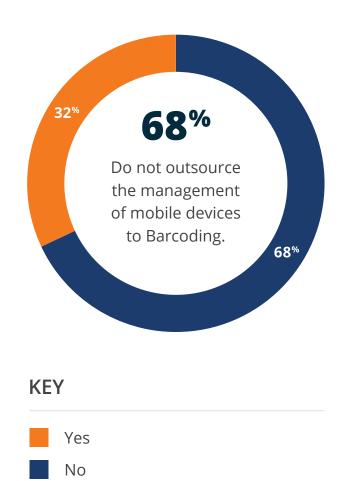
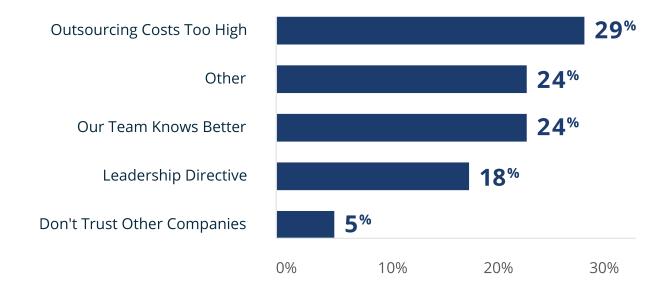


Figure 10: Reasons for Using Internal Resources



Other Category:

- "We have the resources and knowledge as well as know our user needs."
- "Felt we could handle it ourselves."
- "Fast support/response."
- "Still making this decision."
- "Compliance issues with outsourcing."
- "My team can handle, it isn't a big deal. So, less cost, more control."
- "Only a dozen units doing the same function for a decade."
- "Early growth focused on direct customer support."

Becoming More Efficient, Accurate, & Connected.

Improvement is tied to understanding people.

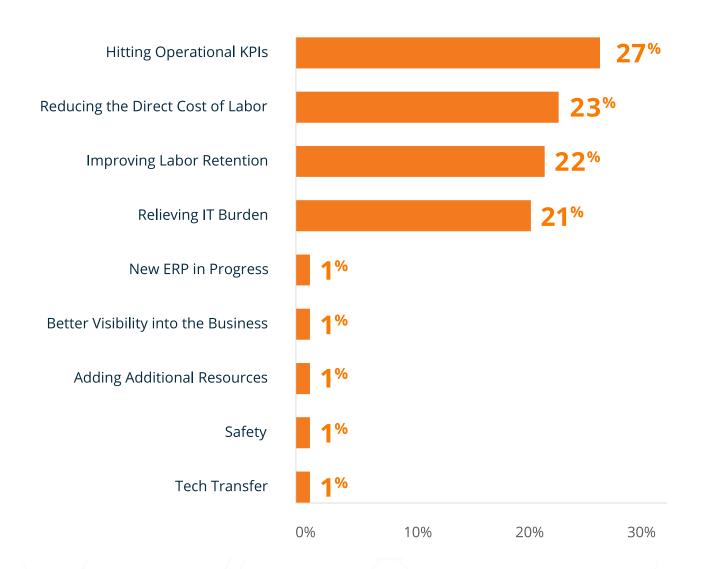
What's on your colleagues' minds as they look ahead? Well, 2 of the top 3 are related to labor (Figure 11), which should be no surprise to anyone who reads the news!

The interesting component is that our respondents are focused on two things that seem on the surface to be contradictory—reducing the direct cost of labor and improving retention. We see these as two sides of the same coin.

Companies need to think of their mobile workforce first. By starting with their employees' experience, companies can craft strategies to both retain top talent and automate processes to reduce reliance on labor where it's unnecessary. Employee experience (efficiency, satisfaction, etc.) directly impacts the customer experience so companies are wise to focus here.

At Barcoding, we recommend hosting a mobile user experience review to find areas for both labor reduction and better labor usage and retention. Ultimately, the focus on labor will positively influence operational KPIs.

Figure 11: Top Focus Areas for Improvement



Mobile User Experience.

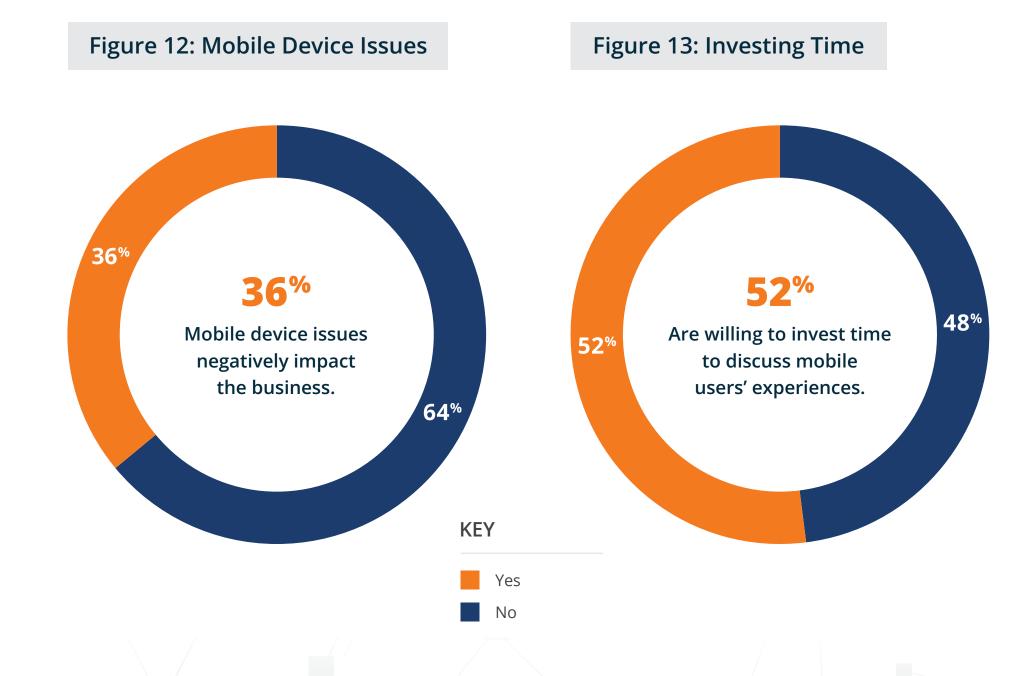
Are your users frustrated?

At Barcoding, we believe that the mobile user experience is at the heart of a good solution. We were surprised to see that only 36% of our respondents felt that mobile device issues were negatively impacting the business (Figure 12).

Within our customer base, we have seen this assumption many times. At the IT and Ops director level, it appears that poor mobile experiences aren't impacting the business; however, we believe this is a faulty assumption. Most companies do not have pathways to capture daily user frustrations with the devices. If you've ever been in a retail store where the associate can't work the mobile device, you know firsthand how associate frustration can spill into impacting the customer experience (and therefore the business).

Interestingly, while a majority of folks didn't see this as a challenge, more than half said they would invest time with Barcoding to do a deep dive into the mobile user experience (Figure 13). Creating a space to listen to users directly is a powerful way to challenge assumptions.

Barcoding is looking forward to hosting these consulting engagements for companies in 2022.



How to Manage IT Assets.

We asked our community to weigh in: As we build and improve our robust online platform to manage your IT assets, service contracts, RMAs, etc., we wanted to know where our customers need the most help (Figure 14).

One of the key places for Barcoding to start is to help our customers get away from spreadsheet tracking (Figure 15). Spreadsheets are not dynamic and can be prone to version-ing errors. Our enterprise platform helps companies manage their IT assets in one place while simplifying the repair process.

Ease of integration is also critical to any IT asset management platform per the survey results. In today's world, open APIs are vital to connect data between systems and to drive efficient decisionmaking.

In addition, users need real-time visibility into the data around their mobile assets, printers, scanners, etc).

Our upgraded IT asset management platform launches in Jan 2022.

Figure 14: Features in a Robust Online Platform

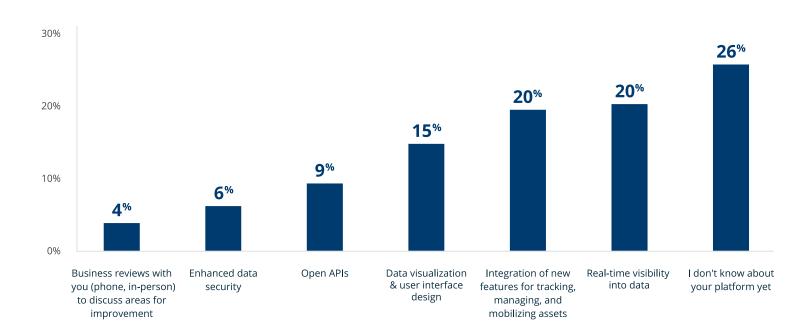


Figure 15: Spreadsheets





Training & User Adoption Tips.

Feedback and advice directly from our customers.

INCLUDE USERS EARLY AND OFTEN

- Listening to employees first makes them feel valued
- Including shop workers in the process helps them understand how to use the tool
- User involvement protects our hardware investment
- Helps create an inclusive process for device implementation

FOCUS ON USER TRAINING

- Without training, users may only realize 10% of the benefit
- We can now push training content through the devices themselves
- We prioritize self-paced training programs
- With training, users use more than 50% of the benefit of the new tech
- It's IT's job to make the tech easy-to-use

DEPLOY MODERN MOBILE COMPUTING PLATFORMS

- Easier to train users remotely
- Easier for IT to administer the devices
- Devices are intuitive and easy-to-use
- Users are more self-sufficient with new devices

"Barcoding works with us to develop innovative solutions, they don't just offer us something off-the-shelf, they help us dream big."





















Barcoding Recommendations.

Choose your partners wisely.

Based on our survey, companies will have to prioritize the users' mobile experiences and find efficient ways to stay secure and up-to-date from a technical point of view.

While it seems self-serving, we truly believe that the best recommendation is to find a trusted partner who can help you continuously improve.



1. Labor (aka people) is the number one driving force in the market.

Prioritize technology strategies that drive retention and productivity first, then look to those that will help you reallocate people to more high-value tasks.



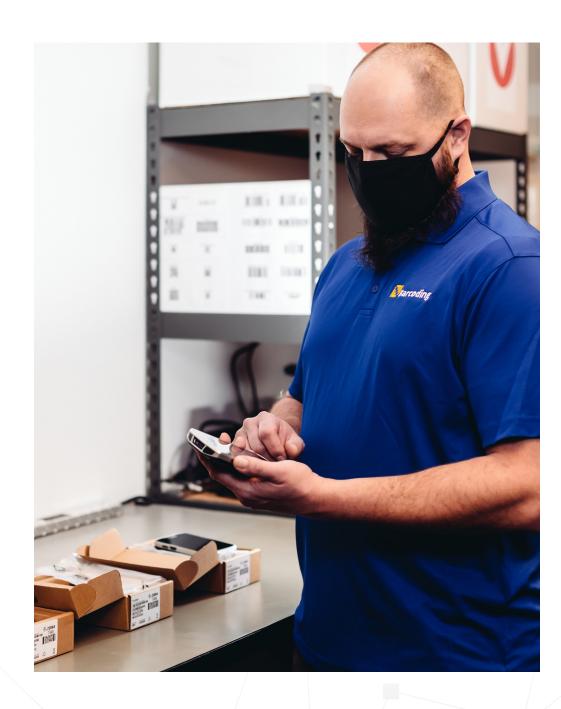
2. Modern scanners are now robust computers capable of fulfilling a lot of business needs.

Review your procedures for new mobile app deployment. This is often a great place to start to initiate more efficient and secure processes.



3. User experience is everything.

Conduct a mobile user experience review (MUXR) by bringing together a cross-collaborative discussion with IT, Ops, leadership, and end-users.



How Barcoding Can Help.

Operational Assessments

Our customers trust us to learn their businesses and workflows.

Our subject matter experts are available for operational assessments and walkthroughs (virtual or in-person) to help you identify places to improve. In addition, our experts can help you strategically plan for a mobile upgrade or an expansion of mobile data capture.

Mobile User Experience Reviews

Employee satisfaction maximizes your investment in technology.

We offer a comprehensive consulting program designed to uncover places for mobile user improvement. Our reviews dive deep to learn where users are getting stuck and how to best support them during their shifts and upgrades.

Solutions Fit to Purpose

Once we have learned about your business, our experts will use that information to choose the exact technology to fit your needs. Because we know every configuration, cable, setting, and "gotcha" that comes with the devices, our experts are trusted by some of the world's largest companies.

Because we know that technology is only as good as it's used, our GoLive Services[™] and StayLive Services[™] ensure that your mobile workforce stays up and running for your customers.

