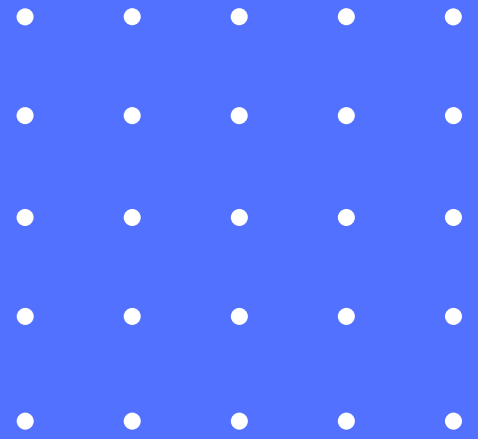




the
taktiful
sensorial
marketing
agency



Digital Embellishment Trends in a Covid World

January

2022

Table of Contents

STENZEL CON

01. A Message from Taktiful Management
02. The Study Explained
03. The Digital Embellishment Market Today
05. Market Accelerators for Digital Embellishment
08. Key Trends
09. What's Hot: Positive Applications and Finishes Trends
10. What's Not: Negative Applications and Finishes Trends
11. Covid Impact on Digital Embellishment
12. Revenue Implications
13. Supply Chain Obstacles
14. Digital Embellishment Production Volume Trends
16. Sales Obstacles During Covid
17. How Manufacturers Can Help Users Be Successful
18. User Confidence in Future Outlook:
General Business vs. Digital Embellishment Business
20. Summary

MESSAGE FROM TAKTIFUL MANAGEMENT

As a team that has spent the past 20 years in the thick of the burgeoning Digital Embellishment industry, it has been quite a satisfying adventure to watch this market grow from its infancy to where we are seeing it today in market adoption.

Luckily, we have also had the opportunity to work in pretty much every region on the international stage, and we have studied with fascination how each different country varied in its sales and marketing strategies when going to market.

While at MGI Digital Technology, a big part of what we always felt would be a worthwhile investment of our time and energy was developing tools and specific sales and marketing training for our digital embellishment users. The idea was simple; we wanted our clients to be successful with their new investment in digital embellishment technologies. Since they were helping us create a new market from scratch, the better they knew how to sell it and sell it at solid value, the faster the market would be educated, and the higher the demand would become.

That's a big part of why we've created this new company, The Taktiful Sensorial Marketing Agency. Taktiful is a marketing agency that works with brands, other agencies, manufacturers, and printers to use sensorial, and specifically haptic (touchable) marketing to generate sales.

It's interesting to see how COVID has mixed the bag up a little bit. Let's see what we've discovered and where we see the market trending during and post-pandemic.



Kevin Abergel, President
Taktiful



Yoshi Ishii, President
Taktiful Asia Pacific

THE STUDY

NON O T C U D D O R I N T

Our digital embellishment study was conducted in November 2021. The participants revolved around companies using digital embellishment in three different user categories: Packaging printers, Commercial printers, and Trade finishers.

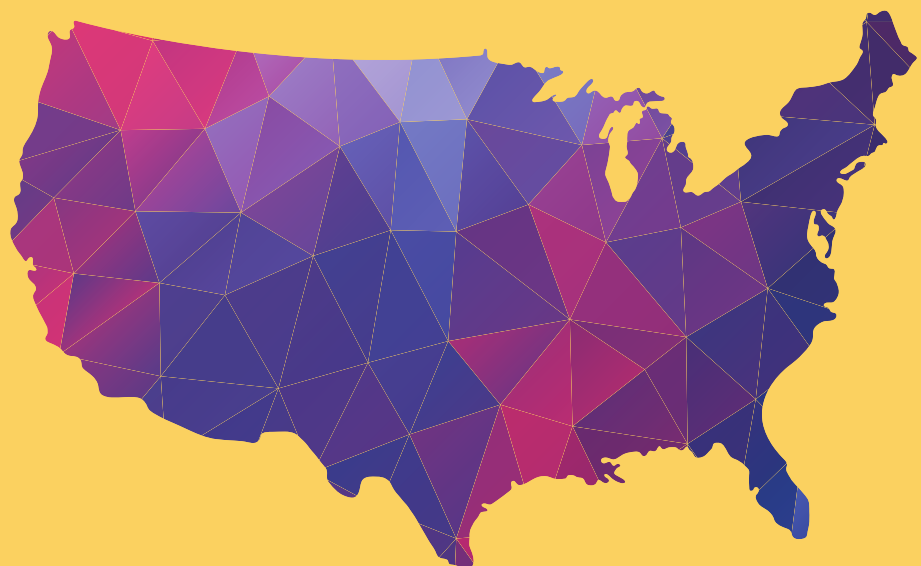
The respondents were all at the president or CEO level. We wanted to get their executive standpoint on how they perceived the market evolving and what kinds of trends they were starting to identify as business owners.

This particular study data comes from the Americas. Taktiful is currently putting together a more extensive study that will span the globe to identify international trends.

The data collected was a mix between online questionnaires as well as live interviews.

As digital embellishment can mean many different things, for the purposes of this study, we interviewed users solely on the Inkjet Based Digital Embellishment, who would offer the following types of digital embellishment finishes:

- Flat Spot UV
- Tactile Raised Sport UV
- Raised Digital Foil
- Cast and Cure Digital Foil



THE MARKET

We live in a new world today, and COVID has impacted everybody in the print industry. As far as print embellishment was concerned, we saw a unique set of circumstances that negatively impacted some applications.

Surprisingly, we observed an unexpected acceleration in other applications and overall market adoption due to several factors, including COVID.

Digital Embellishments can mean several things, so what is the true definition, and what types of decorating and embellishments are possible through digital processes?

The prevailing definition of digital embellishment is the process by which a physical, visual, or tactile effect is added to a printed piece of matter to enhance it using technology that does not require any tooling, thus allowing for variability in data and significant cost-effectiveness in short runs.

We see many different types of digital embellishment technologies being used, and the utilization of these various techniques depends on the different budgets, desired effects, technical limitations, and environmental considerations of the printers, the brands, and the agencies who require them.

One of the oldest and most well-known types of digital embellishment is "Sleeking," whereas we remelt black toner from a digital print engine through a laminator. Instead of a roll of laminate, we alternatively load a roll of foil.

The black toner heats up, melts, and sticks to the foil and whatever you printed in black is now metalized. Many different effects can be reached using this technology, such as metallics, simulated Spot UV, and more. Still, to have this foil part of an overall cmyk+ design requires the use of multiple passes through the digital press, very high registration precision, and barriers such as lamination between steps for it to work.

THE MARKET

It should also be said that the overall effect of Sleeking-based output is generally going to be "flat" and not dimensionally raised. While it is not a necessarily efficient process and requires time to produce and print clicks for each pass, it offers a low cost of entry and is perfect for people who want to test the waters of embellishment.

Then, making its entrance a little over a decade ago are the inkjet-based systems. The inkjet-based systems first started by jetting a clear ink onto printed sheets to simulate Spot UV. A few years later, there was the idea that tactile effects could also be achieved by adding more layers or slowing the process down, so tactile embellishment was born. Finally, a few years later, the idea was born that the fluid itself could act as an adhesive agent for foil products by formulating a specific fluid in a very specific way. So the premise was, with one piece of technology, having the ability to do a flat spot UV, a raised clear tactile effect, and a raised foil effect all in one pass with a minimum run of one.

Mass-level democratization had begun thanks to the many new players, new formats, new platforms, and diverse budget levels.

Then we saw the integration of special effects in digital printing presses, which began to flaunt fluorescent colors, metallics, and dimensionality in line with their digital CMYK+ printing processes. This made it easy to produce spectacular prints that could stand out from the regular offerings.

Today, we are witnessing a renaissance in the print enhancement market segment thanks to the democratization of easy-to-use digital embellishment technologies and the understanding that "informational" print is migrating online. In contrast, "impactful" print is the end game in most brands' print budgets today. What has been especially interesting to watch has been how digital print embellishment has also helped increase volumes on traditional analog embellishment technologies by reigniting interest in these new finishes.

ACCELERATORS FOR DIGITAL EMBELLISHMENT

Supply Chain

We have seen a recent acceleration in digital embellishment market adoption, and it's crucial to realize why. A couple of critical things that we're seeing is an increase in shorter runs because the stress in the supply chain has made the production of goods more difficult to produce, so brands have had to scale down their production while waiting for their supply chains to pick back up.

It isn't very easy to do a run of 100,000 or 500,000 at the moment. Many manufacturers will opt for shorter runs as the raw materials slowly come in and their products are manufactured. Because of COVID, the supply chain squeeze is helping push jobs towards on-demand digital print production processes as brands experience difficulties producing goods on the aggregate.

No product, perhaps asides from the semiconductor industry, is as difficult to source as paper substrates are at the moment. Most companies don't have enough paper and board in stock to satisfy demand, and the printers that do hold all the cards. The paper scarcity has forced companies to print and finish shorter runs, digitally, due to the limited paper in stock.



Brand Education

We're also seeing brands beginning to understand the impact of how digital print and finishing technologies could help them meet their sustainability goals.

While the print industry does plant more trees than it cuts down, more brands must realize what they stand to gain if they go to a digital print production process.

In the past, brands have generally assumed a digital print process meant it would be too expensive. Today, many still think this way, but more and more understand that reducing the amount of overprints and waste can save them money and meet their sustainability goals.

A critical study came out this year from the world advertising research center. They proved that packaging was the second most effective channel when it came to media, after videos.

As impressive as that statistic is, only five percent of the surveyed brands currently consider their packaging as a growth enabler.

This means 95% of the brands represented in the study are unaware or resistant to embrace digital because they still believe print that's produced digitally or finished digitally is too expensive or don't fully understand the impact. Printers have a massive opportunity to educate their customers on the power of "fantastic" packaging.

If we look at the next significant generation who will be holding the purchasing power soon, Generation Z, 53% surveyed said they want the brands they buy from to offer them a way to personalize or customize products to them.

This is, again, an excellent opportunity for digital.



Increase In Players

We've also seen an increase in market players from the manufacturing side. There are significantly more players in the digital embellishment space, contributing to more units being in the field. MGI, Scodix, Duplo, Kurz, Jetfx, Steinemann, and half a dozen more have begun pushing the market up the adoption curve.

The more players are in the game, and the more overall units there are in the field.

Manufacturers realize that there's profit in this market and want to make machines that meet market expectations.

The next logical step happens when the people who invest in this equipment begin individually and collectively educating the designers, the agencies, the print buyers, and the brands at the local or regional level.

Reorder Rates

Additionally, we see high levels of embellished reorder rates, meaning that brands who try digital embellishment once, and the reaction is strong enough that often times when they go back to reorder, the marketing department specify specific embellishments.

The "just try it once and then you're hooked" model works so well, many digital embellishment users report doing the first job for a brand at or below cost. They do this so that the brands can experience the reactions for themselves, knowing they will likely follow up with a digitally embellished reorder on their next project.

A Renewed Interest in "Sexy Print"

Finally, there is a renewed desire to make something memorable when it comes to print. In terms of print, if it's categorized as an informational-based print, it can be in many cases transferred to an online distribution source as there is no genuine desire to print yesterday's news.

Today, we see that if something is going to merit being printed, there is a desire to spend a little more to make it unique as it needs to get somebody's attention, provided it is environmentally sustainable.

Whether done via analog or digital processes, embellishment is making a big comeback as of recently.

KEY TRENDS

When asked to list out some of the critical impact trends owners were identifying, users responded in similar variations of the themes below:

- Business Meeting Conditions Difficulties
 - Business Closed During Lockdowns
- Brand Owners Uncertainty in Getting Products to Market due to Supply Chain Issues
- Shift To Online Only Sales and Now Then Back Into Retail Environments
- Steady Reordering Rate for Digital Embellishment
- Printing Budgets Shrunk for 2021 Due to Panic Planning in 2020
- Segment Specific Growth
 - Packaging, Trading Cards, Pharma, Books, Games
- Segment Specific Decline
 - Invitations, Wedding, Event, Business Cards

WHAT'S HOT

APPLICATIONS

The following applications were among the hottest digital embellishment trends during Covid:

- Book Covers
- Pharmaceuticals
- Braille
- Gaming
- Calendars
- Folding carton packaging
- Direct mail
- Sales/Influencer Kits
- Postcards
- Real Estate

Some of the hottest and most positive applications that we're seeing have been on book covers, pharmaceuticals, specifically Cannabis packaging, and braille.

Users are also reporting a big push in real estate as people as populations are moving from big cities to smaller cities and spending considerable money on marketing the luxury housing market, explaining the segment specific growth in these markets.

FINISHES

As far as finishing effects are concerned, we're seeing 3D tactile varnish as a resounding winner, as well as a significant increase in multiple pass 3d varnish, meaning two or three passes to create extreme 3d or braille. In terms of foil colors, we're seeing a high demand for gold and holographic foils.

S
D
N
E
R
T
E
S
O
D

WHAT'S NOT APPLICATIONS

The negative trends experienced by digital embellishment users have been, predictably, in the event and invitations-focused segments. The wedding industry has taken an enormous hit, with special events invitations and fundraising also experiencing declines.

A traditional staple of the digital embellishment business, the business card, has also experienced a significant decline. People aren't meeting face to face to trade business cards as they may have done in the past.

- Retail Signage
- Graduation Cards
- Wedding Related Industry
- Special Event Invitations
- Fundraising / Non Profit
- Business Cards

FINISHES

Based on user polling data, there has been a significant drop in the following effects categories:

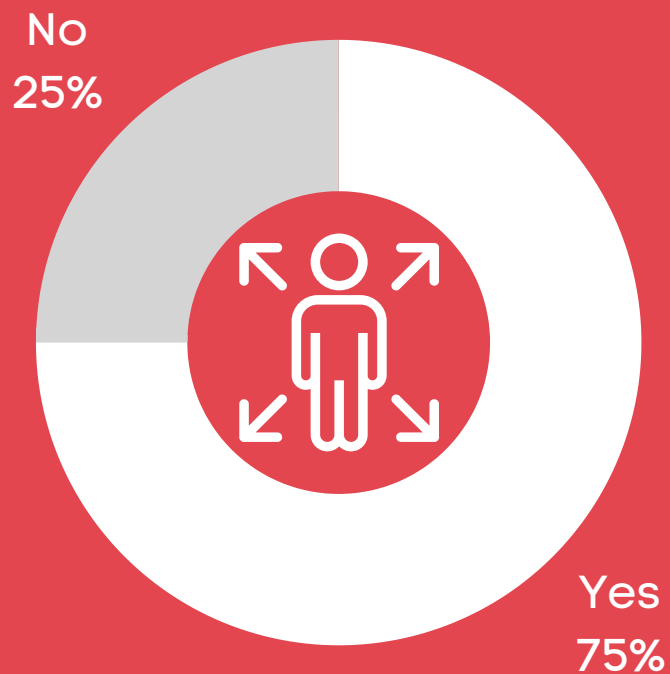
- Flat (2D) spot UV
- Flood UV
- Colored and pigmented foils
- Variable data finishing

COVID'S EFFECT ON DIGITAL EMBELLISHMENT

We interviewed a multitude of digital embellishment users in North America and asked, "have you experienced any impact on your digital embellishment since COVID 19? While 75% said yes, astoundingly 25% said that they didn't feel any effect whatsoever from covid on their digital embellishment work.

When we investigated, we discovered that all those companies in the "no impact" category were in packaging, and specifically in the cannabis pharmaceutical packaging, which was a segment that saw immense growth during the COVID pandemic.

Was Covid Impact Felt?

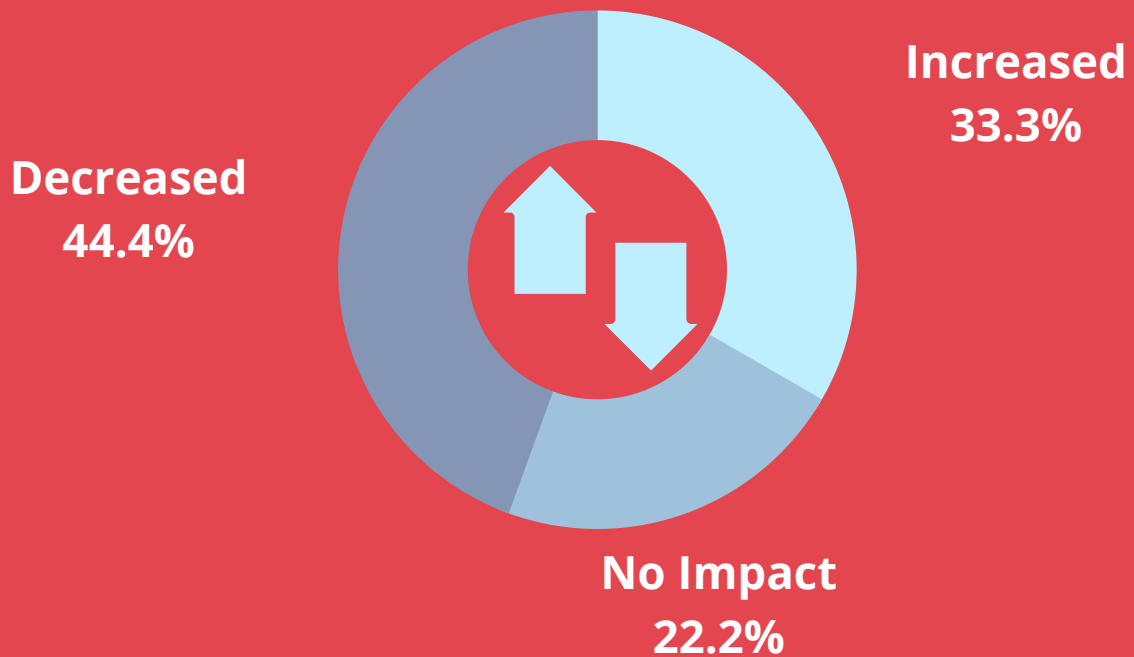


REVENUE IMPLICATIONS

We then asked them what the impact that they felt from covid on their digital embellishment business was, and amazingly 33% said that their revenues increased, and 44% said decreased, while 22% said they did not see much impact.

Conventional wisdom would have guessed that everybody would see a significant decrease, but in this case, less than half saw a decline while one-third saw an increase by riding the emerging trends.

How Was Revenue Impacted?

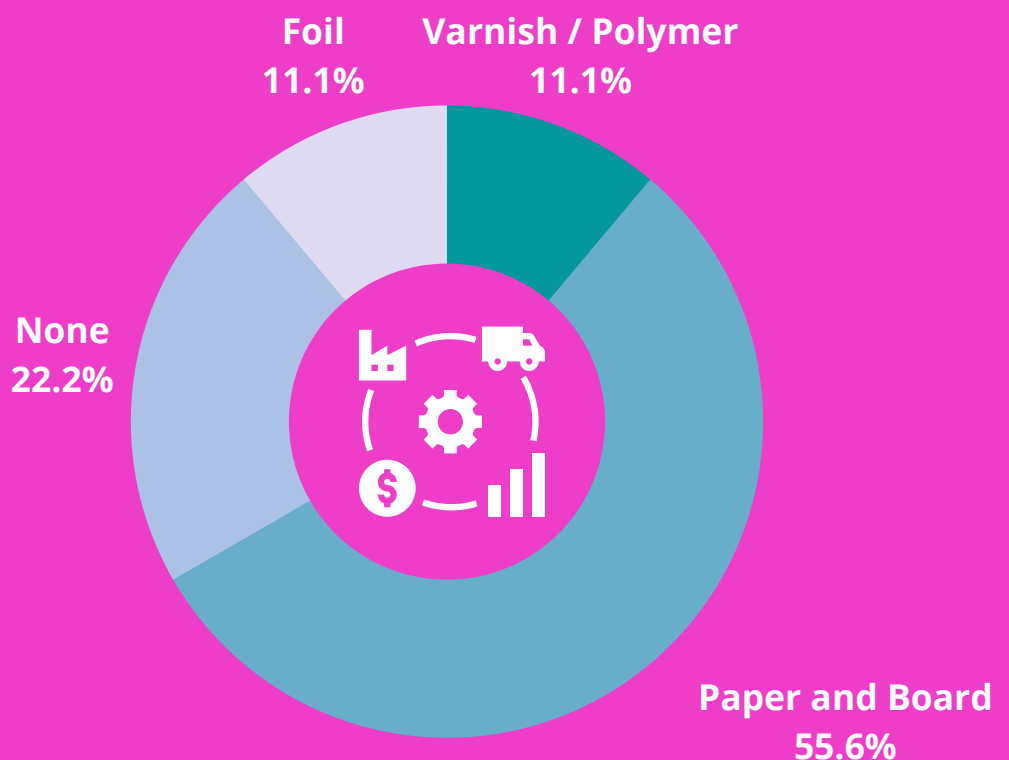


SUPPLY CHAIN

When asked what their most significant supply chain issues were when it comes to digital embellishment, most of the respondents indicated that it revolved around paper and board for the most part. Foil was difficult to source for 11% of the respondents, and 11% found varnish and polymer sourcing their biggest challenge.

Incredibly, 22% of respondents stated that they had no supply chain issues. Those 22% who made their moves before the supply chain crisis took off and purchased significant levels of consumables, substrates, varnish, and ink are gaining significant regional market share due to their supply advantage.

Supply Chain Issues

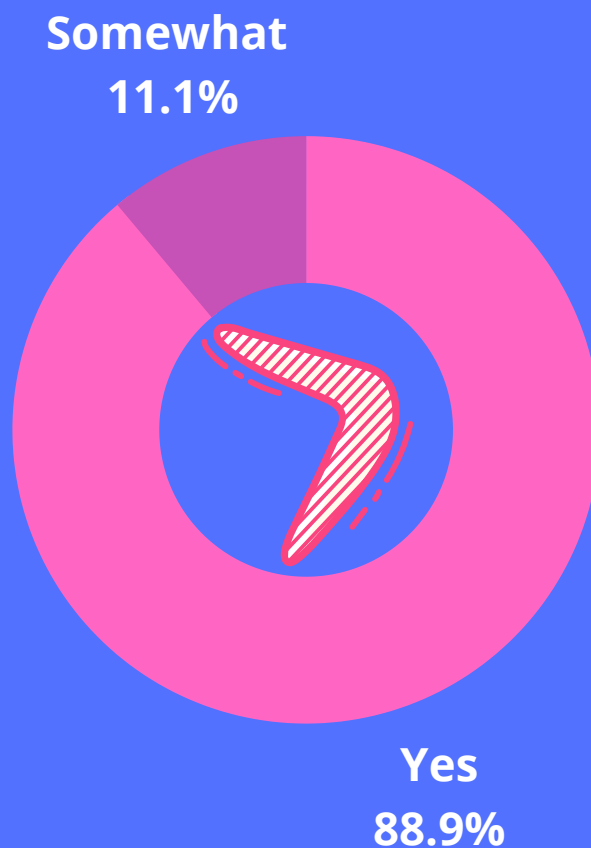


PRODUCTION VOLUME TRENDS

Digital Embellishment Volumes Make a Return

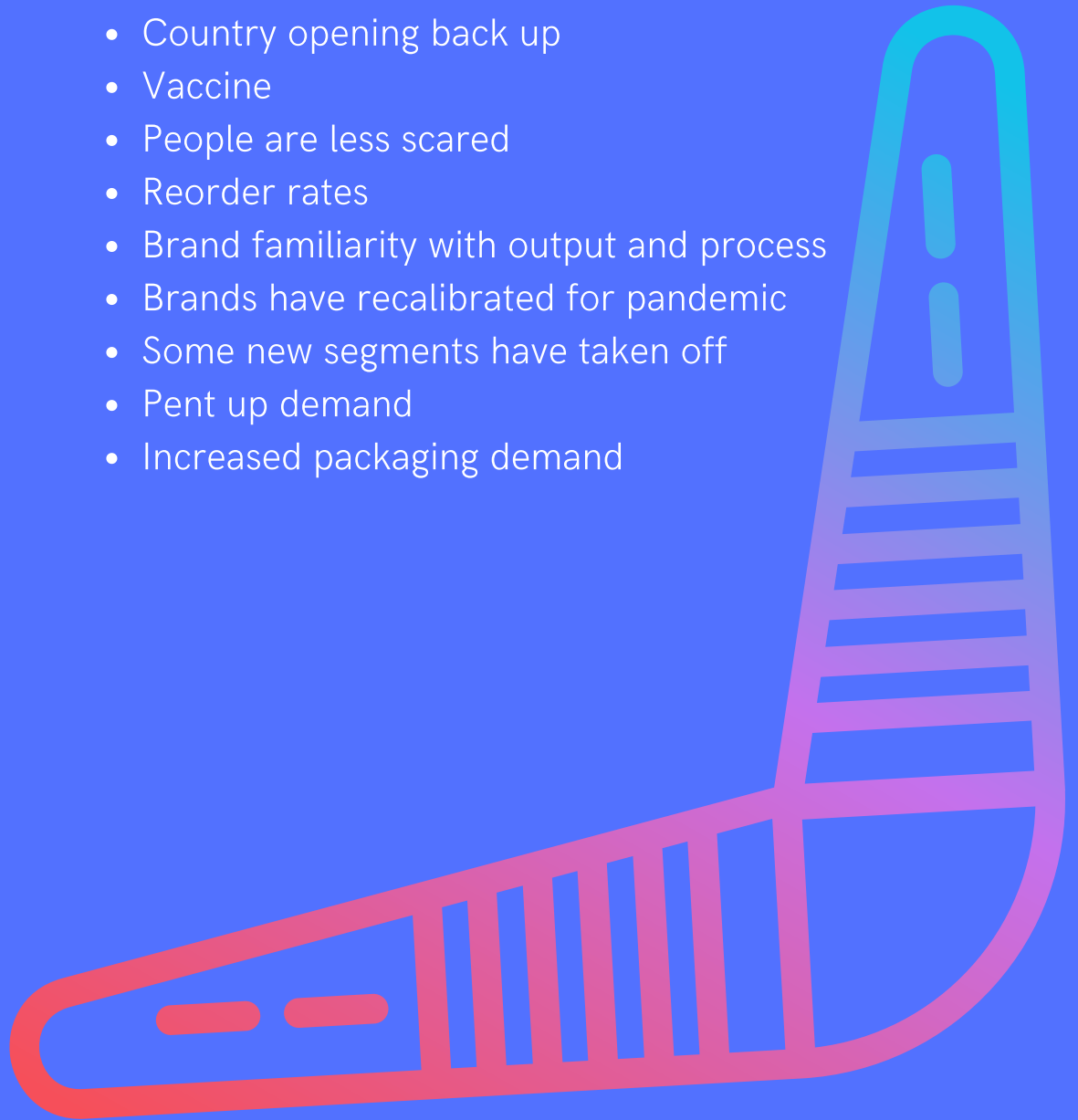
When we asked users if their digital embellishment volumes were starting to come back, 88.9% of digital embellishment users said "Yes," with a majority coming returning since the summer of 2021. None of the respondents mentioned that their volumes had not yet begun to return. It was either "Yes" or "somewhat returned," so a generally positive outlook on volumes returning on the aggregate.

Are Digital Embellishment Volumes Returning to Pre Covid Levels?



KEY REASONS GIVEN FOR RETURN IN VOLUMES

- Country opening back up
- Vaccine
- People are less scared
- Reorder rates
- Brand familiarity with output and process
- Brands have recalibrated for pandemic
- Some new segments have taken off
- Pent up demand
- Increased packaging demand

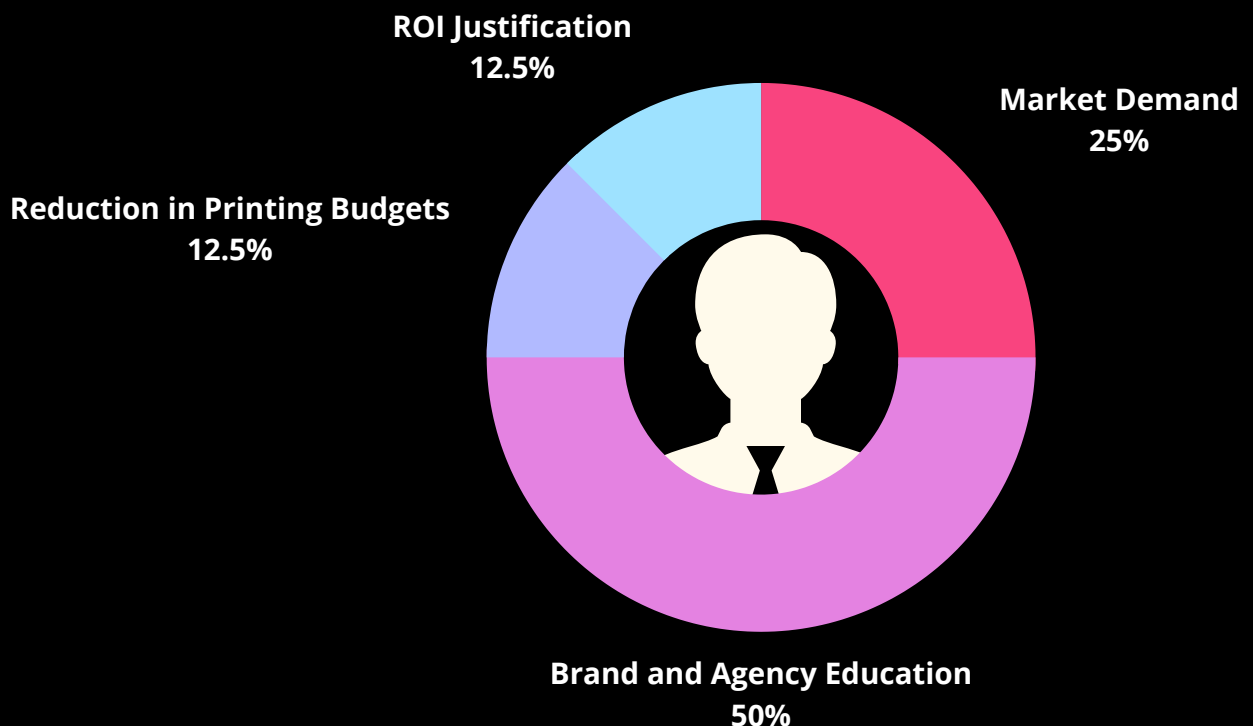


SALES OBSTACLES

As far as obstacles to sales are concerned, users identified "client education," as they feel this is still much work left to do to educate their customers, the print buyers, and the designers. Whether it's educating brands and agencies, creating market demand, or understanding how to show the market ROI justification, all obstacle themes are correlated to Brand and Agency Education.

Surprisingly enough, the smallest sales obstacle that users reported was the reduction in printing budgets.

Main Sales Obstacles for Digital Embellishment



HOW CAN MANUFACTURERS HELP?

Finally, when asked how equipment manufacturers could help them most, a majority of 77.8% said brand and agency education is where they needed help.

Consumable discounts were mentioned, along with better technical training, but overall, the respondents were very clear about their need for help.

How Can Equipment Manufacturers Help?

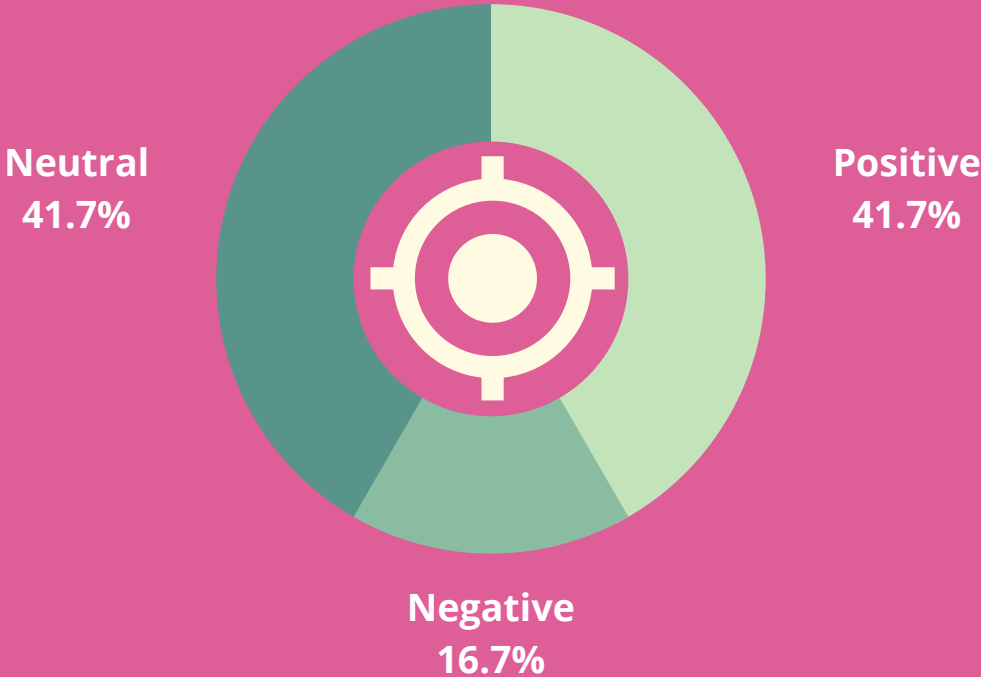


FUTURE OUTLOOK: GENERAL BUSINESS

If we look at the general outlook of printers surveyed on their **general business operation**, only about 41% of respondents had a positive outlook, 41% were neutral, and then 16% negative.

OUTLOOK

Outlook on General Business



Only 4 out of 10 Users Reported a POSITIVE Outlook on Their OVERALL GENERAL Business



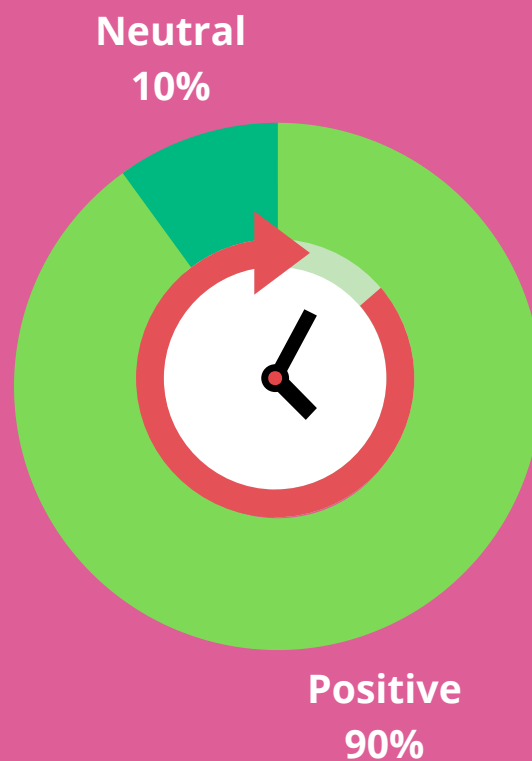
FUTURE OUTLOOK: DIGITAL EMBELLISHMENT

However, when we asked the same question regarding their outlook on their Digital Embellishment business, 90% of the respondents said they had a positive outlook and 10% a neutral one, with none saying they had a negative view.

In other words, users reported a positive outlook trend in their digital embellishment operations at almost twice the rate of their overall business.

The users are very optimistic about what they see in terms of the future growth for digital embellishment aspects of their business.

Outlook on Digital Embellishment



9 out of 10 Users Reported a POSITIVE Outlook on Their DIGITAL EMBELLISHMENT Business



OUTLOOK

SUMMARY

Some of the key takeaways from the digital embellishment during covid study are as follows:

Those who have invested in digital embellishment technologies before the pandemic are taking full advantage of the upselling opportunities and have a strong positive outlook on this aspect of their business.

While some traditional staples of digital embellishment work have taken a hit with COVID, many new applications are being developed in exciting new industry segments, driving this market in new directions.

Some of the negatively impacted applications will come back once the world opens back up again, notably the wedding and events invitation applications as well as the business cards business.

The application sets may be shifting, but as screen fatigue continues to wear consumers down and marketers struggle to find innovative ways to get their messages in front of potential clients, impactful embellished print is poised to make a strong run.

Brands and consumers are getting a better handle on how to handle the crisis, and as the world adapts to the new situation the printing budgets for 2022 -2023 are being planned in a more serene state of mind compared to 2020 for 2021.

Market education, from designers, print buyers, agencies and brands, remain one of the top challenges to sales in the marketplace. As users, manufacturers, and agencies continue to expose digitally embellished output to brands and the general public, demand will grow.

CONCLUSION



the
taktiful
sensorial
marketing
agency

CONTACT

taktiful

6300 N Wickham RD
Suite 130 #676
Melbourne, FL 32937
USA

www.taktiful.com
info@taktiful.com

+1.321.574.2296

Copyrights

Taktiful retains all copyrights. The reproduction of any materials is prohibited without written consent from Taktiful.

Confidentiality

Taktiful will use its best efforts to ensure that any confidential information obtained during the course of the proposed study is not, unless agreed otherwise in advance, disclosed to any third party without the prior written permission. Taktiful retains the right to re-use any non-proprietary information as part of its ongoing market analysis.

About Taktiful

Taktiful is a Marketing Consulting agency that specializes in sensorial marketing, specifically working with Printers, OEM's and Brands on how to leverage Digital Embellishment technologies for maximum impact and effect.

