



DISCOVERING THE DIGITAL NEEDS OF BALTIMORE'S SOCIAL ENTREPRENEURS

AUTHORS

Bethany Janka

Research Assistant

Benjamin Pittman

Research Assistant

Greg Walsh

Bob "PXG" Parsons Professor in Digital Communications, Commerce, and Culture
Director, Center for Digital Communications, Commerce, and Culture

CONTENTS

| | |
|---|----|
| Introduction..... | 3 |
| Background Information | 4 |
| Research Study Methods | 6 |
| Findings | 12 |
| Recommendations | 32 |
| References | 35 |
| Appendix: Technologies Used By Participants | 36 |

ACKNOWLEDGEMENTS

This report was made possible by the Center for Digital Communication, Commerce and Culture (CD3C), which is funded by Robert R. Parsons, B.S. '75, D.H.L. '08 and The Bob & Renee Parsons Foundation.

INTRODUCTION

Social enterprises play a vital role in addressing the multifaceted challenges that Baltimore City, Maryland, and its citizens face.

Baltimore, like many urban areas, grapples with issues such as poverty, unemployment, economic inequality, violence, food insecurity, inadequate government intervention, and mass incarceration. Social enterprises have emerged as a transformative force, addressing these challenges through innovative social interventions and supports. The effective use of technology plays an essential role in entrepreneurial success, and to enhance the effectiveness of Baltimore's social enterprises, it is essential to examine the specific technology needs of these organizations.





BACKGROUND INFORMATION

This literature review aims to synthesize existing research on social enterprises, aligning them with the unique social characteristics of Baltimore City. The insights gleaned will inform the creation of technology training and support to empower these enterprises.

DEFINING “SOCIAL ENTERPRISE”

Social enterprises are unique organizations that combine business principles with a strong commitment to social or environmental impact. These enterprises operate with a mission to benefit the public, encompassing both organizations and individuals. While the precise definition of "social enterprise" remains a matter of debate, as it spans organizations supported by donations and grant funding, as well as those demonstrating measurable social value, social enterprises distinguish themselves from mainstream businesses primarily through their "organization's purpose for being" (Fitzhugh & Stevenson; 2015).

Social enterprises are founded on the premise that their primary objective is to achieve their "social mission," with the "[trading of] goods and services" serving as a means to this end (Fitzhugh & Stevenson; 2015). **While some businesses may incorporate social missions, true social enterprises prioritize these missions over profit maximization and are not driven solely by financial profit.**

BENEFITS AND CHALLENGES OF SOCIAL ENTERPRISES

Understanding the effectiveness of social enterprises in urban communities like Baltimore City necessitates a comprehensive assessment of their benefits, challenges, and impact. This evaluation serves to justify the existence of social enterprises and the investments made in them.

Benefits of Social Enterprises

Social enterprises, with their specialized focus and social missions, prove to be highly effective agents in addressing societal issues. One common objection to the establishment of social enterprises relates to perceived government responsibilities. However, studies such as "The Failure to Sustain Police-Youth Programmes in Baltimore City" (Caldas et al., 2018) have revealed that public resources can be insufficient for critical programs. In such cases, establishing non-profit organizations that fundraise specifically for these programs can be a viable solution. Social enterprises can often achieve goals more effectively than government agencies, as they are not bound by the same bureaucratic processes and can maintain stability in the face of changing leadership or budget priorities (Caldas et al., 2018).

Another study focused on childhood obesity prevention among low-income families in Baltimore City (Ellison, 2018) highlighted the effectiveness of a childhood-obesity prevention program in combination with government assistance programs like SNAP (Supplemental Nutrition Assistance Program). This combination adequately addressed the heightened need for obesity mitigation interventions. It is important to note that legal intervention, in collaboration with social enterprises, can be essential for successful implementation.





RESEARCH STUDY METHODS

This study was conducted by the University of Baltimore's Center for Digital Communication, Commerce and Culture (CD3C), in partnership with Innovation Works Baltimore (IW). The goal of this study was to uncover the specific digital and technological needs of social entrepreneurs in Baltimore, Maryland to support the design of customized training and technology support services.

Researchers aimed to identify trends in the types of technology used by Baltimore's social entrepreneurs, pinpoint their primary challenges in utilizing technology, and ascertain the kind of support they require to enhance their technological capabilities.

Research questions included:

- What types of technology are Baltimore's social entrepreneurs using?
- What technological needs do these social entrepreneurs have?
- What are the biggest challenges facing these social entrepreneurs when it comes to technology?
- What kind of technological support and/or training is needed?

This report presents insights derived from interviews conducted with 20 local social entrepreneurs over a four-month period in 2023.

RECRUITMENT

Prior to the study, Institutional Review Board (IRB) approval was obtained, and all participants were informed about the study. Participants were recruited from IW's network of Baltimore social entrepreneurs, some of whom had participated in IW's social entrepreneurship development programs. Participants volunteered their time and did not receive compensation for their participation.

INTERVIEWS

Researchers conducted individual interviews with 20 participants remotely via video or audio calls, each lasting approximately 30-45 minutes. The interviews centered on participants' social enterprises, guided by a pre-determined script to ensure consistency. The script included a range of questions designed to uncover insights into the information needs of social entrepreneurs and included a mix of open-ended questions and those utilizing a Likert-scale response. The Likert-scale incorporated expertise definitions from Nkabinde et al (2013), ranging from “poor (know nothing)” to “excellent (able to teach someone else).”

ABOUT THE SOCIAL ENTREPRENEURS IN THIS STUDY

Baltimore Roots and Transplants

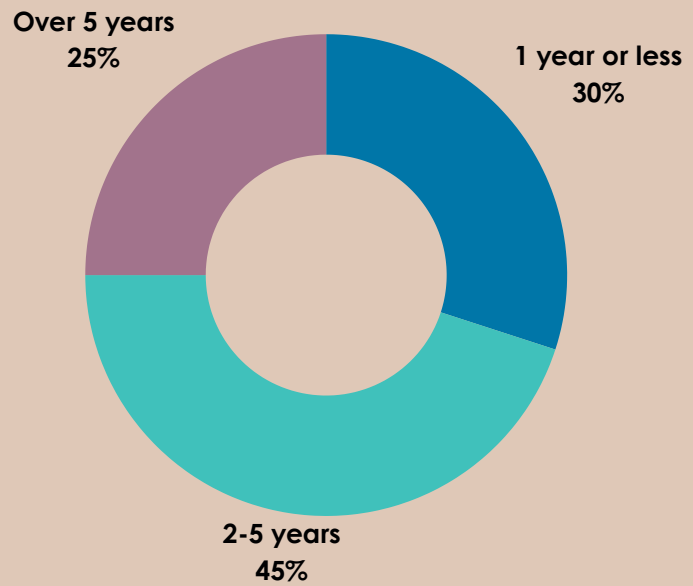
Many participants have their roots in the city, either as native Baltimoreans committed to contributing to their community's growth, while others are transplants, drawn to the city's unique history and culture and who are now pursuing their entrepreneurial ventures here. **Their businesses are largely Baltimore-based, including the majority of the entrepreneurs' vendors, partners, collaborators, and customers.** While the primary focus for most businesses is exclusively on serving the Baltimore area, some have expanded or plan to expand their reach to include the wider DMV region (Washington, D.C., Maryland, Virginia) and beyond.



Stage in Business Lifecycle

The majority of the social entrepreneurs interviewed are in the initial stages of establishing their businesses:

- **A large majority (75%)** of the social entrepreneurs interviewed have been **actively in business for five years or less**.
- **Half** have been actively in business for only **the past two years**.
- **The average duration of business operations is 3.9 years**, with a median duration of 2.5 years.



Staff Sizes

With most of the entrepreneurs still being in the early stages of establishing their businesses, their business size is reflective of this. While about **a third of the participants currently work independently, operating without employees, most have small teams (2-6 employees)** that help manage their businesses, including interns, contractors, and part-time and/or full-time staff. Additionally, most entrepreneurs, including solo operators without employees, work collaboratively with partners, vendors, mentors, and other stakeholders.

Work Models

Most entrepreneurs don't operate their businesses in a 9-5 office setting. They're frequently on the go; they may be running their business outside of their "day job;" they may not have the resources to have a devoted office space for their teams; or they may not even want an office space if they have a team that is geographically spread out or that just prefers the convenience of working remotely. While in-person collaboration does occur, **a hybrid format was the norm for most (80%) entrepreneurs' communication and collaboration activities, both with internal and external stakeholders.**



Types of Businesses

This group of social entrepreneurs comprises a diverse array of businesses offering a wide spectrum of B2B (business-to-business) and B2C (business-to-consumer) goods and services, encompassing areas such as:



CONSUMER GOODS



HEALTHCARE



MANUFACTURING



COMMUNITY &
SOCIAL SERVICES



TECHNOLOGY



AGRICULTURE



ARTS AND
ENTERTAINMENT



FITNESS

Social entrepreneurship is a for-profit business model that aims to make a positive impact on social issues or the environment. The missions of these businesses are closely aligned with the needs observed within the Baltimore community, such as **physical and mental health, sustainability, job training, community development, and equity and representation of marginalized groups.**

Some of the groups the social entrepreneurs are dedicated to serving include:

- BIPOC (Black, Indigenous, and People of Color) populations
- low-income populations
- veteran populations
- individuals with disabilities
- individuals experiencing homelessness
- returning citizens (i.e., formerly incarcerated individuals)
- Baltimore youth

Networks and Support

Establishing a robust support network can be pivotal for entrepreneurial success. Given that most of these social entrepreneurs are in the early stages of their businesses, many have found value in participating in entrepreneurial programs and organizations that provide them with support

- **Most social entrepreneurs interviewed (84%)** are involved in **at least one program or organization** supporting entrepreneurs.
- **32%** are engaged in **2-3 organizations/programs**.
- **26%** are engaged in as many as **four or more organizations/programs**.

These programs and organizations include:

- Innovation Works' Boost program
- Maryland Association of Nonprofit Organizations
- Loyola University's Baltipreneurs Accelerator
- Towson University's StarTUp
- Maryland Tech Council
- UpSurge Baltimore
- Conscious Venture Lab
- Techstars
- Baltimore Workforce Leadership Academy
- Mayor's Office of Employment Development
- Humanim
- Black Ambition
- IMPACT Baltimore
- Baltimore Corps' Elevation Award

Along with the access to support, mentorship, and other resources that these programs provide to entrepreneurs, financial support can be just as vital. **A key theme for these entrepreneurs was their financial constraints, which affected their ability to have their desired level of staffing and technological resources.** While some entrepreneurs shared that they had applied for funding or grants, few mentioned that they were receiving them, and some expressed the need for assistance with grant writing.



BALTIMORE SOCIAL ENTREPRENEURS BY THE NUMBERS

75%

Most of the social entrepreneurs interviewed have been actively in business for five years or less.

65%

Most participants have small teams (2-6 employees) that help manage their businesses, including interns, contractors, and part-time and/or full-time staff.

80%

Most entrepreneurs use a hybrid format for most communication and collaboration activities, both with internal and external stakeholders.

84%

A large majority of the social entrepreneurs interviewed are involved in at least one program or organization supporting entrepreneurs.





FINDINGS

Baltimore social entrepreneurs rely on information technology (IT) as a vital force driving both overarching goals and daily operations. IT encompasses a toolbox of hardware, software, networks, and strategies to manage, process, and leverage data in support of business objectives, operations and objectives. This toolkit includes hardware such as computers and servers, software applications, networks, databases, and various technologies used for collecting, storing, analyzing, and communicating information within the business.

TECHNOLOGY USE AMONGST BALTIMORE'S SOCIAL ENTREPRENEURS

Entrepreneurs utilize technology for a diverse range of purposes, encompassing communication and collaboration with stakeholders, marketing and data analysis, website development, project management, customer relationship management (CRM), and the seamless operation of back-office functions like accounting, payroll, invoicing, and contract management. Technology also plays a vital role in inventory management, processing sales orders, and overseeing logistics, including scheduling and transportation. For some entrepreneurs, technology is not just a tool; it constitutes the essence of their business offerings, either by providing digital services directly or indirectly through technology-enabled goods and services.

How knowledgeable are you regarding information technology?

The effective selection and use of various technologies are integral to achieving business success and fostering growth. While 65% of participants considered themselves to have a "Good" level of knowledge (i.e., able to practice independently) or an "Excellent" level of knowledge (i.e., able to teach someone else) around information technology, **a challenge frequently reported was the substantial learning curve involved in discovering, selecting, learning, and implementing new technologies.** This challenge arises from limited familiarity and experience with various technologies, as well as the time investment required to acquire proficiency in new IT solutions. Overcoming this learning curve remains a common obstacle for entrepreneurs aiming to fully harness the potential of technology.





Communication and Collaboration Technologies

Effective communication and collaboration are vital for entrepreneurs, and there are a multitude of tools at their disposal to streamline these processes. These tools facilitate the flow of information, foster teamwork, and drive productivity.

Because entrepreneurs often operate in **hybrid work settings**, virtual communication and collaboration tools are essential components of their daily operations. In addition to considerations like **cost and user-friendliness**, **entrepreneurs must remain adaptable and well-informed** about the array of tools at their disposal, as they frequently engage with diverse stakeholders, each bringing their own technology preferences to the table.

Email continues to be a fundamental method for exchanging messages and information efficiently, with participants using either **Gmail** or **Outlook**. **Phone calls** provide a personal touch, and **text messaging** has become an integral part of business communication, offering a quick and convenient way to share information and updates with team members.

Virtual meeting tools like **Google Meet**, **Zoom**, and **Microsoft Teams** have become essential for remote collaboration, enabling entrepreneurs to conduct business meetings, training sessions, and client consultations conveniently from home or while on the move. While at least 80 percent of the participants rely largely on remote work arrangements, **in-person meetings** remain essential for significant discussions, relationship-building, and for other business interactions not suited for virtual meetings.

Slack streamlines team communication, providing real-time messaging and file sharing. It's a go-to for project updates and team connectivity and was a top choice amongst the entrepreneurs due to its cost-effectiveness although one entrepreneur expressed that their team experienced challenges using it. **GroupMe**, **Discord**, and **Gmail** also are used for messaging within teams.



In addition to utilizing social networking platforms and events for business development, some entrepreneurs are tapping into technologies like **Loom**, a potent video messaging tool enabling personalized communication with clients and partners through video messages. Additionally, they explore **Blinq**, a digital business card that streamlines the instant sharing of identity and business details.

While no participants mentioned current use of **grant writing** or **fundraising software**, there's a strong desire to leverage such tools to tackle these challenging tasks effectively.

Efficient **document management** is crucial for entrepreneurs. Systems like **Dropbox**, **Google Workspace**, and **Airtable** enable entrepreneurs to organize, store, and collaborate on documents securely. This is especially valuable when dealing with contracts, agreements, and other important business documents. Many entrepreneurs opt for **Google Workspace** for collaboration due to its accessibility, versatility, and cost-effectiveness, while some use **Microsoft Office** or a combination of both.

For data documentation, entrepreneurs use **Excel**, **Google Sheets** or **Airtable**, a versatile online database tool used for tasks such as project management, CRM, content planning, and more.

Entrepreneurs also utilize **project management** tools like **Monday.com**, **Trello**, **Asana**, **Notion**, **HoneyBook**, **17 Hats**, **BaseCamp**, and **ClickUp** to streamline project planning, task management, and team cooperation, ensuring organizational alignment with project goals. These tools keep teams organized and help manage work efficiently.

Note: For a full list of the technologies utilized by participants, please see the appendix.





Marketing Technologies

The majority of participants indicated a "Good" or "Excellent" level of familiarity with marketing technology. However, many recognized marketing as a potential area for improvement, acknowledging the need for more time and effort to develop their proficiency and consistently employ it as effectively as desired. Furthermore, financial constraints were identified as a significant impediment to their advertising endeavors.

Effective **social media** management plays a pivotal role in assisting businesses in establishing a robust online presence and expanding their customer base. Entrepreneurs find social media management tools indispensable for facilitating engagement across various platforms, including **Instagram, TikTok, Facebook, LinkedIn, and YouTube**. These tools enable the scheduling and analysis of social media posts, community building, and direct customer interaction.



How knowledgeable are you regarding information technology that supports marketing?

Note: Data unavailable for one participant.

FINDINGS

While all of the entrepreneurs recognize the significance of social media in cultivating brand awareness, customer engagement, and client networking, several encounter challenges in utilizing it optimally. Crafting content for social media marketing is often a time-consuming task demanding specific skills, which not all entrepreneurs possess or can allocate time to acquire. To overcome this hurdle, some entrepreneurs have enlisted part-time or intern staff to handle their marketing endeavors, while others boost their marketing efficiency by incorporating AI tools like **OpenAI's ChatGPT** to assist in content generation. Additionally, they harness software like **Loomly** to automate and streamline their posting schedules, ensuring a consistent and engaging online presence.

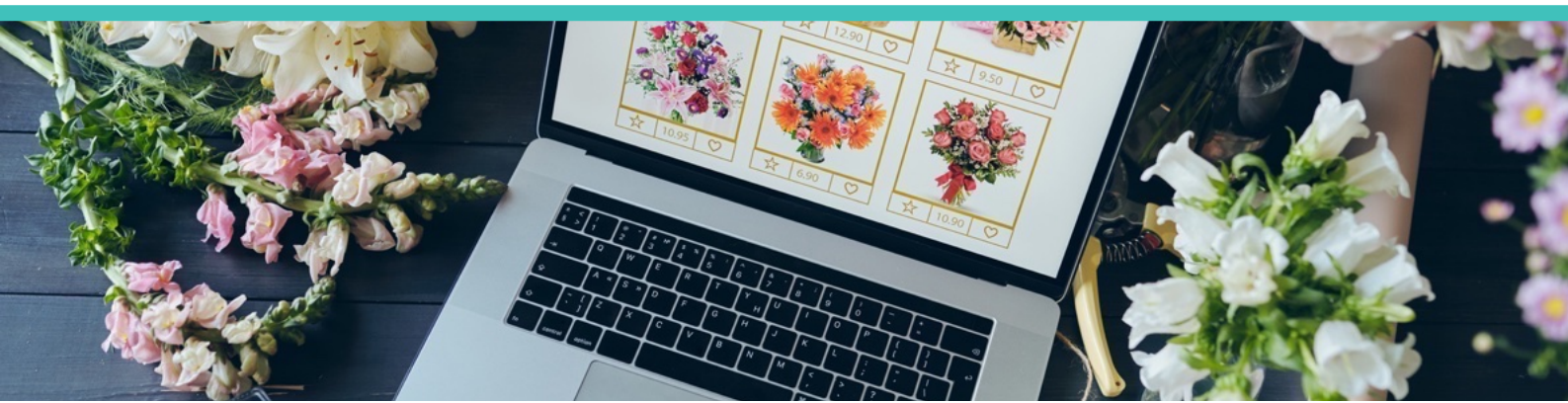
In addition, entrepreneurs utilize **social media advertising** and **pay-per-click (PPC)** platforms to initiate and oversee paid advertising campaigns. These technologies provide the means for precise customer targeting and have the potential to significantly enhance brand visibility and engagement when employed effectively. Nevertheless, a common challenge among entrepreneurs is the shortage of both expertise and budget to harness these tools optimally.

While many participants currently engage in advertising through platforms like **Facebook, Instagram, TikTok**, and **Google Ads**, or intend to do so in the future, the consensus revolved around the steep costs associated with advertising. Most entrepreneurs expressed budget constraints that hinder them from investing in advertising at the desired scale. As one participant noted:

“We have good content: we know that when we put more money into ads, we do get more followers and hits to our website, but the funds are not always available.”

In light of these financial constraints, entrepreneurs seek guidance on constructing cohesive marketing campaigns and making the most of these platforms to ensure prudent allocation of their marketing budget.

Email marketing software is a vital element of the entrepreneur's toolbox, providing the means to craft and distribute tailored email campaigns that foster customer connections and effectively market products and services. Among the platforms preferred by participants for email marketing are **Constant Contact, Mailchimp, OmniSend, Klaviyo**, and **MailerLite**, as well as **YAMM**, a Google Workspace add-on for Google Sheets and Gmail.



Entrepreneurs leverage creative tools like **Canva**, **Adobe Illustrator**, **Procreate**, and **GoDaddy Studio** to craft marketing materials and execute other entrepreneurial functions. These tools empower entrepreneurs to create visually compelling content and convey their brand identity effectively. Canva offers a user-friendly design platform for marketing collateral, while Adobe provides advanced design capabilities. Procreate enables personalized digital illustrations, and GoDaddy Studio simplifies website and branding asset creation.

Entrepreneurs may also employ a variety of video and photo editing tools for marketing and creative projects, including **CapCut**, **Adobe Premiere**, **Adobe Photoshop**, **Final Cut Pro**, and **InShot**. However, mastering some of these software programs may require more advanced training and expertise.

Entrepreneurs rely on **website** and **e-commerce platforms** to establish a robust online presence, effectively showcasing their products and services, enabling seamless transactions, and providing a user-friendly shopping experience. Since the website serves as the initial point of contact for customers, its design and functionality are crucial for making a positive impression. However, several entrepreneurs encountered challenges related to website appearance, functionality, and customer experience, leading to a common long-term need for website improvement.

Entrepreneurs also turn to **content management systems (CMS)** for easy management and updates of website content, ensuring that customers have access to current and relevant information. Frequently cited platforms for website and content management include **Wix**, **Squarespace**, **WordPress**, and **GoDaddy**. Additionally, for e-commerce, entrepreneurs often utilize platforms such as **WooCommerce**, **Shopify**, and **Poynt by GoDaddy**.

Data analytics and reporting tools offer insights into customer behavior, empowering entrepreneurs to make informed decisions, optimize marketing strategies, and enhance the customer experience. Several of the participants expressed a desire for enhanced data collection, interpretation, and visualization related to their customers, the market, and feedback on their impact to help them fine-tune their services and products accordingly.

Search engine optimization (SEO) tools like **Google SEO** empower entrepreneurs to optimize their websites for search engines, leading to increased organic traffic and improved customer acquisition through enhanced online discoverability. Many entrepreneurs expressed a keen interest in investing in this area to boost their website's visibility.

Note: For a full list of the technologies utilized by participants, please see the appendix.



Customer Experience Technologies

Entrepreneurs rely on a diverse array of technologies to enhance and support the customer experience. From managing customer relationships to delivering personalized and efficient services, these technologies play a pivotal role in shaping the success of entrepreneurial ventures.

Responses to the question regarding participants' knowledge of information technology supporting customer experience displayed a varied distribution, covering the spectrum from "Poor" to "Excellent." This diversity of responses underscores the **broad range of knowledge levels among the participants in this area, with some being confident in their abilities and others requiring support.**



How knowledgeable are you regarding information technology that supports customer experience?

Note: Data unavailable for one participant.

FINDINGS

Customer experience technologies utilized by the participants are detailed below.

Customer Relationship Management (CRM) software is essential for customer-centric businesses, allowing entrepreneurs to efficiently manage customer interactions, collect and organize customer data, and gain insights into customer preferences, allowing for personalized communication and tailored business strategies. While a few participants already employ robust CRMs, some expressed that they feel their business is too small to use one, while others expressed plans to acquire CRM systems in the near future. Some popular CRM tools among participants include **HubSpot**, **WorkSmarter**, and **DonorSnap**.

Several entrepreneurs are currently using **customer feedback and survey tools** to collect valuable data, make data-driven improvements, and promptly address customer concerns. However, for many, this is a challenging area. Participants voiced difficulties in obtaining and tracking desired feedback through the tools they currently employ (e.g., website widgets and CRMs). Some entrepreneurs who are not using these tools yet expressed a strong desire to do so.

Social media direct messaging is a valuable tool for entrepreneurs who engage with customers and clients through platforms like **Facebook**, **Instagram**, **TikTok**, and **Twitter**. These 1:1 channels allow entrepreneurs to provide quick responses and build customer relationships.

While they comprise a minority of interviewed participants, some of the entrepreneurs are developing or have plans to develop **mobile apps**, using platforms like **Mighty Networks**, to offer a personalized and convenient platform for customers to interact with their business, create community, and enhance their customer experiences.

Online booking and scheduling tools, like **Calendly** or **PushPress**, are essential for service-based entrepreneurs, enabling customers to conveniently book appointments, services, or fitness classes online, simplifying the scheduling process.



Live chat and chatbots can contribute to excellent customer service, especially for businesses operating online. They are used to provide immediate assistance to customers, answer queries, and guide them through the purchase process. **AI and machine learning technologies** are leveraged for chatbots, recommendation engines, and predictive analytics. They enable entrepreneurs to provide personalized and efficient customer interactions by anticipating customer needs. **While some participants expressed interest in implementing these tools on their websites, staffing limitations and/or financial constraints currently hinder their adoption, although several participants are leveraging AI in other ways.**

Some of the participants provide **virtual courses** as part of their services, utilizing or considering online learning platforms like **Kajabi** and **Coursera**. These platforms offer versatile solutions for creating and delivering educational content to clients and customers.

Entrepreneurs rely on a range of **payment and invoicing technologies** to streamline financial transactions and ensure smooth operations, including **PayPal/Zettle, Square, Stripe, HoneyBook, and QuickBooks**. These platforms offer flexible and secure payment options, making it convenient to receive payments and manage invoicing processes.

Note: For a full list of the technologies utilized by participants, please see the appendix.





Operations and Back Office Technologies

Entrepreneurs rely on a diverse set of back-office technologies to manage their business operations efficiently. These technologies cover a wide spectrum, from financial management and human resources to administrative tasks and beyond.

Entrepreneurs utilize a range of **hardware and devices** such as **desktop and laptop computers, smartphones, tablets, cameras,** and **audiovisual equipment** based on their specific business requirements and objectives. Some entrepreneurs have indicated a need for upgraded and faster equipment but currently lack the financial means to do so.

Customer Relationship Management (CRM) software like **HubSpot** or **WorkSmarter** is not limited to front-end customer interactions. Entrepreneurs also use these platforms to streamline back-office operations, such as managing customer data, automating marketing campaigns, and tracking sales leads and conversions.

When it comes to **managing contracts**, some entrepreneurs turn to **HoneyBook**, while others simply use **sample contracts available online**.

Accounting software plays a crucial role in an entrepreneur's financial management, simplifying tasks like bookkeeping, invoicing, expense tracking, and tax preparation. While **QuickBooks** is considered the industry standard by many and is used by several entrepreneurs, budget limitations and the learning curve associated with the software has led some entrepreneurs to opt for more manual but budget-friendly alternatives like **Excel** or **Google Sheets**.

Human Resources Management Systems (HRMS) software is designed to assist entrepreneurs in overseeing key HR functions, such as employee onboarding, benefits administration, time tracking, and performance evaluations. Entrepreneurs also use payroll software to automate payroll calculations, tax withholdings, and payments to ensure employees are paid accurately and on time while minimizing compliance risks. While HRMS and **payroll software** become more essential as small businesses expand, currently, only one participant has incorporated HRMS tools into their operations, using **Gusto** for payroll management and **When I Work** for employee scheduling and time tracking.

Entrepreneurs in retail, e-commerce, or product-based businesses often employ **inventory management software**, such as **Zoho Inventory** or **TradeGecko**, to monitor stock levels, streamline order management, and enhance inventory turnover. While these tools are not currently in use by this group of participants, who are at the early stages of business development, they express the intention to incorporate such technology as a long-term goal. One participant does currently use a basic version of **ShopVOX**, a cloud-based management software for custom manufacturers, assisting with workflow, quotes, job tracking, and customer relationships.





Data Security

Data security is a fundamental yet sometimes neglected aspect of entrepreneurial success, highlighting a potential area for entrepreneurs to enhance their skills through training. Entrepreneurs handle a range of sensitive data, including **customer PPI, transaction records, financial data, intellectual property**, and more.

When it comes to data security knowledge, most participants described their expertise as "Average," with levels of confidence and knowledge varying among entrepreneurs. Some demonstrated advanced proficiency ensuring that all data and platforms they use are **encrypted**, using **SSO certificates**, and employing **anti-theft software, malware protection**, and **two-step authentication**. Some also invest in additional security measures to prevent data breaches, implement robust **data protection protocols** in accordance with strict privacy policies, use **confidentiality mode** for secure email sharing, and restrict access to financial and other sensitive data. Others, however, displayed lower confidence and knowledge, primarily relying on **passwords** and trusting the **built-in security of third-party platforms** they use.

How knowledgeable are you regarding computer security?

Note: Data unavailable for two participants.

CHALLENGES AND PAIN POINTS

We will now explore the primary challenges and pain points experienced by these social entrepreneurs in using technology effectively. The most significant constraints experienced revolve around time, financial resources, and technological expertise, which we will discuss more in detail below.

Some of the frequently mentioned technological needs entrepreneurs expressed included: **improved websites to enhance their online presence and customer experience**, more **user-friendly design and marketing tools**, **improved security**, and **enhanced data analytics** to better understand their customers, the market, and their business impact.

Others were more process related, including **automated and scalable tools and systems** to increase efficiency, a better understanding of how to use **AI for productivity**, and for one entrepreneur, “a succinctly manageable sales process.” Specific technologies frequently cited as a need included **tools for project management, accounting, CRM, data analytics, and marketing**.





Technological Learning Curves

Entrepreneurs assume a multitude of roles, functioning as self-taught CEOs, marketers, bookkeepers, and project managers. Participants expressed having varying levels of technological expertise with project management, accounting, marketing, and CRM technologies, often acquiring skills on the go as the situation demanded.

They have adopted diverse learning methods, ranging from self-teaching to leveraging free resources like YouTube and online articles. Some choose to invest in formal training, often related to bookkeeping, which is commonly regarded as one of the more complex aspects of running a business.

Some navigated steeper and more protracted learning curves, with one participant openly admitting,

"I don't understand technology."

Others exhibited more confidence in their abilities but lamented the time required for learning and integrating new technologies as much as their less knowledgeable counterparts.

Irrespective of their proficiency, all entrepreneurs recognized the challenges associated with dedicating time to 1) discover and identify technologies aligning with their business needs, 2) implement the chosen technologies effectively, and 3) maximize their full potential. As one participant articulated,

"This journey involves progressing from being comfortable to becoming an expert."

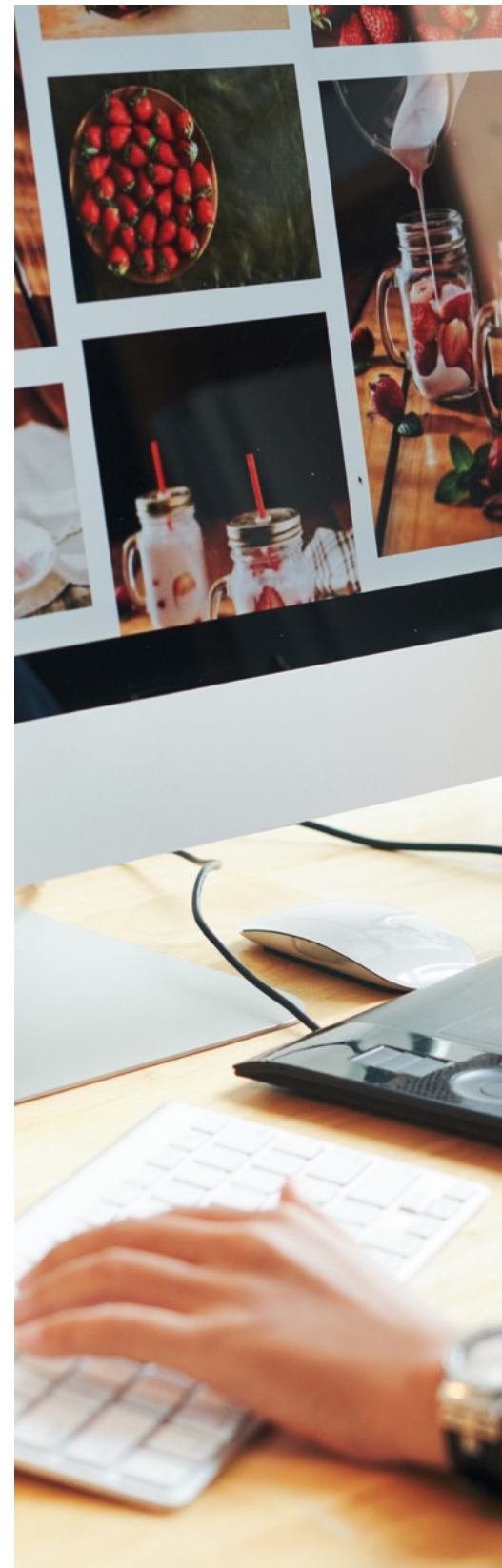
Another emphasized that the challenge extends beyond grasping the basics of something like marketing; it's also about determining the most effective strategies for gaining visibility, a process that demands substantial time and effort—resources that could be directed toward other aspects of their businesses.

Implementation Challenges

Given these challenges, **most entrepreneurs prioritize having technology that is both up-to-date and user-friendly and are open to experimenting with new solutions as needs evolve.** It's not uncommon for entrepreneurs to adopt a trial-and-error approach to find the best-fit solutions while navigating changing resource constraints. However, in this pursuit, there are several key considerations and potential drawbacks to keep in mind. These include questions about whether new technology aligns with their business needs, scales effectively, and is cost-efficient, easy to learn, and simple to implement.

While the prospect of integrating new technology may initially appear daunting, **most entrepreneurs expressed a high degree of adaptability and flexibility, provided that the advantages outweigh the associated costs and complexities.** As one participant expressed, they might feel a bit overwhelmed initially, given the time needed to learn something new, but they would embrace it if it significantly improved their efficiency. Similarly, another entrepreneur viewed switching to new technology as an opportunity for growth and enhancement, provided it aligned with their mission and user needs, even if it involved implementation challenges.

Nevertheless, some entrepreneurs expressed less flexibility for various reasons. For some, it hinged on whether their staff was open to change and able to learn the new technology. Others were particularly attached to specific tools they loved but remained open to replacing other technologies. Some were only willing to consider a change if it brought dramatic improvements without disrupting their current systems, which they were actively trying to build and scale.



Building Business Systems and Scaling

While not all participants appeared to be at this stage in their business lifecycle, several emphasized the importance of building and automating scalable systems and processes, acknowledging the challenges involved. **Given the numerous back-office tasks most entrepreneurs handle alone or with limited staff, efficient systems and processes are crucial for their success in both the short and long term.**

While a significant number of participants expressed contentment with their current toolset, they also acknowledged the necessity for streamlining and process enhancement. One entrepreneur aptly characterized her tech stack:

“I think I have a solution for all my needs at the moment, but it's kind of just a patchwork quilt.”

Moreover, several others highlighted their requirements for automation across various aspects, including data collection, managing missed phone calls, enhancing customer engagement (via emails, surveys, etc.), improving marketing efforts, handling administrative tasks, and simplifying appointment scheduling.

Entrepreneurs often find themselves in a situation where they're essentially "building the plane while flying it." They must identify their technology requirements and simultaneously establish solutions and workflows that fit the scale of their business, which has been a major challenge for some. **When introducing new technology, they aim to ensure effective integration with existing systems and long-term compatibility as the business scales. However, strategic system building can be difficult,** especially if the existing system lacks a well-thought-out structure. Developing this expertise can be a struggle for many entrepreneurs, even those with experience.

Even with intentional strategizing, entrepreneurs face constraints that are often beyond their control. A technology that was the right fit when initially implemented may no longer align with evolving business goals. Additionally, subscription-based technologies may become cost-prohibitive as the business grows. **Many entrepreneurs rely on basic, free versions or trial versions of software until they need to scale or their free access expires, leaving them in a challenging position.**

Entrepreneurs "don't know what they don't know," which underscores the need for guidance in strategically building their systems and processes. Such guidance can help them save time and money when investing in technologies while enhancing productivity and profitability, particularly if they have tools and systems in place that optimize their workflows.

Dealing with Financial Constraints

Financial constraints are one of the largest barriers for entrepreneurs, who must engage in careful calculations to determine the tradeoffs in investing in certain technologies with goals of improving visibility, enhancing productivity, and increasing profitability. Entrepreneurs commonly face the challenge of needing to balance cost and benefits. **Their choice of tools often depends on versatility and cost-effectiveness with the most cost-effective options often being prioritized.**

As one participant, a former IT project manager, explained, "I like Notion a lot... I like timelines and deliverables, and Notion has all of that. The constraint becomes the cost, because at a certain point, you're paying per user, so I'm paying for the collaborators to come into my board. So, if it's a short-term project, I won't use it; I'll use Slack."

Another cost-versus-benefits example is HoneyBook, a comprehensive business management and financial software platform tailored for creative entrepreneurs and small business owners. While several participants expressed interest in using the platform, somewhat ironically, some deemed it cost prohibitive at this stage in their business.

Entrepreneurs have a range of needs that largely revolve around having more time, technological know-how, and financial resources. For some, more funding and more staff are their greatest needs, which can be assisted with the right technologies. Financial constraints can limit the ability to have the desired level of staffing, and effective fundraising and grant writing can make a big difference.

Although none of the participants are currently utilizing grant writing and fundraising software, there's a clear and compelling desire to incorporate these tools and harness the power of AI to address these tasks effectively. Considering the critical significance of grant writing and fundraising, particularly for early-stage entrepreneurs, providing guidance and training in this domain could be immensely valuable.



Technological Needs

Based on the challenges and needs expressed by Baltimore's social entrepreneurs, here are the general areas of need identified for Baltimore's social entrepreneurs that we recommend serve as the basis for future training and support materials:



Technology Tools and Implementation: Many entrepreneurs expressed the need for improved websites to enhance their online presence and customer experience. They are also seeking user-friendly design and marketing tools, enhanced cybersecurity measures, and improved data analytics to better understand their customers and the market.



Operational Efficiency: Entrepreneurs are looking for solutions related to process automation and scalable systems that can increase their productivity. They are interested in understanding how to use AI effectively. Additionally, they require robust CRM and project management tools to streamline operations.



Financial Management: Cost-effective technology options are a priority for many entrepreneurs, and they seek budget-friendly financial management tools that can help them manage their resources more efficiently.



Resource Acquisition: Grant writing and fundraising are crucial tasks for early-stage entrepreneurs. Although not currently utilizing specific software, they express a clear need to harness the power of AI and other tools to address these tasks effectively.



Continuous Learning and Skill Development: Entrepreneurs recognize the importance of continuous learning and skill development. They seek support in this area and are open to flexible learning formats.



Peer Support and Guidance: Peer support and networking opportunities are essential for entrepreneurs. They also value mentorship and coaching to help them navigate the challenges they face.



Technology Decision-Making: Entrepreneurs need guidance on evaluating and selecting the right technology solutions. They find value in case studies and success stories that can inform their decision-making.



Sustainability and Ongoing Support: Entrepreneurs are looking for ongoing support and regular updates to keep their technology and processes current and effective.

These areas of need encompass the technological challenges and requirements expressed by Baltimore's social entrepreneurs and provides a framework for developing training and support materials to address these challenges effectively. Addressing these areas with effective support can significantly aid their growth and success.



RECOMMENDATIONS

Baltimore's social enterprises represent a promising avenue for addressing the city's multifaceted social challenges. To empower these enterprises effectively, it is essential to understand their technological needs to provide effective support. In doing so, Baltimore can further bolster these organizations in their mission to create a lasting and positive impact on its communities.

In this study, we have delved into the digital landscape of Baltimore's social entrepreneurs, shedding light on the ways technology is leveraged, the challenges encountered, and the recommendations for future support. These individuals are dedicated to addressing pressing social issues, and technology plays a vital role in their mission.

Baltimore's social entrepreneurs have harnessed technology in several crucial ways. They have recognized the importance of an enhanced online presence and have sought improvements in their websites to offer a more engaging and informative experience for their stakeholders. The power of data analytics is also evident, with these entrepreneurs being eager to understand their customer base, the market, and their business impact. Automation and scalability are key objectives, allowing them to streamline operations and maximize productivity. Furthermore, prudent financial management, including accounting, budgeting, and resource allocation, plays a pivotal role in their ability to continue their work effectively. Additionally, grant writing and fundraising emerge as indispensable components for sustainability and growth.



However, as with any journey, this one is not without its challenges. Entrepreneurs navigate steep technological learning curves, marked by varying levels of expertise, often learning on the fly as their endeavors demand and as time allows. The implementation of new technology is another hurdle, as it necessitates weighing costs, benefits, and adaptability. Building efficient business systems, which are critical for growth, is a task demanding time and careful planning, especially for those with less structured systems in place. Financial constraints are a universal challenge, requiring calculated decisions about the allocation of limited resources.

To address these challenges and empower Baltimore's social entrepreneurs in their journey, we recommend a series of strategic actions:



Technology Tools and Implementation: Offer support for enhanced websites, user-friendly design and marketing tools, cybersecurity measures, and data analytics solutions to improve their online presence, data-driven decision-making, and security.



Operational Efficiency: Provide guidance on automation, scalability, effective use of AI, and tools for CRM and project management to streamline operations.



Financial Management: Offer cost-effective financial management tools to help entrepreneurs better manage their resources.



Resource Acquisition: Assist entrepreneurs in grant writing and fundraising with a focus on incorporating AI-powered tools to improve efficiency.

RECOMMENDATIONS



Continuous Learning and Skill Development: Facilitate opportunities for continuous learning and skill development, recognizing that many entrepreneurs are self-taught and desire flexible learning formats.



Peer Support and Guidance: Foster networking opportunities, peer support, and mentorship to help entrepreneurs navigate challenges and share knowledge.



Technology Decision-Making: Provide guidance on technology selection and share case studies to inform decision-making and ensure entrepreneurs invest wisely.



Sustainability and Ongoing Support: Ensure that entrepreneurs receive regular updates and continuous support to keep their technology and processes current and effective.

By acting on these recommendations, we can empower Baltimore's social entrepreneurs to leverage technology more effectively in their mission to create positive community impacts. The success of these entrepreneurs ultimately translates into improved lives and communities, making Baltimore a better place for all its residents. The journey may be challenging, but with the right support, Baltimore's social entrepreneurs will continue to drive positive change, and technology will be their steadfast ally in this endeavor.



REFERENCES

Barton, I. M. (2022). *Strategies for Succession Planning and Sustained Business Profitability for Small Business*.

Caldas, S. V., Turkel, R., Nelson, A., Pandey, S., Wu, Y., Broaddus, E., Beebe, M., Rivera, G., & Winch, P. (2018). 'All of that's gone now': *The Failure to Sustain Police-Youth Programmes in Baltimore City*. *Police Journal: Theory, Practice and Principles*, 91(2), 150–172. <https://doi.org/10.1177/0032258X17694373>

Ellison, Raenetta L. (2018) "Reducing the Prevalence of Childhood Obesity in Households Receiving Supplement Nutrition Assistance Program Benefits in Baltimore City, Maryland Through Interactive Nutrition Education," *Health Law and Policy Brief*: Vol. 12 : Iss. 1, Article 2.
Available at: <https://digitalcommons.wcl.american.edu/hlp/vol12/iss1/2>

Fitzhugh, H., & Stevenson, N. (2015). *Inside Social Enterprise: Looking to the Future*. Policy Press.

Jan, B. K., & Maulida, M. (2022). The role of leaders' motivation, entrepreneurial leadership, and organisational agility in *Social Enterprise Sustainability*. *The South East Asian Journal of Management*, 16(2), 97–117.
<https://doi.org/10.21002/seam.v16i2.1167>

Nkabinde, T C et al. Internship training adequately prepares South African medical graduates for community service – with exceptions. *South African Medical Journal*, [S.l.], v. 103, n. 12, p. 930-934, sep. 2013. ISSN 2078-5135. Available at: <http://www.samj.org.za/index.php/samj/article/view/6702>. Date accessed: 29 Jan. 2024. doi:10.7196/SAMJ.6702.

Sachs, A. L., Boag, A. E., & Troy, A. (2023). Valuing urban trees: A hedonic investigation into tree canopy influence on property values across environmental and social contexts in Baltimore, Maryland. *Urban Forestry & Urban Greening*, 80, 127829. <https://doi.org/10.1016/j.ufug.2022.127829>

APPENDIX

TECHNOLOGIES USED BY PARTICIPANTS

| COMMUNICATION & COLLABORATION TECHNOLOGIES | | | |
|--|---------------------------------|----------|----------|
| TECHNOLOGY | FUNCTION | INTERNAL | EXTERNAL |
| Gmail | Email, Messaging | X | X |
| Outlook | Email | X | X |
| Google Meet | Video Conferencing | X | |
| Zoom | Video Conferencing | X | |
| Microsoft Teams | Video Conferencing | X | |
| Text messaging | Messaging | X | |
| Slack | Messaging | X | X |
| GroupMe | Messaging | | X |
| Discord | Messaging | | X |
| Facebook | Direct messaging | | X |
| Instagram | Direct messaging | | X |
| TikTok | Direct messaging | | X |
| X/Twitter | Direct messaging | | X |
| LinkedIn | Business Development/Networking | X | X |
| Loom | Business Development/Networking | | X |
| Blinq | Business Development/Networking | | X |
| Dropbox | Document Management | X | |
| Google Workspace | Document Management | X | |
| Airtable | Document Management | X | |
| Microsoft Office | Document Management | X | |
| Google Sheets | Data Documentation | X | |
| Excel | Data Documentation | X | |

COMMUNICATION & COLLABORATION TECHNOLOGIES (CONT.)

| TECHNOLOGY | FUNCTION | INTERNAL | EXTERNAL |
|------------|--------------------|----------|----------|
| Airtable | Data Documentation | X | |
| HoneyBook | Project Management | X | |
| Trello | Project Management | X | |
| Asana | Project Management | X | |
| 17 Hats | Project Management | X | |
| Monday.com | Project Management | X | |
| BaseCamp | Project Management | X | |
| Notion | Project Management | X | |
| ClickUp | Project Management | X | |

MARKETING TECHNOLOGIES

| TECHNOLOGY | FUNCTION | INTERNAL | EXTERNAL |
|------------------|-------------------------------|----------|----------|
| Instagram | Marketing/Customer Engagement | | X |
| FaceBook | Marketing/Customer Engagement | | X |
| TikTok | Marketing/Customer Engagement | | X |
| LinkedIn | Marketing/Customer Engagement | | X |
| Loomly | Marketing/Customer Engagement | | X |
| YouTube | Marketing/Customer Engagement | | X |
| Google Ads | Marketing/Customer Engagement | | X |
| Radio Ads | Marketing/Customer Engagement | | X |
| ChatGPT | Content Creation/Editing | X | |
| MailerLite | Email Marketing | | X |
| Constant Contact | Email Marketing | | X |

| MARKETING TECHNOLOGIES (CONT.) | | | |
|--------------------------------|---------------------|----------|----------|
| TECHNOLOGY | FUNCTION | INTERNAL | EXTERNAL |
| YAMM | Email Marketing | X | X |
| OmniSend | Email Marketing | | X |
| Klaviyo | Email Marketing | | X |
| MailChimp | Email Marketing | | X |
| Canva | Graphic Design | X | |
| ProCreate | Graphic Design | X | |
| Adobe Illustrator | Graphic Design | X | |
| GoDaddy Studio | Graphic Design | X | |
| CapCut | Video/Photo Editing | X | |
| Adobe Premier | Video/Photo Editing | X | |
| Final Cut Pro | Video/Photo Editing | X | |
| InShot | Video/Photo Editing | X | |
| Adobe Photoshop | Video/Photo Editing | X | |
| Wix | Website/CMS | | X |
| SquareSpace | Website/CMS | | X |
| WordPress | Website/CMS | | X |
| GoDaddy | Website/CMS | | X |
| WooCommerce | E-commerce | | X |
| Shopify | E-commerce | | X |
| Poynt by GoDaddy | E-commerce | | X |
| Google Analytics | Web Analytics | X | |

| CUSTOMER EXPERIENCE TECHNOLOGIES | | | |
|----------------------------------|-------------------------------------|----------|----------|
| TECHNOLOGY | FUNCTION | INTERNAL | EXTERNAL |
| WorkSmarter | CRM | X | |
| HubSpot | CRM | X | |
| DonorSnap | CRM | X | |
| PushPress | Appointment and/or Class Scheduling | X | X |
| Calendly | Appointment and/or Class Scheduling | X | X |
| PayPal/Zettle | Payment/Invoicing | X | X |
| Square | Payment/Invoicing | X | X |
| Stripe | Payment/Invoicing | X | X |
| HoneyBook | Payment/Invoicing | X | X |
| QuickBooks | Payment/Invoicing | X | |
| Kajabi | Educational Courses | | X |
| Sugarwod | Workout App | X | X |
| Mighty Networks | Community App/Platform | | X |

| OPERATIONS & BACK OFFICE TECHNOLOGIES | | | |
|---------------------------------------|---------------------|----------|----------|
| TECHNOLOGY | FUNCTION | INTERNAL | EXTERNAL |
| iPhone | Hardware/Equipment | X | |
| Android phone | Hardware/Equipment | X | |
| Macbook | Hardware/Equipment | X | |
| Laptop | Hardware/Equipment | X | |
| Cameras | Hardware/Equipment | X | |
| A/V equipment | Hardware/Equipment | X | |
| HoneyBook | Contracts/Invoicing | X | X |

| OPERATIONS & BACK OFFICE TECHNOLOGIES (CONT.) | | | |
|---|-------------------------------|----------|----------|
| TECHNOLOGY | FUNCTION | INTERNAL | EXTERNAL |
| Google Sheets | Accounting | X | |
| Excel | Accounting | X | |
| QuickBooks | Accounting | X | |
| WorkSmarter | CRM | X | |
| HubSpot | CRM | X | |
| ShopVOX | Manufacturing/Shop Management | X | |
| Gusto | Payroll | X | |
| When I Work | Scheduling/Time Tracking | X | |