

Information Systems Consulting Project (67-373)

BrandWorth LLC

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Executive Summary

Community Partner Background

BrandWorth LLC is a branding firm dedicated to helping small and medium-sized private companies strengthen their brand identity and valuation. The company is still in its early stages and lacks a formal technological infrastructure.

Project Description

Initially, BrandWorth LLC faced a significant operational challenge due to the absence of a formal database management system or standardized information management practices. Their brand valuation process was conducted manually across numerous Google spreadsheets, which led to inefficiencies, a higher risk of error, and even difficulties scaling their operations. Our project engagement focused on building a foundational technical solution that could streamline the brand evaluation workflow, automate key calculations, and create an organized structure for client data management.

Moreover, our vision was to develop an intuitive and maintainable database system that would serve as the first step toward BrandWorth's broader goal of automating its valuation methodology. Specifically, we aimed to design a solution that consolidated the survey inputs, normalized evaluation scores, and generated consistent financial valuations, which were all done while maintaining usability for a non-technical audience. We also envisioned creating comprehensive technical documentation to enable future scalability and a smooth transition to a more sophisticated platform when BrandWorth expands.

Project Outcomes

Through our project, we significantly enhanced BrandWorth's operational capabilities by delivering an automated Airtable solution that captures client evaluation and financial data, standardizes inputs through normalization, and automatically calculates the Brand Strength Score and final brand valuation. We also improved BrandWorth's internal understanding of its data processes, facilitated knowledge transfer through detailed documentation, and even prepared the groundwork for its future technical expansion.

Project Deliverables

Our primary deliverable was a fully functioning Airtable database system with completely integrated survey forms, scoring automations, and a client communication workflow. Alongside the database, we delivered detailed documentation explaining the data architecture, data flow diagrams, automation logic, and validation strategies. We also provided a GitHub repository

hosting final artifacts, a Figma prototype showcasing user flow, and demo videos to guide the BrandWorth team in using and maintaining the system effectively.

Recommendations

To ensure BrandWorth has long-term success, we recommend that BrandWorth transition from Airtable to a scalable relational database solution, such as PostgreSQL or Firebase, as its client base grows. We advise formally designating a technology owner within their organization to manage future developments, system maintenance, and documentation updates. Also, we propose expanding the current prototype into a client-facing platform with dashboards and automated reporting capabilities. Finally, we would emphasize the importance of implementing regular data backups to protect against data loss and ensure operational resilience.

About the Team

Our project team consisted of three Carnegie Mellon University information systems juniors: Jorge Gracia (Lead Technologist), Mia Li (Team Lead and Systems Designer), and Saanika Chauk (Project Manager and Coordinator). Each contributed to technical development, client management, quality assurance, and documentation. Throughout the semester, we worked closely with BrandWorth's leadership and our faculty advisor to ensure that our deliverables aligned with the organization's technical and strategic needs.

Background

About the Organization

BrandWorth LLC is a branding firm headquartered in Youngstown, Ohio, that specializes in helping small and medium-sized private companies strengthen their brand identity and valuation. The company operates within the branding and marketing technology section to help provide businesses with data-driven solutions to enhance their market positioning. The key distinction is that, unlike large publicly traded corporations, many private companies struggle to quantify the value of their brand, which makes it difficult to leverage branding as a competitive advantage. Hence, BrandWorth aims to bridge this gap by offering proprietary branding tools and strategic insights to empower businesses in their respective markets.

"BrandWorth's mission is to make brand-building and ownership valuable for private companies by helping them develop positioning strategies."

To achieve this mission, BrandWorth employs its primary proprietary branding process called BrandMRI. This tool utilizes behavioral economics, analytics, a special valuation formula developed by Jeff, and branding best practices to assess a company's strengths and recommend positioning strategies that improve market competitiveness.

BrandWorth is still in the early stages of its growth and currently operates with a small team of five core members. The company has established a strong strategic vision and understanding of the evaluation and valuation process, but has yet to build a formal technology infrastructure or IT management system. As a result, much of its branding assessment process remains manual, which opens an opportunity for technological innovation to streamline its services.

Current Technology Practices

Programs

Program or Product	Short Description	How does the Program support the organization's mission?	How is Technology used?
BrandMRI	One of their proprietary branding process that helps businesses assess their brand's strengths through evaluation	It provides private companies with data-driven insights that improve brand valuation and strategic positioning.	Conducted via a survey that uses behavioral economics, proprietary analytics, and data-driven

	and valuation, and positioning relative to competitors.		insights to evaluate branding metrics and generate actionable recommendations.
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Staff

Name, Title, responsibilities	Computer Hardware Used	Computer Applications Used	Familiarity / Training
Jeff Hedrich, <i>Founder and CEO</i>	<i>Laptop, office machines</i>	<i>Google Office Suite, Figma</i>	<i>Unfamiliar with the technology details, but familiar with utilizing it</i>
Phil Johnston, <i>VP of Brand Evaluation Service</i>	<i>Laptop, office machines</i>	<i>Google Office Suite</i>	<i>Unfamiliar with the technology details, but familiar with utilizing it</i>
Jeremy Scott, <i>Creative Director</i>	<i>Laptop, office machines</i>	<i>Google Office Suite, Figma</i>	<i>Familiar with Figma and Google, not the data analysis</i>
Jarred Kalina, <i>Technical Lead</i>	<i>Laptop, office machines</i>	<i>Google Office Suite, VSCode, Other Development platforms</i>	<i>Familiar with technology and how it works</i>
Bryan Boye, <i>Adviser</i>	<i>Laptop, office machines</i>	<i>Google Office Suite</i>	<i>Familiar with technology and how it works</i>

Technology Infrastructure

BrandWorth LLC has established a strong strategic vision for its branding and valuation services, but it currently lacks a formal technology infrastructure. Currently, they use an on-site server that can be accessed via VPN to store client information. The organization does not yet utilize any standardized software or cloud solutions. However, they have developed a proprietary survey methodology that includes company valuation formulas, which presents future opportunities to

develop a custom SaaS platform that can automate the survey process, analyze responses, and generate branding insights in a scalable manner.

Technology Management

At this stage, BrandWorth only has one member of the team responsible for managing the IT infrastructure. Their primary focus previously was on business strategy rather than technical operations. Since Jarred is the only member who would be able to support technology management processes that are in place, implementing a technological solution that is not intuitive and easy to maintain would not be a feasible long-term solution for BrandWorth.

Technology Planning

As CEO, Jeff is the primary decision-maker. However, the five core members of BrandWorth collaborate in discussions regarding budgeting and technology matters to make the best decisions for their organization. Bryan acts as an advisor, helping them make decisions for this start-up. Jarred was recently recruited as a technology lead for the BrandWorth team as of March 2025.

Information Management

While BrandWorth's valuation process is currently reliant on manual collection and input of data, its long-term vision is to establish this process into a fully automated and streamlined system. As of right now, BrandWorth uses an online survey to collect unique information about a client company's competitive attributes, specifically through their NAICS code (refer to the appendix). This helps them classify business establishments and from them, they collect financial data such as revenue, profitability, and industry benchmarks to compare against similar companies.

The structure of the surveys — including their questions, input types, and response options — is managed across dozens of Excel spreadsheets. Their setup for storing any type of data lacks cohesive organization and reveals that there is no clear definition of how the data flows throughout each part of the valuation process. Without a foundational framework for managing any of the data that they require to be collected, BrandWorth is not able to keep track of or analyze information in an efficient, structured manner.

Project Description

Project Opportunity

BrandWorth initially faced a few critical challenges:

1. BrandWorth had no centralized system to store the data required to accurately value a company's brand. The entire process, from the client interviews to the valuation

algorithm calculations, was handled manually, leading to inefficiencies and a high risk of error. A variety of data sources, such as the NAICS code, client survey data, and the financial data of both the client company and companies in the same industry, play an important role in determining how much value a brand has. Hence, a lack of a central location for data storage and access led to general disorganization and inefficiency.

2. There was no standardized process for collecting, storing, and analyzing the data necessary for the brand valuation process. This led to the process being very time and labor-intensive. There was also no documentation on how to complete each step of the valuation process, so it was difficult for anyone to recreate the brand strength score calculations. This would have been a large issue when BrandWorth scales up if Jeff were the only one capable of doing the calculations.

BrandWorth had not previously attempted solutions to transform the manual valuation process into an automated, technical one. Our goal was to create the foundational framework for the organization to better understand how the data flows, the structure of each piece of data, and the relationships between each data point. Then, we planned to implement a simple database solution linked to the necessary data collection forms to organize the data and then be able to calculate the brand strength score and brand financial value automatically. Ultimately, the integration of this database system allowed BrandWorth to bring together the necessary data points and run the algorithm, leading to more accurate, consistent, and efficient calculations.

Project Vision

Specific Problem/Opportunity Addressed

For our solution, we decided to address the first two opportunities of developing a centralized data storage system and creating a standardized process for calculating the brand strength score and financial valuation. We focused on consolidating all the data sources that they use for the calculations, understanding the formula, and then implementing a series of forms that collect this data and store it in an Airtable database. Within the Airtable database, it then completes the calculations based on a set formula, producing consistent and efficient results.

BrandWorth's previous process of collecting information was very fragmented, and, upon numerous discussions, we realized that there existed many gaps in knowledge even among the five core members of BrandWorth about how all the data points interacted and what the data looked like. Without a formal understanding of the details of the evaluation and valuation process that they have developed, it would have been extremely difficult for the data to be integrated into an automated database system. Our solution began by laying the groundwork to clarify these processes in a formal data workflow and user story documentation. We then implemented a simple, user-friendly database solution with Airtable to help BrandWorth

consolidate the necessary data in one place and perform the brand valuation calculations automatically.

Key Stakeholders

The key stakeholders of this solution include:

- **Five key executives:** They create, oversee, and guide the actual valuation process for their private client companies.
- **Private client companies:** They will benefit from a more streamlined, efficient, data-driven approach to the valuation process.
- **Future external IT consultants or technology co-leads:** They need to understand the foundation of the data structure and data flow to manage the implementation and maintenance of a database system.

Alternative Solutions

Some alternative solutions we had considered were to create a more intensive database solution, leveraging either a MongoDB or SQL-based database. However, we soon realized that we could not implement a complex database management system when BrandWorth did not have a full understanding of the data they were collecting and their sources. Trying to implement a functional database system without understanding data structure and flow would later lead to data integration and scalability issues.

After creating a comprehensive data flow chart and fully piecing together the valuation process, we decided that leveraging a more user-friendly organization/database platform would be a more sustainable solution for our client. We had first alternatively considered using Google Forms and Google Sheets to collect the information and store it to perform the calculations. However, Google Forms and Sheets had a lot of limitations in terms of the work we needed to do, particularly with turning the survey results into numbers. Hence, we ultimately settled on Airtable since it was user-friendly, functioned more similarly to an RDBMS, was able to host our surveys, and allowed us to make complex calculations and operations with their automations.

Importance of Addressing the Problem

As mentioned above in the opportunities section, BrandWorth relies on large amounts of data, both from the survey process and external sources.

Here is a brief breakdown of how the data sources play a role in the valuation process:

- The NAICS code is collected from the End-User Admin

- End-Users will take the evaluation and valuation surveys -> the results of the evaluation survey affect how much each question in the valuation survey is weighted for their final valuation score.
- At least 3 years' worth of financial information from the client company is collected.
- Deal stats data source, which is based on the given NAICS code, is analyzed for financial analysis & comparison between similar companies.

The abundance of data that must be handled is overwhelming, and the previous manual approach led to inefficiencies and potential errors in addition to the team having a lot of ambiguity regarding the data specifics. Hence, without an efficient way to manage this data and perform the calculations automatically, BrandWorth was unable to leverage its valuation algorithm to its full potential, nor provide timely insights to clients. By establishing a user-friendly database solution, surveys with standardized inputs, structured documentation, and automatic score calculations, we enabled them to transition smoothly into a more proper RDBMS and overall reduce the risk of data loss and inconsistencies while improving the efficiency of the valuation process.

Project Outcomes

People

Our project significantly enhanced the internal technical understanding and confidence of the BrandWorth team. At the beginning of the semester, only one team member, Jared, had any prior experience as a software engineer with implementing technology solutions, and the rest of the team primarily focused on strategic branding, marketing, and client services. Throughout our engagement throughout the semester, we worked closely with Jeff, Bryan, and Jared to demystify how their manual valuation process could be transformed into a semi-automated, structured data workflow.

Specifically, by walking through our Airtable implementation weekly, we built a shared vocabulary around key data concepts such as normalized inputs, financial formulas, industry multipliers, and even the score aggregation. This process was continuous and didn't come immediately from the beginning. The BrandWorth team was able to follow along with and eventually contribute to these discussions. This growing literacy allowed BrandWorth to not only understand our prototype but also actively shape its logic and constraints. Jeff and Bryan, for example, were able to directly validate how brand equity factors mapped into our evaluation scoring system, and Jeremy offered valuable feedback on the clarity and presentation of the survey inputs for Airtable.

Hence, as a result, BrandWorth is now better prepared to onboard future clients into a structured valuation pipeline and to work collaboratively with future developers or technical consultants.

They have also developed a clearer sense of the technical skills they will need to hire for as they expand.

Process

Best Practices

Throughout the project, we made sure to include lots of documentation on our technology and processes, and iterative testing. We aligned closely with BrandWorth's evolving understanding of their valuation process and incorporated new findings into our Airtable solution often. Our decision to utilize Airtable—a user-friendly platform with built-in survey, database, and automation capabilities—ensured the solution remained maintainable and transparent for a non-technical audience. We also leveraged a modular design for our automations and database tables, which simplifies future modifications and scaling.

Intermediate Outcomes

By mid-semester, we had established a fully functioning data collection and scoring prototype, allowing BrandWorth to preview the core mechanics of the valuation process in a semi-automated system. This early milestone allowed them to validate our progress and solution, and they helped contribute feedback to refine the scoring logic and survey design. Additionally, we developed a formal data flow diagram and documentation to clarify the relationship between data inputs, automations, and final outputs. This allowed both us and BrandWorth to understand all the necessary inputs and how to collect them for the brand valuation calculation.

Project Impact

Our work significantly enhanced the operational efficiency and clarity of the brand valuation process. The manual system, previously reliant on unstructured spreadsheets and subjective calculations, was transformed into a standardized, automatic process. BrandWorth now possesses a clear and replicable process for collecting, normalizing, and calculating brand strength scores and brand financial values. This shift not only improves data accuracy and processing time but also prepares the organization to scale up, reduces dependency on any single team member, and lays the foundation for future software as a service development.

Technology

Airtable Database

We created a database solution for BrandWorth to streamline their data collection and storage process, while being able to automate algorithm calculations to find the monetary value of client companies.

Our Airtable Database consists of 5 tables:

1. Clients Database: This table stores all the main, central information that we want to store for each client.
2. Evaluation Database: This table houses raw client responses from the evaluation survey.
3. Financial Database: This table contains the collection of three years of EBITDA, Net Sales, and Operating Profit Margin data of a client company.
4. Normalized Evaluation Database: This table mirrors the same columns in the Evaluation Database, but all the binary and multi-select responses are converted into a weighted numeric score. The scoring rubric for each response and each question was provided by BrandWorth.
5. DealStats Database: This table stores financial metrics of companies in the same industry as the client company.

Airtable Surveys

Each of the tables in the database, except for the Normalized Evaluation Database, correlates to an Airtable form, which acts as a survey. Upon submission of each corresponding survey, the submission will be stored as a new record in the database. For example, a submission to the following form would result in a new record storing the survey inputs:

Evaluation Database

mhi@andrew.cmu.edu [Switch account](#)

Primary Question 1

Company Name

Do you think of your company as a brand?

Primary Question 2

Does your company have a value proposition?

Scoring Automations

Not only did we create technology for data collection and data storage, but our project also automates many of its internal processes.

The scoring automations that we created take care of the normalization process, in which the Evaluation Database survey inputs are converted into a weighted numeric score. All questions in

the Evaluation Database survey are of binary (Yes/No) or multi-select type, requiring a score conversion for each question.

For visual reference, if a survey submission for the Evaluation Database form looked like this:

☒ Do you think of your company as a brand?? Yes

☒ (If yes) What do you think your company's brand consists of? (Multi-select)
 Name, Logo and Tagline
Marketing Activities
HR, Corporate Culture, and Training
Strategic Management Decisions
Marketplace Perception
+

☒ Does your company have a value proposition? Yes

☒ (If YES) Does your value proposition guide your marketing efforts? Yes

☒ (If YES) Who developed your value proposition? (multi-select)
 Owner/CEO
Sales Department
Internal Marketing Staff
External Agency
+

☒ (If YES) Was your value proposition updated within the
 Yes

Then, the corresponding Normalized Evaluation Database record would look like this:

# Do you think of your company as a brand?	2.0
# (If yes) What do you think your company's brand consists of? (Multi-select)	2.5
# Does your company have a value proposition?	15.0
# (If YES) Does your value proposition guide your marketing efforts?	10.0
# (If YES) Who developed your value proposition? (multi-select)	7.0
# (If YES) Was your value proposition updated within the last five years?	3.0

We used the Airtable scripting feature in our automations, which was especially useful if a question had a dependence on the response to another question. We were able to group the responses into 45 automations based on the primary, non-dependent questions. The secondary questions fall within the same automation. We used [this spreadsheet](#) as a reference for this technology outcome.

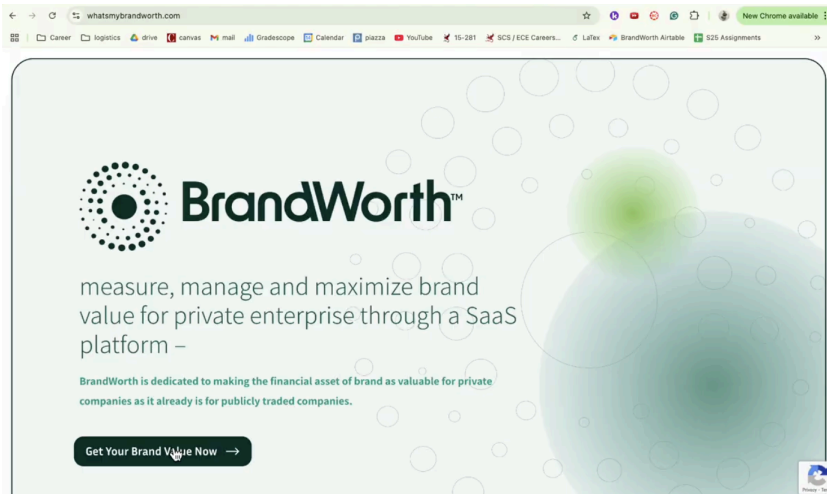
As a result of our scoring automations, when the evaluation survey is completed, the normalized evaluation database is populated with the correct scores for each response. The scores are then summed to form the Brand Strength Score in the normalized database.

Workflow

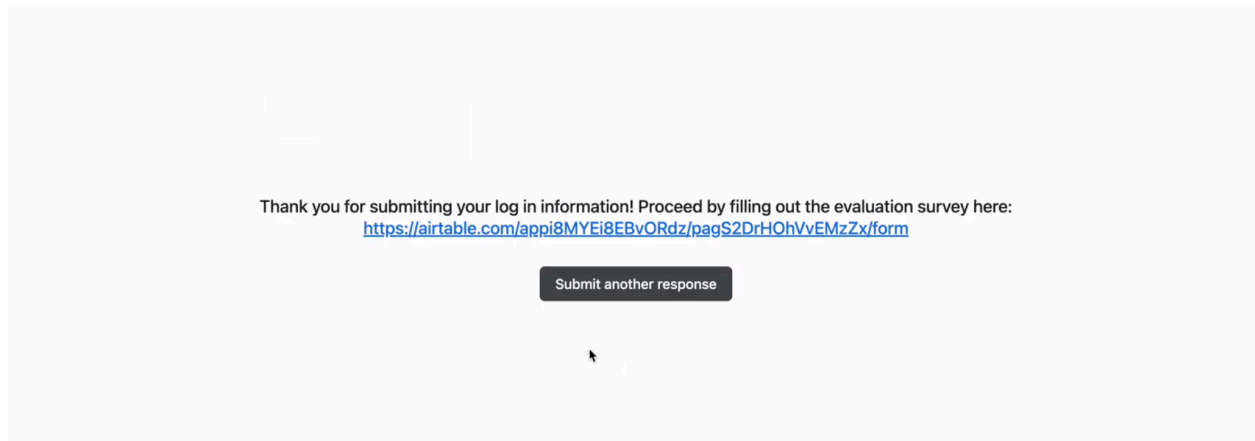
To create a full and comprehensive flow from survey to survey, we designed our surveys to lead the client to the next one they should fill out as they complete them.

Client Side

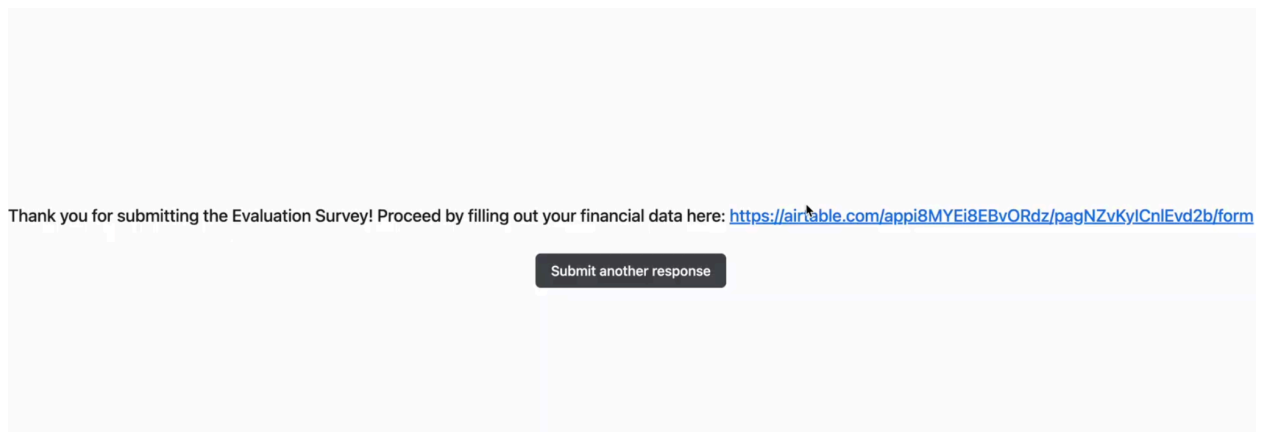
We start with a 'Get Your Brand Value Now' button on the BrandWorth website that will lead the client to the Client Database survey form.



Completing the Client Database survey will lead to this page, which guides the client to fill out the Evaluation Database survey.



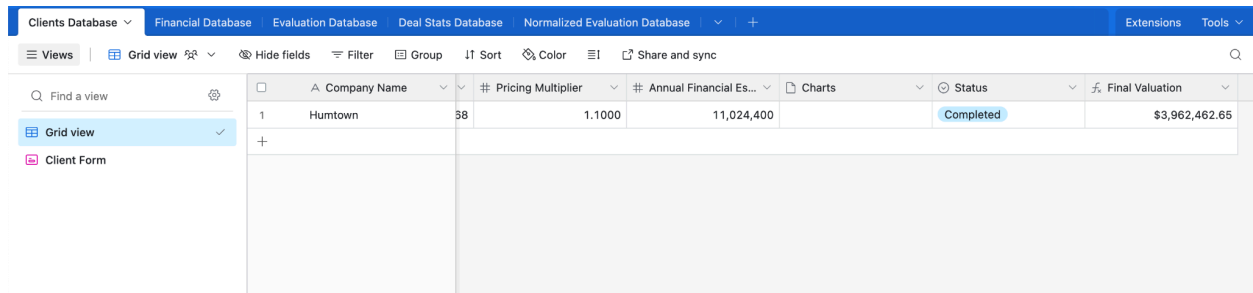
Completing the Evaluation Database survey will lead to this page, which guides the client to fill out the Financial Database survey:



BrandWorth Side:

BrandWorth would fill out the DealStats Database survey on their own time.

Once all survey inputs have been completed, they would manually change both the ‘BSS Status’ and ‘Status’ columns in the Clients Database to ‘Completed’ to trigger the calculations for the final Brand Strength Score, final valuation, and the email automation, which we cover in the next section.



The screenshot shows the BrandWorth application interface. At the top, there are tabs for 'Clients Database', 'Financial Database', 'Evaluation Database', 'Deal Stats Database', and 'Normalized Evaluation Database'. Below the tabs, there is a 'Views' section with 'Grid view' selected. The main table displays data for 'Humtown' with the following values:

	Company Name	Pricing Multiplier	Annual Financial Es...	Status	Final Valuation
1	Humtown	38	1,1000	11,024,400	Completed
					\$3,962,462.65

Email Automation

We created an automation that would send the results of our valuation algorithm calculations to the client in email form.

When BrandWorth changes ‘Status’ to “Completed” after all surveys have been completed by both the client and BrandWorth, the following email would be sent:

Hello Valued Client,

Thank you for answering the surveys to help us identify the strength and value of your brand. We have provided our analysis below:

Brand Strength Score: ‘BSS’ from the *Client Database*

Final Valuation: ‘Final Valuation’ from the *Client Database*

BrandWorth is here to help you improve this score so you can become a top competitor in your industry. Contact us about our services and pricing plan, and you could be our next successful client.

Best Wishes,

The BrandWorth Team

Testing with Humtown Data

We performed a comprehensive end-to-end test with data from the previous client company, Humtown, for whom BrandWorth had performed the valuation process manually. By inputting

the same data points that were used during the previous manual process, we were able to compare our final Brand Strength Score and final calculated monetary value of Humtown's brand with their original process that our prototype mimics.

Throughout the semester, BrandWorth repeatedly relayed that certain aspects of the valuation process involve subjective judgment and are more arbitrary, making it difficult, at times, to capture the process in strict algorithm calculations. As a result, the BrandWorth team agreed that the comparisons between the initial Humtown valuation and the outputs of our prototype were not expected to be exact. However, they were very closely aligned, which demonstrated that our prototype was able to produce comparably consistent results.

Project Deliverables

Airtable Database

Link to Airtable:

https://airtable.com/invite/l?inviteId=invYc4MTCB53AVT4E&inviteToken=57af66684e5c1ccc441b5fb530fbb14eea4b145515b84ebfacfa591949175d63&utm_medium=email&utm_source=product_team&utm_content=transactional-alerts

This is our ultimate solution, containing the databases of DealStats, financial, and evaluation survey data. It contains the surveys to collect necessary information for the brand valuation process. It converts the qualitative data from the evaluation survey into numeric scores and combines these numbers with the Dealstats and financial information to calculate the ultimate Brand Strength Score and brand financial value.

Airtable Documentation

Link to Documentation:

https://docs.google.com/document/d/1cy-KpZUmymWrH_uf7cj40GjPh3ktYvTKg_kPEad4Esc/edit?usp=sharing

For our Airtable solution, we created thorough documentation on how Airtable works, the purpose of our database setup, how the forms work, and how the automations that convert survey answers into numeric scores work. This ensures that, after the end of our project, BrandWorth still understands how the Airtable solution works and how to recreate our work. From this understanding, they can hopefully enhance the solution to better fit their business needs in the future.

Data Flow Diagram

Link to Diagram:

https://drive.google.com/file/d/1j__qnIE3slkYEIMnpI_2zQbzghICC8oJ/view?usp=sharing

For BrandWorth to understand where all the data they use for their brand calculations is coming from, we created a data flow diagram. This data flow diagram was helpful for both us and BrandWorth and ultimately benefited us in the database creation process. It helped us understand all the entities and data we needed to perform the final brand score calculations.

Demo Videos

Link to Demo:

https://docs.google.com/document/d/1fwVptaGiBIg1XAFuJZPWCMl43Ax_mK1J4Dt9KqlWFmI/edit?usp=sharing

This demo provides BrandWorth with a walkthrough of how clients and BrandWorth themselves will interact with the Airtable forms, and how it will perform the brand valuation calculations automatically and send results to the client through email. It allows BrandWorth to visualize what our solution does in a realistic setting and is also an easier portrayal of our solution beyond just the documentation.

Final Report

This report itself is a deliverable to our client and contains key information about our project and what goals we aimed to achieve with it. It also explains in depth how the technology works in the context of the brand valuation process.

GitHub Repository

Link to Repository:

https://github.com/JorgeGraciaViveros/67373_BrandWorth?tab=readme-ov-file

This repository contains all of the deliverables above, excluding the airtable database itself, in one convenient, easy-to-access place. It allows for BrandWorth to easily refer to necessary documentation on our solution and project plan in the future in one centralized repository.

Figma Prototype

Link to Prototype:

<https://www.figma.com/proto/iJVk9xQM1pv2BrrPWS8YHP/BrandWorth-Website-Mock-Up?node-id=1-5&starting-point-node-id=1%3A5&t=KQ7hBIvqjHRdmxVS-1>

This prototype shows the flow of how we want our solution to integrate with the existing BrandWorth website and also how the email automation would fit into the user experience flow.

Recommendations

As BrandWorth looks to scale its branding and valuation services, we recommend a series of different actions that will help ensure long-term sustainability, improved data security, and greater system flexibility. Our recommendations revolve around 3 core priorities such as transitioning from Airtable to a scalable database infrastructure, formalizing technical ownership within the organization, and also building for extensibility beyond the beta solution.

1. Transition to a Scalable, Secure Database Infrastructure

Although Airtable was a strategic choice for this prototype due to its ease of use and minimal technical overhead, it is not a long-term enterprise-grade solution. As BrandWorth begins to onboard more clients and collect more sensitive financial data, we recommend that they transition to a more cloud-based relational database such as PostgreSQL, MySQL, or a Firebase backend. These platforms offer enhanced security features such as user role access and encryption, as well as scalability for larger datasets and smoother integration into SaaS tools.

Hence, below is a path we would recommend, though not limited to:

- Begin by modeling the current Airtable schema into an Entity Relationship Diagram.
- Hire or consult with a part-time technical expert to work alongside Jarred to assist in migrating the current Airtable tables into a managed cloud database. This developer should ideally be familiar with cloud computing and system design.
- Implement user authentication and access control, especially if multiple team members or clients will interact with the system in the future.
- Lastly, replace Airtable forms with secure, front-end data collection forms. This could include React with Firebase, or Google Cloud Forms with Firestore integration, once the backend is migrated.

2. Maintain and Expand Technical Ownership

Throughout our engagement, we identified that BrandWorth lacked an internal, full-time technical owner. While Jarred has supported implementation conversations and joined the team recently, long-term sustainability will require the designation of a dedicated technology lead or partner. Here are a few things that the person should manage:

- Documentation and updates to the scoring logic and valuation algorithms
- Maintenance and auditing of automations, especially those that affect financial calculations or email delivery
- Overseeing future transitions to production systems
- Training additional staff or onboarding future consultants

In essence, if there were to be changes made to BrandWorth's BSS process, we recommend documenting all technical workflows, including scoring rules, multiplier logic, and automation triggers, in a centralized Notion or Google Docs site for future reference.

3. Prepare for Future Productization and Client Scaling

As BrandWorth grows, we believe the Airtable prototype should serve as the basis for the minimally viable product that can be offered to clients as a white-labeled or branded valuation platform. To support this, we suggest:

- Consider integrating third-party financial data providers to replace manual entry of industry benchmarks. Ideally, this can be done with a DealStats API access when licensing is available.
- Expand the email automation into a client-facing dashboard where companies can log in and view past reports, their Brand Strength Index (BSI), and recommended action plans, all in a consolidated manner.
- Similarly to email automation, build an interface layer such as a React-based front end or Glide app over the future database to improve UX for non-technical internal users.
- Store multiple evaluations per client over time to allow trend analysis and deeper insights into brand development.

4. Backups and Data Redundancy

Lastly, because Airtable does not natively support automatic daily backups, we recommend setting up scheduled data exports into cloud storage. This can be done in several different ways, such as using Zapier. Having redundant copies of the Client Database, Evaluation Results, and Financial Inputs ensures resilience in the event of accidental deletion or subscription changes.

About the Team

Team Member Bios

Jorge Gracia: Served as lead technologist. He is a junior majoring in IS at CMU and will pursue a career in software engineering after graduation.

Mia Li: Contributed to systems design and quality assurance and served as our team lead. She is a junior majoring in IS plus Stat/ML and has interests in product management and technology strategy.

Saanika Chauk: Served as project manager and coordinator. She is a junior majoring in IS with a minor in CS, and is passionate about software engineering and product management.

Team Member Contributions

Jorge Gracia

- Created evaluation, Dealstats, and financial surveys
- Point of contact for the client and set up weekly meetings

Mia Li

- Researched how to create automations in Airtable
- Created 23 automations to convert survey results into numbers
- Created automation to email computed scores to the survey user
- Created automation to calculate the final brand valuation

Saanika Chauk

- Created 23 automations to convert survey results into numbers
- Created midterm and final presentation slides
- Created a Figma prototype of the solution

All Contributions

- Worked on weekly sprint reports
- Worked on written artifacts (report, proposal, documentation)
- Met weekly, once with the team, once with the client, and once with the professor advisor
- Tested that automatic score calculations produced the same results as manual, based on previous Humtown survey inputs
- Research Airtable
- Creation of final deliverables (certificate of completion, executive summary, etc.)

Appendices

Appendix A: Airtable Structure

- Database fields and relationships
 - **Client Database:** Acts as the central hub for all client records. It includes fields such as company name, email, NAICS code, BSS status, and final valuation. This table also stores the final results and triggers the email automation upon survey completion.
 - **Evaluation Database:** Captures raw client responses to the BrandMRI evaluation survey. These are primarily Yes/No and multi-select questions, structured to assess brand identity and strategy alignment.
 - **Normalized Evaluation Database:** Mirrors the Evaluation Database but stores the weighted numerical values for each response, based on a scoring rubric provided by BrandWorth. This table is populated via automation scripts and is used to calculate the Brand Strength Score (BSS).
 - **Financial Database:** Collects three years of financial data (Net Sales, EBITDA, Operating Profit Margin) from clients. It includes calculated fields such as estimated EBITDA and a financial value score used in the final brand valuation.
 - **DealStats Database:** Contains industry benchmark metrics like Gross Profit Margin, EBITDA Margin, and company age. These are translated into a DealStats Score, which maps to a pricing multiplier for valuation adjustments.

Appendix B: Scoring and Normalization Logic

- [Brand Strength Index Scoring Guide](#)

Appendix C: Final Presentation Slides

- [Slide deck from May 2 client delivery](#)

Appendix D: 67-373 Sprint Reports

- [Weekly Sprint Reports](#)

Appendix E: Air Table Documentation

- [Formal Air Table Documentation](#)