IT Strategic Assessment Report

4/20/20

Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Version** | **Description** | **Author** |
| 4/1/20 | 1.0 | Outline information | Joseph Eckl |
| 4/9/20 | 1.1 | Added prior knowledge |  |
| 4/17/20 | 1.2 | Added question info part 1 |  |
| 4/20/20 | 1.3 | Initial version |  |
| 4/22/20 | 2.0 | Elaboration |  |
| 4/24/20 | 2.1 | <current version, no information received from company> |  |

Table of Contents

1. Executive Summary 4

2. History and Purpose 4

2.1 History of MoDuet 4

2.2 Purpose of Moduet 5

3. Management and Business Processes 5

3.1 Management 5

3.2 Business Process 6

4. Current IT Environment 10

4.1 Hardware 10

4.2 Software 10

4.3 Staff IT Skills/Training 11

4.4 IT Budgeting and Spending 11

5. Envisioned IT Capabilities 12

5.1 Leadership’s Vision 12

5.2 Technology Issues 12

6. Closing the Gap 13

6.1 Recommendation 1 13

6.2 Recommendation 2 14

7. Conclusion 15

6.1 Breakdown 15

6.2 Takeaway 18

# Executive Summary

MoDuet is a small web development company specializing in creating and hosting custom-built websites for small businesses and organizations. MoDuet uses WordPress supplemented with a variety of paid and unpaid plugins as its main development tool and provides different levels of service in website hosting and website creation. The company consists of a handful of employees in an informal, matrix-like structure and works with a similarly informal communication and controls system. MoDuet has been operating under a precedent of slow, procedural growth, but this philosophy may change given the current increase in demand due to the current global epidemic. MoDuet has been inundated with work from customers that suddenly find themselves in need of a website to maintain some level of business functionality during this crisis. This demand increase may spur MoDuet to take steps forward in expanding their workforce, an advancement that should be made with due consideration to their previous strategic business position.

# History and Purpose

# 2.1 History of MoDuet

MoDuet was launched in 2012 by Aaron Bacon. It began as a small, independent startup and remains so today. The company has remained in Louisville since its outset. As of mid-2019, MoDuet was located downtown at 5th and Market, as they held a close working relationship with Insider Louisville at the time. Following Insider Louisville’s closure in August of 2019, MoDuet relocated to join the assortment of companies based out of the Broadway co-working space Launch Louisville near NuLu. Other relocation options are being considered given recent events as of the writing of this report. MoDuet is currently operating remotely. Aaron previously considered this option before settling on the move to Launch Louisville. Depending on its success, working remotely may become MoDuet’s preferred method of work.

# 2.1 Purpose of MoDuet

MoDuet began with a focus on establishing relationships with clients seeking an improved website management experience. Soon afterwards, MoDuet began using WordPress as its main tool for website creation and content management. MoDuet has trialed a number of other content management systems, but has settled on WordPress, as they find it easiest for their clients to work with. While they have expanded their services to encompass building, hosting, and managing websites and have grown their set of clients, MoDuet’s core purpose remains the same today. Their clients consist mostly of similarly sized or smaller companies and local organizations. MoDuet distinguishes themselves with responsive, personal communication that lends itself to local small business. They continue to use WordPress for websites and have begun to develop mobile apps as well. They interact closely with their clients to develop, improve, maintain, and host custom websites.

# Management and Business Processes

# 3.1 Management

MoDuet is managed by its CEO and founder, Aaron Bacon. It must be stressed that MoDuet is an extremely small company. Other than Aaron, MoDuet has only one other permanent employee, graphic designer Patricia F. The remainder of MoDuet’s workforce is comprised of part-time co-op students from local universities, including the University of Louisville, Spalding University, and Jefferson County Technical College. MoDuet usually employs two to three of these interns at a time. Interns typically work two to four days per week, three to six hours per day.

Aaron conducts the work on the IT side of the business in addition to several other primary business functions. He contacts and interacts with clients, manages the sites’ backend services, makes frontend changes to sites’ content and design, meets in person with clients, selects interns to hire, and assigns work to interns. Patricia handles the other aspects of the business. Her main focus is graphic design. She creates logos, backgrounds, design specification documents, and other visual assets for websites based on client requests. She also manages the company’s finances, schedules appointments and meetings, keeps workflow organized, and takes over management duties in Aaron’s absence. Interns are assigned work that typically falls into one of two categories: major development work on the current most important projects, or a large volume of smaller tasks across many lower priority projects.

Project management is an ad hoc affair. Requests from clients are processed first come, first serve. Priority is given to urgent changes, larger changes on larger sites, then to various smaller edits. More involved tasks, such as database modifications, functional file structure, or PHP changes are taken up by Aaron. All graphics work goes to Patricia, who also keeps track of the progress on the larger projects. HTML and CSS edits, design changes, and content management tasks are sent to the interns in batches through email. Completion of tasks is delivered to Aaron in person for evaluation. Aaron keeps track with a notepad. Project management software (Asana, Freedcamp) has been trialed but not adopted. Employees found that maintaining project management software for so many small, unpredictable changes to be overly tedious.

**3.2 Business Processes**

Nearly all of MoDuet’s work falls into three main categories: hosting, website creation, and content management. MoDuet offers two sets of services, each with three tiers. Prices are paid monthly. Additionally, these prices are flexible and can be negotiated if a client’s needs fall between the bounds of different plans. Discounts are also offered periodiacally.

|  |  |  |  |
| --- | --- | --- | --- |
| Hosting | Personal  $35 | Business  $75 | Enterprise  $199 |
| Hosting + New Website | Personal  $99 | Business  $199 | Enterprise  $299 |

MoDuet’s base level service is website hosting. If a client already has a WordPress site built, MoDuet can provide server space, SSL certification, and automatic updates along with customer service that will get you in contact or on the phone with someone who knows what they’re doing in a timely manner, that person being Aaron. This is the base plan offered under Personal Hosting. This plan also serves as a step down to from the Personal New Website plan after an allotted period of time. Websites that use this plan are usually informational sites for individuals or small organizations. These sites typically remain static for long periods of time without updates. Examples would be a personal professional portfolio or a website for a local tourist attraction.

If a client already has a website online with another hosting provider and wishes to change providers for whatever reason, MoDuet can provide site migration, including changes to bring the site up to date and make it compatible with MoDuet’s current software environment. After migrating the website, MoDuet leaves the client to operate and make content updates to the website on their own. This plan serves clients larger than what a personal plan would cover but are smaller than an enterprise business. The Louisville Cardinal student newspaper uses MoDuet to host their website.

Furthermore, MoDuet provides domain registration and content maintenance for clients in further need. Many of MoDuet’s clients have little to nothing in the way of an IT division, or in other cases, don’t have the technical expertise to make changes to their website on their own. Clients that use the Enterprise Hosting plan have a need for regular updates, have commissioned their website from a third party, and have moved to work with MoDuet. Content maintenance is included in this plan.

Content maintenance comprises a large portion of MoDuet’s workload. Content management can range from small design adjustments to large scale additions of content. Adding an image and description for a new council member of an arts board, linking to new PDFs in the site’s database, updating dates for relevance, adding sections to page of upcoming events, changing typefaces and theme colors, adding new plugins and widgets for requested features, organizing pages, adding albums and carousels for images, and restructuring menus are all examples of common content management tasks. The tasks are consistent in nature but vary mostly on scale.

The other main portion of MoDuet’s work is creation of new websites. This process is intricate and involves everyone. After initially establishing contact with the client, outlining their needs, and agreeing to take on a project for the client, a design meeting is held, typically over the phone. Aaron and the client are the main participants while the interns listen in and contribute when necessary. With design requirements established, Aaron, Patricia, and the interns come up with a basic design for the website and plan to implement it using tools according to the client’s agreed upon payment plan. For larger, more professional clients with greater design needs, assets and templates from paid libraries are used. For smaller clients, less capable, but free elements will be used to keep the client’s plan affordable.

After creating a design framework with sample content, another meeting is held with the client for feedback. If the client is not satisfied, feedback is gathered, and the design is taken back to the drawing board. If the client approves of the site’s first draft, MoDuet will begin importing the client’s content to the new site. This content may be copied directly from the client’s old site or newly provided from the client if they are seeking a complete refresh. From this point, work becomes an iterative process of client request, adjustment, and feedback until the client believes their needs have been sufficiently met.

If at any point during this process the client becomes too difficult to work with, overly demanding for what they agreed to pay, or behave in a rude or unprofessional way, MoDuet will cease the working agreement and ask the client to take their business elsewhere. Occurrences of this are rare, but they do happen. Any designs or in-progress implementation left unused is saved for later.

After the site is initially built, work typically falls to a level of occasional updates to content. However, for the largest clients, changes continue to come in on a regular basis as management and departments request various changes. On occasion, if a larger client has an IT staff, MoDuet will collaborate with them to make significant backend changes, such as database migration, go over more smoothly. However, situations like this are rare, and most interactions with clients are cases of standard users asking if a certain change is possible. In these cases, MoDuet stresses patient and responsive customer service, which makes the client more likely to remain a customer and promote MoDuet to other potential clients.

# Current IT Environment

**4.1 Hardware**

MoDuet as a company possesses no hardware of its own. With a maximum of two to five people working at any given time and presence in a coworking space, MoDuet operates entirely in a bring your own device context. Each individual has a laptop to work with. Aaron and Patricia prefer to use Macs for design software purposes, but the interns use PCs. The specifications of the devices are not of particular importance. MoDuet’s main storage space is in the cloud and its development environment is SaaS based. The requirements of the device are simply the ability to connect to the internet and the processing capacity to handle work productively.

**4.2 Software**

In contrast, MoDuet uses a great deal of software. It can all be accessed online, with the exception of the Adobe Creative Cloud software installed on Patricia’s computer for graphic design. At the broadest level, InfiniteWP is used to manage sites. This software serves as an administration hub for accessing and updating different sites. Plugins across all sites are updated daily using this.

Moving to an individual site level, cPanel provides more in-depth admin control. Various server-side functions, such as security certifications, database management, and automatic backups, are available here. Each site is stored as its own folder, inside which is the WordPress installation, which is where the majority of the work takes place.

The WordPress folder is a standard installation that is then customized with plugins to the client’s needs. The Avada asset library is used to create sleek professional designs from pre-formatted templates. Fusion Builder integrates with Avada to create a visual interface of content blocks supported by a wide array of menus that adjust CSS without having to rummage through code. Various plugins for forms, image sliders, payment processing, user creation, email integration, and advertisements can be added as needed. Paid premium plugins are used when a site necessitates plugin cross-functionality. For sites using cheaper plans, free versions of alternative plugins are used.

**4.3 Staff IT Skills/Training**

Staff IT skills are geared entirely to web development. Aaron graduated from Indiana University and has 15 years of experience working in the field. Patricia has a degree in graphic design. Interns are required to be juniors or seniors with a major in web development or CIS. Experience with HTML and CSS is required, and experience with programming is strongly recommended. In their first week, interns are encouraged to familiarize themselves with WordPress and the company’s WordPress environment. MoDuet encourages a learning environment. Interns are given a variety of tasks with an increasing level of responsibility. Team meetings are called once or twice per week to catch the interns up to speed on the current assignment.

**4.4 IT Budgeting and Spending**

As of version 2.0 of this report, MoDuet has yet to provide any formal documentation related to finances. An estimation of software cost comes to roughly $1500 per year. InfiniteWP costs approximately $650 per year. Avada and Fusion builder cost $60 per year. Most plugin packs cost $20 to $40 per year. Other costs are unknown.

# Envisioned IT Capabilities

**5.1 Leadership’s Vision**

MoDuet’s plan for the future has been conservative: keep doing what we’ve been doing and see where it takes us. Let the word spread and reach out to new clients by recommendations from mutual connections. Maintain a slow and steady growth with respect to the main goal of increasing the client base. MoDuet has recently ventured into the field of mobile applications. MoDuet finds that more of its clients are interested in providing services that are currently on their website in the form of an app. Currently, this focus is centered around the larger clients that would have feasible and reasonable use for an app, i.e. healthcare providers that require accounts for personalized service. For other clients without practical use for an app, MoDuet focuses on the websites’ mobile functionality.

This growth philosophy has been challenged by the conditions of the global epidemic. Small businesses with no prior presence on the web are now in need of websites and storefronts to remain in operation. A family owned store that normally did business in person could now use a system for processing online orders and shipping them out instead. A local restaurant with new curbside service could use a site to formally provide details and directions. Businesses of all types could use either a new website or more frequent content management services. With this sudden increase in demand, MoDuet may find itself rushing through several steps of growth. How well they handle this will determine if they come out for better or for worse.

**5.2 Technology Issues**

The main technology issue that MoDuet consistently runs into is one of compatibility. Sites that are migrated to MoDuet frequently come in unfamiliar forms. Large sites that have been mismanaged can contain dead links, duplicate pages, and pages and files that can no longer be found, which creates performance issues and longer loading times for the site. Small sites that have been built with do it yourself online tools such as Wix tend not to cooperate well when introduced to a WordPress environment, which makes large content additions difficult in the future. Other websites are simply old, outdated, and insecure. In some cases, the current site can be moved over with some behind the scenes changes to WordPress settings. This is often the case with websites that were previously built using WordPress.

If compatibility issues still exist, an assortment of plugins can be used to scan the site internally for issues which can then be fixed. In other cases, the design of the site either cannot be saved or isn’t worth saving. Here, the content is gathered up and ported to a new site with a new design and similar layout. In rare cases, an entirely new site is built up from scratch. All of these changes are done in a sandbox that is not connected to the live website. The sandbox of each site is backed up daily.

# Closing the Gap

The main issue that MoDuet faces is expansion. After several years of consistent growth, MoDuet has reached the point where it’s looking to move upward in addition to the outward expansion it has experienced so far.

**6.1 Recommendation 1**

Network and incentivize. MoDuet needs to get their name on a larger map in order to grow. What MoDuet could use is a deal with a client that has name recognition and the ability to spread the word to others. A potential option could be a local distillery. Create a quality site for a smaller company or an individual in a communications or marketing position and incentivize them to spread the word about MoDuet. Distilleries have name recognition and many connections in the area. Not only do they have connections to other liquor businesses, but restaurants and the tourism industry. Currently, MoDuet is relying heavily on word of mouth to promote themselves. For MoDuet’s plan for slow and steady growth, but there are opportunities to spread the word strategically. This also adheres to MoDuet’s preference to avoid running advertisements. With a key client and a well-timed promotion to incentivize recommending MoDuet to others, MoDuet could see its client base grow vertically to larger clients in addition to an increase in its current horizontal growth.

**6.2 Recommendation 2**

Increase workforce. In the 8 years MoDuet has been operating, only one new full-time employee has been added. Business has continued to grow, and MoDuet has occasionally run into situations where a client can’t be taken on because there is too much work going on with another client at the time. If MoDuet continues to grow outward, and especially if MoDuet experiences a spike in vertical growth, having a third dedicated employee could free up time for taking on new clients. A developer consistently churning through design tweaks and content edits would leave more time to contact, meet with, and negotiate with clients. Smaller projects could be tackled alone by the secondary developer, freeing up resources for more lucrative ventures.

Another possible way for MoDuet to expand its permanent workforce is to look into a project manager position. Someone to take the organizing burden away from the developers would allow for more focused work efforts and better tracking of requests from clients, which normally come in one at a time as one-line emails.

Amidst the current global epidemic, MoDuet has been inundated with incoming communication, requests for edits, and an increased need to integrate new features into sites whose organizations previously had no need to focus on the capability of their website. Another employee could help cut through the volume of smaller tasks and leave more time for communication with clients that need more involved assistance.

Another matter to be addressed is the internship agreement. MoDuet’s interns are unpaid. There are several reasons for this. MoDuet is a much, much smaller company than others offering co-op opportunities to college students. Co-ops at MoDuet are by no means full-time positions. They function more like practical coursework than ‘proper’ jobs given the number of hours and volume of work. For interns, work is done when leaving the workplace, which cannot be said for Aaron and Patricia.

However, unpaid internships are controversial at best. With continual growth, MoDuet will soon find itself in a position where they have no reason not to pay for their co-ops. MoDuet should seriously consider offering interns pay, especially if they plan on hiring more permanent staff soon.

# Conclusions

**7.1 Breakdown**

1. **Environment and Strategy**

MoDuet uses a differentiation strategy, highlighting customer service and client interaction. It promotes its ability rather than offering cost leadership prices.

Competition presents a high level of threat. Many companies of the same size and larger make custom websites. MoDuet must keep its performance up to attract new users and retain current ones. Establishing a reputation of quality is valuable.

New entrants present a high level of threat as well. Anyone just like Aaron could start up the next MoDuet and start doing the exact same thing. MoDuet stand to benefit from making a name for itself in the community as one of the best small places to go for a website.

Substitutes present a moderate to high threat. Services like Wix, Squarespace, and others offer the same product up front: an easy way to create and maintain your own website. On one hand, younger people with a decent amount of technical knowledge could set up a site for themselves. However, small businesses and older customers without the technical aptitude for these online services would rather pass off the task to someone who either has more time than them or knows what they’re doing to a greater degree.

Suppliers present no real threat, as MoDuet essentially has no suppliers. Their main purchases are software and server space. The supplier of their workspace, Launch Louisville, could have some sway over them, but the two companies’ relationship is on good terms. Also, as the working conditions of the virus epidemic have shown, working remotely is a viable option.

Customers, however, do present a significant threat. Bargaining power of the customer is relatively high, given that they control who will get their business in this case. This is offset by the fact that because customers pay in part up front, they are inclined to not ‘waste their money’ by switching. The switching cost for the customer is also relatively low, but also depends on the technical knowledge of the customer themselves and how much trouble they would find themselves willing to put up with to move websites or commission a new one. Customer satisfaction at MoDuet is regarded well.

1. **Structure and Controls**

MoDuet operates using a tiny matrix structure. There are two main functional areas: development and graphic design (which includes most of the other company ‘departments’). Aaron heads up the structure, with the interns below him, and Patricia to the side. The structure completes into a triangle, as the interns work with Patricia for graphics depending on the project. The structure is quite informal as are working conditions. Everyone works together in the same area and asks questions or communicates information as needed. Files and client requests are sent through email and Google Drive. Sites can be accessed through InfiniteWP.

Controls in the workflow follow suit. Aside from authentication for the sites and management dashboard, there are practically no formal controls. Interns are trusted to show up at their usual times and to send a message if something comes up. To check if someone is working, just look over and see if they’re working. To ask what needs to be done next, just ask. If someone is on the phone with a client, it is perfectly acceptable to find a way to burn a few minutes. The downside to this casual system is that there is also no hard evidence of improvement. Aside from search engine optimization numbers, there is no objective way of measuring improvement. Financial information would be an indicator of growth, but that information hasn’t been supplied here.

1. **Internet Enabled Business Model**

MoDuet isn’t so much an internet enabled business model as it is an internet business model. The internet is their business, so the concepts of IEBM apply more strictly. The complementary assets model is of note here. MoDuet falls somewhere near the middle of the run quadrant of the chart. Websites are fairly highly imitable as far as software goes. The assets MoDuet uses are quite freely available. Anyone with a need for the assets provided by other companies, such as Avada themes and Fusion Builder, can just buy them. However, graphics assets are designed inside the company and tightly held. This provides some barrier to entry for potential competitors. Another developer without graphic design knowledge would be put at a disadvantage.

In the run category, MoDuet is pushed to stay up to date on recent developments in the web design and development community. This can lead to increased technological stress, which does have an effect on Aaron and Patricia that bleeds over into life outside of work.

**7.2 Takeaway**

With nothing more than personal experience, it’s hard to make a definite judgement on what MoDuet should do next. MoDuet has been geared toward expansion at a slow rate, which has been successful so far. However, with a sudden uptick in demand due to the sudden change in the environment means that MoDuet will get a feel for the possibility of more widespread growth. The business’s informal structure, controls, and measurements of improvement have serviced their needs so far, but it would be wise to check the numbers, consider more formal, standardized practices, consider hiring more employees, and develop a plan to market themselves more openly in an effort to step up a level.