

Thawrih Consulting Report



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Prepared For:



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Prepared By:

Santiago Acevedo Valencia, 7764494
Laura Bacic, 7674439
Ankica Basar, 7342324
David Lebel, 8326821
Julie Trupiano, 300103453
Devon Upton, 8270818

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Executive Summary

Thawrih is a recently established social enterprise that launched in October of 2017 through entrepreneurial efforts. The company makes modest headgear and activewear apparel. The company prides itself on the social aspect of its business, hiring newcomers to make their products from the comfort of their home.

As operations have grown, production inefficiencies have exacerbated. Today, Thawrih is struggling to manage efficient daily operations, order processing, inventory management, and internal communications. These challenges are due in large part to several reasons. First, the management team lacks previous industry experience in the apparel industry. Secondly, a decentralized production model creates communication and inventory management bottlenecks. Thirdly, a small claims court lawsuit has stressed short-term organizational resources. Finally, the social focus of the enterprise has constrained operational flexibilities.

Thawrih has three production options to improve their scalability: centralize production in Ottawa, maintain the status quo of decentralization, or outsource production. Although centralizing production would increase productivity through efficiency gains, it would be too resource intensive at this stage since cash flows remain limited and the brand is still relatively new. Outsourcing production would maintain low overhead costs but require the up-front costs of ordering thousands of units at once with larger lead time. More importantly, this model would lead to a likely loss of the enterprise's social aspect. This led to the conclusion that keeping production decentralized was the most feasible option given the company's social initiative for the short-to-midterm. This option allows for newcomers to continue working from home, thus keeping their jobs convenient and maximizing work-life balance. However, this would create more work for the owners to manage inventories, supplies, and communications. Keeping production decentralized is a short-term solution until Thawrih reaches a larger size, is able to maintain its social focus sustainable, and is financially able to pursue one of the other options for its headwear production.

In maintaining the current production system, Thawrih will have to increase its productivity without overhauling its operations. With the proper implementation of an inventory management system like InFlow Thawrih will be able to create the foundation of new processes that will allow for efficient scaling under the decentralized model.

Needs Analysis and Documentation

Company Overview

Scaling production while expanding the business and maintaining the social aspect is Thawrih's primary goal. Currently, there is a need for Thawrih's products in both the domestic and international activewear marketplace that creates an opportunity for growth. Furthermore, the company has recently been penetrating the commercial marketplace with sales of hijabs and turbans to police departments. A demand increase can allow Thawrih to expand its workforce and have a greater social impact. The company has voiced its particular interest in expanding the workforce specifically in Ottawa and has an open dialogue with investors to have foreign direct investment in India.

Thawrih's current operational challenges are largely in part due to the newness of the company. Most deficiencies are likely to be resolved internally with the passage of time and the acquisition of additional talent. For now, production capabilities are limited and difficult to scale. This is largely due to the decentralized system that Thawrih follows. Some of the challenges associated with structure include the necessitation of the manual exchange of materials and finished units to and from individual households. This creates communication inefficiencies ultimately resulting in longer than opportune lead times. The most efficient form of production would be to centralize manufacturing in a factory setting or outsource production to a third party as is done with the lifestyle line.

The use of a unique waterproof material differentiates these product lines from traditional pieces. This is largely the reason why there has been a large appeal to the psychographic marketplace of active people. Furthermore, this material use is why organizations like the Halifax Police Department and others, have shown interest in testing uniform orders. Thawrih further differentiates as having a significant social component with products being made in Canada. This has resulted in the average price of headgear sold to be around \$30 as opposed to the general market rate of \$5. If Thawrih is able to reduce production costs than inventory can be sold with greater margins or lower prices.

Some of Thawrih's positive employment features such as employment from within the household will continue to be a challenge in maximizing productivity since Thawrih uses domestic sewing machines which are limited to fewer hours of production compared to industrial machines. Thawrih's competitors use advanced manufacturing lines that can produce 24/7. Newcomers are limited to the capacity of the domestic machines, which are prone to breakdown and overheating. For this reason, Thawrih is actively looking to introduce industrial machines to also boost productivity

Inventory levels are tracked manually and since finished units are stored within the cofounder's home, newcomers' homes, and at the Amazon warehouses it is difficult to keep levels up to date and accurate. There is an existing need for an efficient inventory management system.

Current Sustainability Challenge

The objective of this consulting report is to aid Thawrih by developing a business plan that overcomes the current sustainability challenge of production scalability. The recommendations improve each of the following key issues which contribute to the inability to scale operations:

1. Limited talent pool: As a social enterprise, the client was previously committed to only hiring Canadian newcomers, limiting the potential skill pool. These newcomers often had to be trained to use stitching equipment in accordance with the sewing methods relevant to different products.
2. Production inefficiencies: Thawrih's workforce consists of contract workers operating from their houses in both the Montreal and Ottawa region. Naturally, there are production inefficiencies surrounding this model including delivering materials and picking up finished products from workers.
3. Communication inefficiencies: With no formal order or inventory management system between Thawrih and its contractors, communicating production needed and allocating tasks to the different workers is a challenge. The current method is to communicate individually to all contractors through WhatsApp and to manage inventory on an excel sheet. This has led to issues such as an undersupply or oversupply of certain products.

External Benchmarking Report

Market Analysis and Industry Background

The number of Muslims globally spending on sports apparel and participating in sports is increasing, creating a need in a product segment that has previously been overlooked (Latif et al, 2016). In fact, spending within the Muslim Consumer clothing market spiked to \$243 billion dollars globally in 2015 and is forecasted to reach \$368 billion by 2021. It is crucial to note that “prior to 2015, Muslim consumers were a largely ignored segment in mass-market retail, especially men. The trend has since expanded to other retailers, which has helped normalize Islamic traditions” (Pasquarelli, 2018). The timing for Thawrih to enter the market is ideal. Seeing as the population representing Sikhs globally makes up of 27 million people, this market is smaller in comparison but largely overlooked.

This product insight shows that “ethnic wear held the dominant market share of over 70.9% in terms of revenue, in 2017. The demand for ethnic wear including Burqas and Hijabs is projected to witness significant growth owing to the increasing availability of products through various brands including Tommy Hilfiger, Dolce & Gabbana, and DKNY globally” (Islamic Clothing Market Size, Share & Trends Analysis Report, 2019). Although Thawrih also caters to men with turbans, sports headgear and a men's fashion line, the majority of the buying power in this niche segment is held by women as an estimated \$44 billion was spent on feminine modest sportswear in 2015. Thawrih's unique marketing advantages brings the brand greater value and flexibility that is largely rare in the industry. This new market avenue further caters to the increasing male demand

of this market, and promotes industry best practices for the Islamic economy role, as this enforces gender equality, provides economic growth and innovation within the modest apparel industry. Refer to Appendix B for more insight into the increasing trend in global muslim consumer market and the islamic economy role for best industry practices.

Current State

The underlooked male segment of the commercial market is key for Thawrih to break into if the company aims for a successful expansion. Recently, Thawrih has been in talks with police departments and the military as part of that male dominated market segment. Looking at Thawrih's sales for the four quarters of 2018 the largest sales figure is seen in the fourth quarter. Striking a deal with the Halifax police department is the reason for that spike in sales. Refer to Thawrih's sales figures in Appendix B, for full illustration of 2018 sales. The company will greatly benefit from focusing on that market.

Competitors



Modanisa is purposed as a large retailer that sells multiple brands. They are a virtualized brand and accessible through their website with orders delivered directly to the customer. Since its inception in 2011, Modanisa has expanded its product portfolio to include a variety of options from Islamic sportswear to shoes (Modanisa, 2019).



Asiya is a U.S. based company that is another sports and cultural attire competitor. They have many resemblances to Thawrih; however, their pricing is higher with fewer style options. Their business is formulated around different styling elements in hijabs with respect to varied modesties. To supplement sales, Asiya also offers customized stylings for sports teams. Asiya is an online business and market their products through social media (Asiya, 2019).



Capsters is one of the most successful brands in this niche market. This organization has been in operation since 2001 and has since developed partnerships with Shirzanan Global to support the empowerment of Muslim women. Capsters compliments its online sales with a physical presence through a series of local retailers. In addition, they designed the Capsters Football, which is a fully approved garment for football players which has been tested and certified for professional football associations (Capsters, 2019).

Lastly, the globally-known brand particularly for active style products, Nike. The brand has recently announced the Pro Hijab, a product developed with culture and an active lifestyle in mind.



While this is only one product and is targeted towards women, it shows that Nike is making a transition to include culturally oriented clothing for athletes and could be a bigger competitor in the future (Nike, 2019).

Each of these brands is summarized below to provide Thawrih with an understanding of its position relative to its competitors. A brand positioning matrix is illustrated in *Appendix A1*, which provides a comparison on competitor price and industry offerings.

<u>Brands</u>	<u>Strengths</u>	<u>Weaknesses</u>
Thawrih	<ul style="list-style-type: none"> • Social focus • High-quality • Homemade products 	<ul style="list-style-type: none"> • Younger brand • Narrow skill set • Limited assets and capital
Modanisa	<ul style="list-style-type: none"> • Large choice of products • Cheap products • Delivers worldwide (customers in 130 countries) 	<ul style="list-style-type: none"> • Complicated operations • Poorly designed website • Based out of North America
Asiya (<i>certainly the closest model to Thawrih</i>)	<ul style="list-style-type: none"> • Made in USA • High-quality products • Team uniform sales 	<ul style="list-style-type: none"> • Long and expensive shipping times • More expensive • No social focus
Capsters	<ul style="list-style-type: none"> • Designed Capsters Football officially approved by FIFA • Products for kids and swim sports • Customized products for each sport category 	<ul style="list-style-type: none"> • Only produces hijabs for females only • Outdated website • Higher price
Nike	<ul style="list-style-type: none"> • Well-known brand • Strong reputation • Delivers worldwide, accessible internationally 	<ul style="list-style-type: none"> • Higher price (\$10 more) • Depends on independent manufacturers for products

External Analysis

The external influence in the industry on Thawrih is illustrated in *Appendix A2* where Porter's 5 Forces are portrayed. The supplier perceived risk is high since Thawrih sources its unique lines from a single supplier in Italy. This reliance gives the supplier significant control for the pricing. The entry barriers for new market entrants is considerably high as the modest activewear segment is increasing in popularity with established brands like Nike expanding their portfolio of products to service cultural sports apparel. Furthermore, the associated costs when entering this market is relatively low in contrast to other segments making increasing competition more promising. The substitutes are low making it advantageous for Thawrih as customers have the alternative to wear traditional headgear or go to the competition which has a minimal appeal to the quality of clothing offered in comparison to Thawrih. The perceived buyer risk is moderate because of the low switching cost between different brands and the positive association with newcomers and various clothing options that Thawrih has. The competition is also considered to be a moderate risk because prominent competitors like Capsters, Asiya and Modanisa have higher pricing, are based in foreign nations increasing shipping and conversion costs, and have a limited social presence. Adversely, since Thawrih is a relatively new company in comparison, they have less industry experience and a smaller client bases. In addition, the competitors have more market reach giving them more sales diversity, . Thawrih, although expanding its lineup, has fewer offerings than competitors that have more products segments for customers to choose from. Moving forward, Thawrih is strongly encouraged to push into that male dominated market as mentioned earlier.

Relative Position by Best Practices

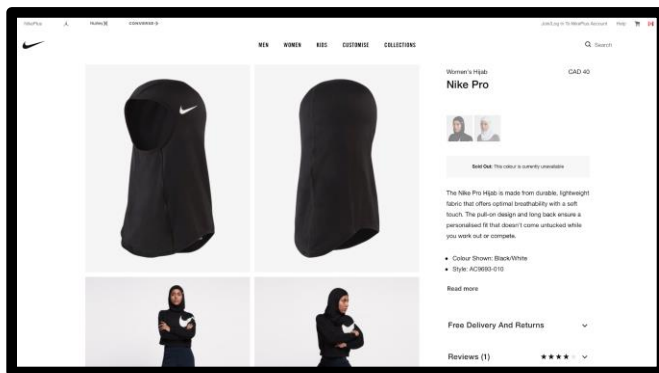
Thawrih's newness to market once again indicates its relative position to establish vendors. Although its production capabilities are significantly less than its competitors, Thawrih does compete with a relatively low absolute costs. This is possible since Thawrih has very limited fixed costs under its decentralized production model. It does not have a need to pay for overhead or employee benefits. Thus, Thawrih has a competitive advantage with a flexibility that its competitors with deep sunken costs do not have.

Thawrih falls behind the reach its competitors have across different markets. Thawrih has recently made efforts to diversify its points of sales to include Amazon and plans to have a limited physical presence from a soon-to-open yoga studio in Ottawa. Furthermore, Thawrih is aiming to expand geographically and fulfill new product segments such as California, its largest geographic market outside of Canada. Here they aim to solicit the Los Angeles Police Department to purchase Thawrih products as uniform parts such as turbans as the force has a large Sikh population. While expanding further within North America is important, the largest realizable markets remain overseas. While most of Thawrih's competitors have significant operations in Muslim majority

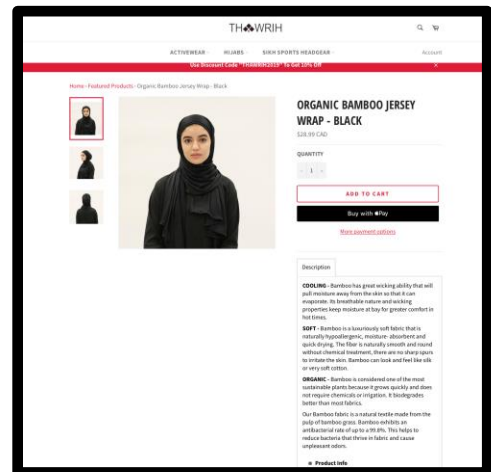
countries like Malaysia and Turkey, Thawrih has only just begun to penetrate Muslim majority markets such as the United Arab Emirates. Thawrih management has also recently began focusing on expansion into India to create a flanker company.

Apparel companies need attractive storefronts to create pleasurable shopping experiences. The maintenance of Thawrih's website is outsourced. From a design point, thawrih.com is modern, but has a large amount of visible white space compared to the professional and thought out website designs of its competitors. An obvious issue associated with the e-commerce platform has been in the area of post-purchase customer service. Unlike other e-tailers, Thawrih fails to offer free return shipping. This will likely lead to unsatisfactory feedback from clients seeking to return items.

An example depicted below illustrates Thawrih's online platform compared to competitor Nike. Thawrih has visible areas of blank space juxtaposed to Nike which showcases its design throughout the webpage while maintaining a minimalist appeal.



GAP



Analysis

In order to gain a deeper understanding of Thawrih's position in the market, we conducted a GAP analysis. Our analysis provides a comparison of Thawrih and their direct and indirect competitors and highlights the areas in which they have advantages and the areas where improvements need to be made. We looked at many different categories, including global rank for website traffic, visits per month, brand awareness, social impact, product price, and quality, company origin, and distribution channels. An explanation of each of these categories, as well as an analysis of each, can be found below. A table with company comparisons can be found in Appendix H.

Global Rank, Visits Per Month & Brand Awareness

Global Rank: This category compares Thawrih to its competitors in terms of worldwide website traffic. (i.e. the website with the most traffic in the world is google.com and is ranked #1)

Visits Per Month: This category is similar to the first one, but it just provides a numeric value of exactly the number of visits the websites get rather than their rank. (Data found on similarweb.com)

Brand Awareness: This category is based on the extent to which consumers are familiar with the brand and its distinctive qualities.

When comparing the amount of traffic that Thawrih and their competitors receive on their websites each month, it was evident that there is a large variation between the companies. Nike, for example, is the 525th most commonly visited website in the world receiving between 50 and 80 million website views per month (SimilarWeb, 2019). This gives Nike a huge advantage as their brand awareness is much higher than the other companies. However, Nike obviously sells a wide variety of products and their hijabs are not a main source of revenue. Modanisa has the second highest amount of website traffic among the analyzed competitors, with 10 to 15 million visitors per month, placing it within the top 7,000 websites in the world (SimilarWeb, 2019). This is much lower than Nike's reach and awareness, but still much higher than Thawrih, Asiya and Capsters. All three of these companies struggle with brand awareness and have very low levels of monthly traffic to their websites. In fact, they have so little traffic that there wasn't enough data provided for SimilarWeb to provide any statistics or reports. Thawrih's website ranks 4,481,287th in the world, with Asiya, and Capsters ranking 5,161,510th and 11,989,283rd respectively (SimilarWeb, 2019).

Social Impact

Social Impact: This category compares the effect that each company has on the well-being of the community.

Without a doubt, Thawrih has the most social impact within their business model compared to its competitors. This serves as one of Thawrih's biggest competitive advantages. Thawrih offers the first ever sports turban and their other products also help encourage physical activity among several cultures and religions that did not previously have access to the resources. Not only do their products represent something socially responsible, but so does the production of these products. Thawrih's headgear is handmade in Ottawa by newcomers, which provides employment and a unique opportunity for these people. This employment allows female newcomers to enter the labour force, gain experience and confidence in their job, provide for their families, and also aids with the integration process of newcomer families into Canadian society. As mentioned before, this positive social impact gives Thawrih a competitive advantage as this positively influences consumers' buying decisions. Nike, Modanisa, and Capsters have a

minimal social impact in their business models, but Asiya has a moderate social impact. Asiya encourages physical activity among youth, especially women, and provides uniforms for sporting teams. However, the production process does not have a social impact like Thawrih's does, which leaves Thawrih with the overall advantage.

Product Quality and Price

Product Quality: This category compares the quality of the products each company offers in terms of material and performance capabilities.

Price: Compares the monetary value that customers have to pay for the products from each company.

When it comes to product quality, it is a fairly level playing field between the competitors. Thawrih, Nike and Asiya all produce high-quality products with material that is not only comfortable but also breathable and sweat-proof. These products average around \$30-40 between the companies which is fairly expensive, but worth the high quality the consumer is paying for. Capsters offers a product of mid-range quality and offers a slightly lower price to reflect this, with prices ranging from \$20-45. Modanisa, on the other hand, does not focus on offering a high-quality product to consumers. They offer lower quality products but at a much more affordable rate, ranging from \$10-20. This allows them to capture the market at the bottom of the pyramid more effectively than the others. Overall, the product qualities and prices are fairly similar between the competitors and is not an area of large variation.

Company Origin & Distribution Channels

When it comes to origin and distribution channels among competitors, there are big differences from company to company. Nike has a large advantage due to its sales presence in 160 countries and production in 42 of those (Nike, 2019). Nike produces and sells their products worldwide and has access to significant more resources than competitors. Modanisa has also been successful in diversifying its distribution network, selling to customers in 130 countries around the world (Modanisa, 2019). This is an area that Thawrih and other competitors really need to focus on improving if they want to see success on a global scale, as they are mainly focused in one area at this time.

Conclusion

An overall scorecard for each company on the mentioned categories can be found in Appendix I. After our analysis, it is evident what Thawrih's strengths and weaknesses are. Thawrih has a competitive advantage when it comes to its social aspect and also benefit from high product quality. Thawrih stands out from the pack as the most socially responsible, which catches the eye of specific consumers. They also offer products of high quality that are sweat and waterproof in some models, giving them an advantage in quality. However, it is clear that Thawrih falls behind in terms of global presence and diverse distribution networks. Although there have been recent efforts to move into new markets, they remain fairly centralized and sometimes struggle with fulfilling long distance orders without shipping issues. Improving the effectiveness of distribution channels will have a large impact on the company because it will increase their market size drastically and will also help increase their website traffic and brand awareness.

Evaluation of Alternatives

Alternative 1: Centralize Production in Ottawa:

Stakeholder Impact:

Newcomers (full-time workers)	<ul style="list-style-type: none"> ● Change in lifestyle, must now commute to work (costly and challenging) ● Provision of a stable salary and benefits
Customers	<ul style="list-style-type: none"> ● Better production capabilities and inventory management ● Greater economies of scale may decrease production cost and prices
Owners	<ul style="list-style-type: none"> ● Facilitation of more efficient supply chain management (management can focus on more important tasks) ● Higher cost to set up and maintain ● Highly scalable

Legal: Thawrih would have to comply with additional regulation if production is centralized. In the City of Ottawa, this means that the company would have to also comply with zoning and industry regulations. The extent of Thawrih's activities would likely be confined to Light Industrial Zones. There are further legal considerations that would have to be investigated.

Overhead Costs: Centralizing production would constitute an incursion of significant fixed cost. By consulting various real estate sites like Spacelist.com, it was observed that commercial light industrial price per square foot per year varied in Ottawa from \$12-\$17. To account for 9 sewing stations, a small office, storage, and sanitary facilities, it was calculated that a minimum of 1600 square feet is required. Therefore annual rates can range from \$19,200 to \$27,200. For simplification an average cost of \$15/sqft/year will be used for all calculations moving forward, resulting in an annual lease cost of \$24,000. An extensive report would be required for a highly accurate cost formulation.

Centralizing production would necessitate additional costs such as utilities and insurances. Furthermore, this model would change the status of Thawrih's current workforce from contractual to staff, increasing the mandatory benefits associated with full-time labour. A further discussion with Thawrih management would be needed to understand the additional costs that may be involved.

Productivity Gains: Although centralizing production adds overheads costs, there would be a series of efficiency gains. The following points outline these benefits:

1. Productivity per worker:
 - a. Having a tighter quality control system would lead to less operator error and faster production feedback, decreasing the time consumed for unit produced.
 - b. Having a direct line of supervision encourages workers' time to be used efficiently.
 - c. Training and the sharing of best practices can easily be achieved in a centralized model.
2. Efficiencies of a centralized space:
 - a. Industrial machines have significant cost but would be necessary for an increase in productivity. Refer to *Appendix F* for a comparison of the domestic machines currently in use and the professional units. A centralized manufacturing site could take advantage of multiple shifts throughout the day, which could increase daily production output.
 - b. The current model's system of manually delivering materials to individual households remains inefficient, and distracts from the founders' priority on planning and conceptualizing more important organizational processes. Centralizing production would have centralized deliveries and storage. Procurement and distribution of products are a current challenge solved by this model.

Labour Costs: Thawrih would have to adhere to the practices outlined by the ministry of labour's Employment Standards Act (ESA). Thawrih has previously expressed their willingness to hire employees full time and pay the minimum wage. All the rights from the ESA that pertain to homeworkers are included in *Appendix G*. This appendix can act as a checklist to provide Thawrih with a deeper understanding of what their employees are entitled as the company makes a shift towards minimum wage. The ESA rights aim to lend a hand in this process. Information regarding labour costs and regulations have been summarized below, to aid in comparing the current cost of labour versus labour costs associated with this recommendation.

Labor Cost	Alternative 1	Current Operations
Hourly Wages	\$16.50	\$0.00
Non-Hourly Salaries	N/A	Depends on amount of product made
Bonuses	\$0.00	\$0.00
Overtime	\$24.75	Depends on amount of product made
Payroll Tax	\$0.00	N/A
Benefits/Other	\$0.00	N/A

At present payroll tax and benefits are unable to be calculated. Legislation dictating benefits under the ESA require an increase in labour cost. However, factoring these costs in will still create a payroll system on an hourly basis that is more affordable than the current contract agreements. Once further orders are secured securing the need for full time labour this payroll method save the largest per hour costs while granting the employees benefits and a fixed wage. The an use of this centralized site may necessitate Thawrih to hire labour more for the long term. As a social enterprise, this feature may allow the organization to maximize the impact of social well being by creating more economic prosperity.

However, this model would require a significant lifestyle change for current employees in Ottawa, resulting in an unintended consequence. Working from home on a flexible basis has allowed Thawrih employees to maximize their time with family while reducing their costs. With a centralized system, they would no longer be able to care for their families to the same extent, possibly now creating the need for child care. Commuting would also carry a further cost for employees. However, in a centralized location, workers can expect wage and benefits, paving a way for financial stability.

Not following a centralized production system could be unsustainable as Thawrih's business model could be easily replicated. Another organization could scale faster making Thawrih's operations obsolete. A central productions facility can also make raising capital easier. Investors or creditors may be more willing to provide fundings if there is something more concrete that may

be presented as a way to scale. To provide Thawrih with a detailed understanding of the complexity of the challenges associated with centralization refer to Appendix H.

Alternative 2: Status-quo

Keep production decentralized, increase productivity.

Stakeholder impact:

Newcomers (contract workers)	<ul style="list-style-type: none">● Remain able to work at home (convenience)● Same pay (paid per item with machines that need breaks)
Customers	<ul style="list-style-type: none">● Higher chance of backorder (slower service)● Prices remain the same or very similar.
Owners	<ul style="list-style-type: none">● Difficulty distributing material/picking up products from homes.● Lower cost (no production space)● Difficulty growing the business

Remaining with the status quo and increasing productivity would make it difficult to scale the business long-term. This is currently Thawrih's main area of concern as they gain more market traction.

Due to the limited income that recent immigrants can earn before their state benefits such as welfare are reduced, scaling production will be more complicated than simply giving workers more hours. Thus there is a low total work hour ceiling that can be attained with the current number of employees. Thawrih will have to contract more staff to increase total production hours. This act will worsen current the current inefficiencies of the status-quo. To increase productivity while maintaining the status quo, Thawrih will need to implement an inventory management system to manage orders and more accurately inventory and materials at the different locations they may be found in.

This model will be largely dependent on the use of domestic sewing machines for the short to mid-term. The inherent nature of this equipment compared to the industrial machines used in centralized production sites will create a production bottleneck as domestic machines overheat and breakdown frequently. Overtime as staff become more experienced and gain the required training of industrial machinery, this equipment can then be provided to boost productivity.

The adoption of a inventory management system will keep costs relatively low. More importantly there would be a lower time commitment for owner's to handle the tracking of these processes manually, allowing management to focus on other priorities.

Alternative 3: Outsourcing Production

Production shift towards external manufacturer.

Stakeholder impact:

Newcomers (contract workers)	<ul style="list-style-type: none"> ● Removed from employment
Customers	<ul style="list-style-type: none"> ● Better quality products ● Efficiency gains could lower prices
Owners	<ul style="list-style-type: none"> ● Large initial orders by the thousands, would require significant up front costs ● Lower per item cost ● Highly scalable but less responsive

Thawrih outsources the production of its lifestyle sportswear lines to an external manufacture in Montreal. Thawrih could apply this same principle towards the production of its headgear lines.

To outsource production Thawrih would have to place large orders of a thousand units or more incurring significant costs. Unlike a centralized model, outsourcing would save significant overhead costs. Compared to the decentralized monitor, outsourcing would have minimal operating requirements. Yet compared to the previous alternatives, this system would have the longest lead times and least control but in removing the need to manage a workforce, management can refocus this energy into marketing.

This most significant disadvantage however, would be the removed benefit from maximizing or providing employment to any newcomers or other disprivileged people. If internal production is completely removed, there would be little reason to maintain the positions of current contractees in their current positions. The costs of training and skills development to onboard these workers into operational areas of Thawrih would be infeasible due to the required needed resources.

The largest apparel manufacturers like nike engage in these forms of supply chain contracts instead of hosting their own internal production. Seemingly, this industrial standard would sacrifice Thawrih's social aspect which would be detrimental to the purpose of this consulting assignment.

Decision Criteria

1. Criteria Chosen

Three alternatives have been distinguished in our project, all presenting advantages and drawbacks: centralization, outsourcing and decentralization.

In order for us to assess which of the three alternatives would best fit Thawrih needs and strategy, we have selected three main criteria.

- **Problem of costs and financial concerns**

- Possibility → Can the company afford it?
- Affordability → Do the money they gather should serve for that or for other investments?
- Revenue potential → How much should this cost? Is the investment worth it in the short or in the long run?

- **Social involvement**

- Can the company preserve its social concerns, its image, its commitment towards newcomers?

- **Production**

- Can Thawrih maintain or increase its production abilities?
- What does a possible centralization or decentralization change in terms of management, control of stocks, deliveries etc?

We then decided to position Thawrih for each of the criteria:

Criteria	Position of the company
Cost	The company has limited financial capabilities due to the newness of the business.
Social	Maintain the social aspect..
Production	Maintain and eventually increase the current production and stocks.

To evaluate each alternative, we have marked each criteria with a number from 1 (least beneficial) to 5 (most beneficial). 3 represents a neutral impact.

2. Evaluation of the first alternative: Centralization

Cost

Centralization will have the most significant upfront and ongoing costs. By consulting various real estate sites, to account for nine sewing stations, a small office, storage, and sanitary facilities, it was calculated that a minimum of 1600 square feet will be required. Therefore, annual rates can

range from at least \$19,200 to \$27,200. Since centralizing production would necessitate additional costs such as utilities, insurance, and the compliance of additional regulations, we have decided to grant a 1 for the cost criteria.

Social

Centralization would change the status of the current workforce. Therefore, it would increase benefits associated with full time labour. Workers would also have to face a significant lifestyle change away from the home but will likely take away the additional funding they receive from current state benefits. This criteria is granted a 3.

Production

Centralization is certainly the best option for production management. It would lead to an increase in the productivity, make the supply chain more efficient, entail less operator errors and faster feedback with direct line of supervision. This criteria gains a 4.

3. Evaluation of the second alternative: Decentralization

Cost

Decentralization would have the least upfront costs. Newcomers would work from their home while maintaining the same pay. No additional fixed cost or insurance would have to be assumed. Thus this criteria gets a 5.

Social

Decentralization is the best option to preserve the social aspect as it remains the most convenient alternative for newcomers. This criteria also gets a 5.

Production

This option would still present problems for the production. Thawrih would need to implement an inventory tracking system as the two co-founders have difficulties monitoring all inventory. Finally, the transportation of material to and from newcomers' homes remains an issue. This criteria was given a 3.

4. Evaluation of the third alternative: Outsourcing

Cost

This ensures the company the benefits of cost savings. Large orders will be made but at a better price. Therefore, this criteria is granted a 3.

Social

This option would lead to a total elimination of the social aspect as all the tasks would be delegated to subcontractors. There would no longer be newcomers. This criteria only gets a 1.

Production

Outsourcing production would solve problems of storage, deliveries and supply of raw materials. It would be simple for the two co-founders to delegate tasks, hence, it can help them save time and focus on other problems within the business. As this option is quite efficient for production, it gets a 4.

5. Summary of the evaluation of criteria

	Costs	Social aspects	Production
Centralization	1	3	4
Decentralization	5	5	2
Outsourcing	3	1	4

Recommendation

Decentralized System with Increased Productivity

Decentralization remains the best structure for Thawrih's current stage. It has the lowest upfront cost. There are minimal overhead costs since newcomers work from their homes and since they are contract workers, Thawrih does not incur many labour costs as seen in Appendix G (overtime, parental leave, etc.). Moreover, it remains the best structure to maintain Thawrih's social aspect of hiring newcomers. The decentralized structure is the most convenient alternative for the workers. They can easily balance their work and family life without having to commute to a centralized workspace. Meeting and increasing production remains a challenge with a decentralized system. The founders will still need to drive material to newcomers' houses and track inventory, making it difficult to anticipate material needs. To scale production capabilities Thawrih will need to implement a new system to track inventory. Thawrih currently meets client demand through tracking orders and inventory as they come in through Excel spreadsheets.

To increase productivity, Thawrih should implement the inventory management system InFlow. This system works on computers, mobile phones, and laptops to allow small business owners to

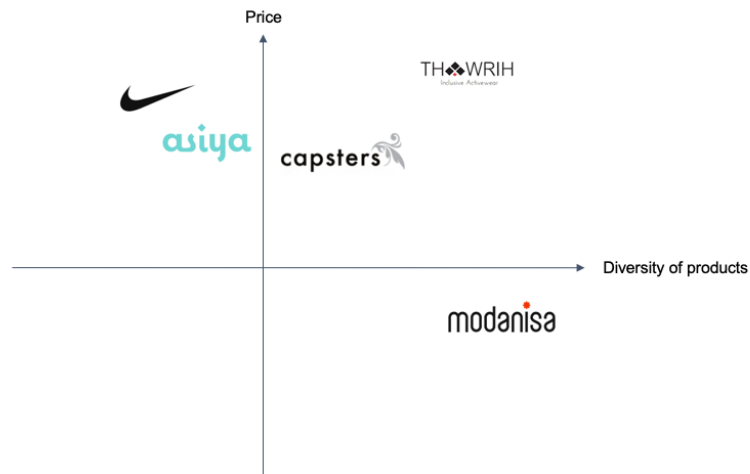
manage their inventory. The system can sync with multiple platforms such as Shopify to track inventory in multiple spaces and predict supply and demand. This way, the business can optimize the decentralized model. Newcomers can use InFlow on their phones to input their material and product inventory at the end of each day. The founders can use this information to prepare for material needs by placing orders ahead of time, or delivering more material to newcomers' houses before they run out. The system involves all members of the team. Including newcomers on the platform will allow for accurate inventory levels and a better understanding of needs at each house. InFlow offers various price points depending on the business' needs as well as the option to add more team members. As Thawrih continues to grow they can pay an additional amount per month to add new team members. Thawrih can expect to pay between \$150 to \$300 dollars per month for the system depending on what features are necessary for their current state.

Implementation

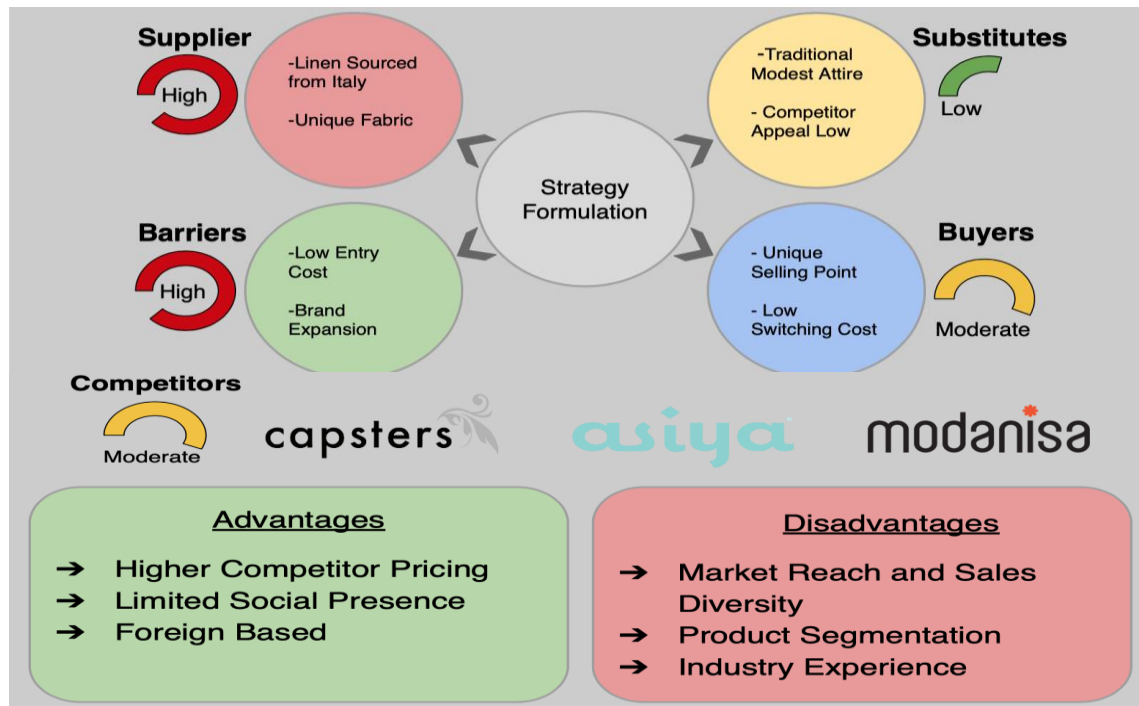
We recommend that the founders begin a 30 day trial of InFlow immediately. They should begin to use the platform to manage the inventory in their own houses, in the Amazon warehouse, and through their website. About two weeks into the trial once they have a good understanding of the platform they will need to include the newcomers. They should spend a day with all the newcomers to go through how to use the app on their phones. The workers will need to understand how to input their personal inventory and what information is expected from them at the end of each day. The remaining weeks of the trial period can be used by all team members to transition into the new system. Once the trial period is over the founders can purchase the InFlow package. As they hire more newcomers, they can pay the additional per month fee to add more users to the system. Implementing the inventory management system allows for additional jobs to be created since Thawrih will be able to stay on top of current orders.

Appendix

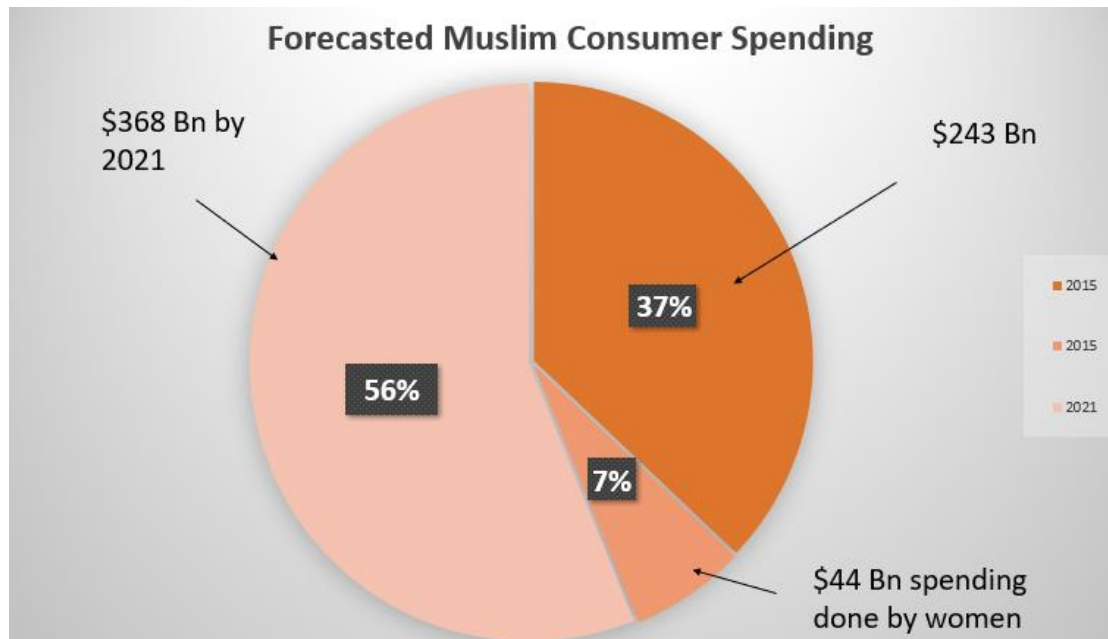
Appendix A1: Brand Positioning Map for Companies Specializing In or Adopting Hijab Sportswear Segments



Appendix A2: Porter's 5 Forces Analysis on Thawrih

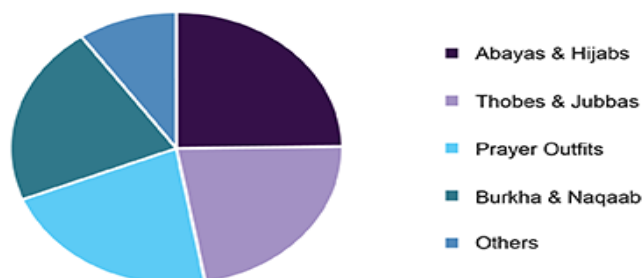


Appendix B1: Market industry analysis: Forecasted Increase in Muslim Consumer Spending on Sports Apparel



Appendix B2: Market industry analysis: Forecasted Market Share of Modest Wear

Global Islamic clothing market share, by ethnic wear, 2015

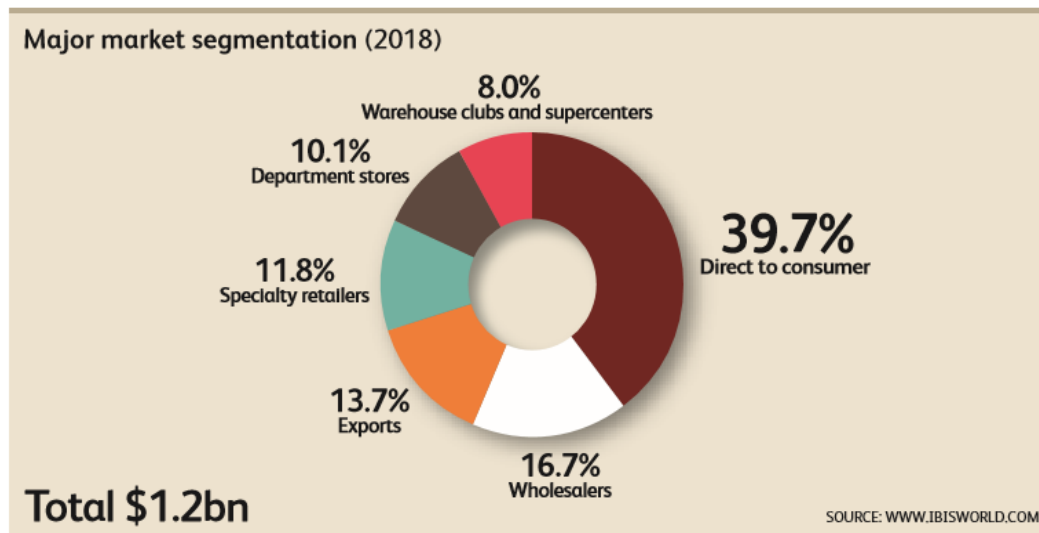


Source: www.grandviewresearch.com

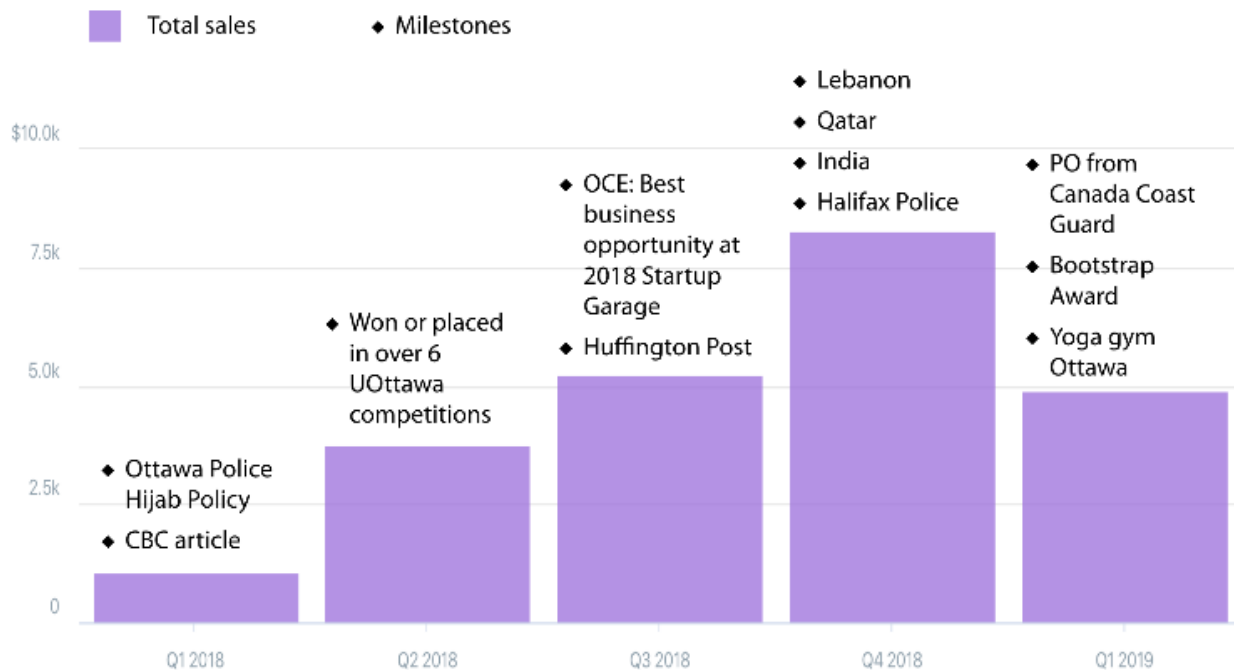
Appendix B3: Factors That Affect Best Practices In This Industry



Appendix B4: Market Segmentation for Sports Team Uniforms (US)



Appendix B5: Thawrih Sales Figures for 2018



Appendix C: What is the best choice between industrial or domestic machines?

	Industrial	Domestic
Quality of sewing	Highest quality of stitch	Changes in thread, material or tension can result in low-quality that require adjustment and entail a loss of time. The motor of the domestic machines heats up after rigorous work.
Sewing speed	These machines are made to go at a faster speed to increase sewing production. Industrial sewing machines can outfit a variety of 1,000 to at least 4500 or 5,000 stitches per minute and incorporate monitoring and control mechanisms to counter seaming problems such as pucker and thread breakage.	Most have a similar maximum sewing speed that allows users to go at a comfortable pace. The speed of the domestic machines is inferior to the industrial ones. Most domestic sewing machines go just under 1000 stitches per minute.
Maintenance and requirements	Due to their industrial use and	Most models require no

	the volume of fabric fibers that goes through them, these machines must be constantly cleaned and oiled.	maintenance and can have their own built-in oil system. When repairs are required, parts and service are usually easy to find, especially for top brands.
Cost	Most good quality industrial sewing machines are more than \$1000. From \$1000 to \$2000 in general but some are available from \$800.	For a good quality basic sewing machine: \$100. For specialty machines and those with more features: from \$200 to \$600.

Major differences between industrial and domestic machines:

There is a wide fleet of industrial machines available at the market. These are mainly categorized into

- Post bed sewing machines → mainly for 3-dimensional products like hats, caps, purses etc.
- Flat bed sewing machines → used to sew basic flat fabrics and undertake simple projects.
- Cylinder bed sewing machines → cuffs, shoes, saddle bags.
- Free arm sewing machines → used to sew circular projects like cuffs, sleeves, t-shirts, etc. These machines usually come with an accessory that can convert the machine to a free arm machine or a flatbed machine according to your choice and requirement. They could be useful for Thawrih.

Buying new industrial machines represents a large initial investment for the company. However, this investment could be really relevant for the long-term. It increases quality, rapidity, and efficiency. Performance is another significant difference between domestic and industrial sewing models. Because the motors of new alternatives are significantly more widespread and more robust than those of household units, they can be used years and years.

Appendix D: Full List of Employment Standards Act For Home Workers Rights

Homeworkers are eligible for:

- Minimum wage
- Regular payment of wages
- Wages are paid for a recurring pay period on a recurring pay day, and
- Written wage statements are provided for each pay.
- Written job details

- Hours of work protections (i.e., maximum hours of work, and daily and weekly/bi weekly rest periods)
- Overtime pay
- Vacation with pay
- Public holidays
- Pregnancy and parental leave
- Sick leave
- Family responsibility leave
- Bereavement leave
- Family caregiver leave
- Family medical leave
- Critical illness leave
- Organ donor leave
- Reservist leave
- Crime-related child disappearance leave
- Child death leave
- Domestic or sexual violence leave
- Notice of termination
- Notice of termination of assignment (applies to assignment employees of a temporary help agency)
- Severance pay
- Equal pay for equal work

Appendix E: Outline of Challenges Associated With Centralization Alternative

Centralization requires an ERP system that can solve the following barriers:

1. Sales system that will:
 - a. Automatically create work orders for specific SKU's
 - b. Dispense these worker orders on a ranked system that factor in contractee capabilities such as:
 - i. Labour availability
 - ii. Skillset
 - iii. Equipment
 - iv. Supplies
 - b. Track inventory levels at:

- i. Production sites (contractees' houses)
 - ii. Storage sites:
 - 1. Co-founders home
 - 2. Amazon warehouses
 - 3. International warehouses
 - 4. E-Hub for excess inventory
 - iii. In motions (deliveries)
- c. Create shipping orders for distribution (through shipping partners like UPS)
- d. Invoicing and payment processing
- 2. Procurement system that will:
 - e. Track current supply levels
 - f. Create orders for new supplies
 - g. Create orders for necessary equipment
- 3. Human resource system
 - h. Compensates contractees for piece work automatically

Appendix F: Possible Applications for Decentralization Alternative

1. Slack Application - Has the option of a basic unlimited free trial, standard package or plus package. The most expensive plan is \$12.50 per month per user.

- Streamline work with integrated tools, providing a single channel for all tools and messaging.
- Make calls, have chat boxes, facetime, and share files through all different channels with clients, workers, and other businesses.
- A promise of data security

To access plans go to the following website:

- <https://slack.com/pricing>

2. Base Camp Application - Has the option of a free trial, standard package or plus package. or Pricing is \$99/month total for; Unlimited users, Unlimited projects, Every feature in Basecamp and 500GB of file storage.

- Providing a single channel for all tools and communication.
- Make calls, have chat boxes, video messaging, and share files through all different channels with clients and workers.
- Assign tasks with reminders to employees.

To access application go to the following website:

- <https://basecamp.com/>

3. Wimi Application - Included as an alternative link as it is ideal for small businesses.

Users can get started for free with up to 8 projects, 10GB of storage, and up to 10 users. Upgrade for more file sharing and users starting at \$5 per user, per month.

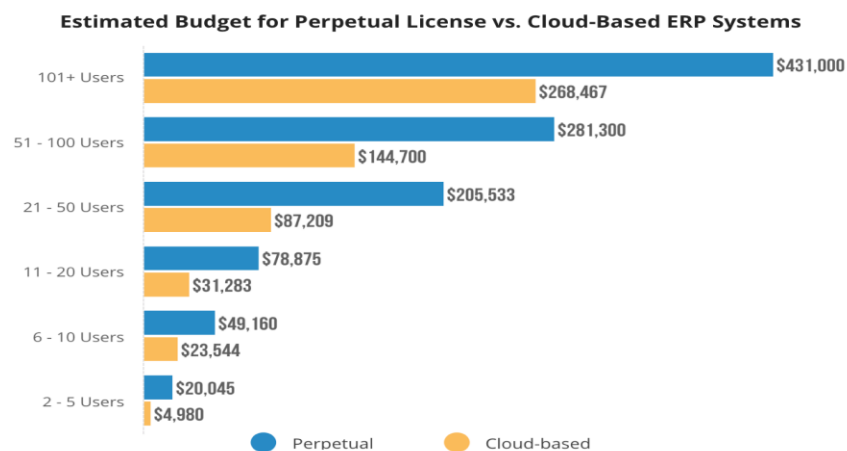
Pricing for enterprise is \$12 per user per month.

- Enterprise plan includes full-service integrations, unlimited projects, unlimited users, and a “customer success program”
- Private API and dedicated customer service attention to your account.
- All communication and messaging in one place

To access application go to the following link:

- <https://www.capterra.com/p/131830/Wimi/>

Appendix G: Pricing Options Associated with Future Alternative’s ERP System



1. For further information on the above pricing graph and factors per your industry visit:

- <https://www.softwareadvice.com/resources/erp-software-pricing/>

2. For additional comparison of top ERP Systems and pricing to choose from, access the following:

- <https://selecthub.com/erp-software/>

Appendix H: GAP Analysis

	Thawrih	Nike	Modanisa	Asiya	Capsters
Global Rank	4,481,287	525	6,768	5,161,510	11,989,283
Visits/Month	N/A	50-80 million	10-15 million	N/A	N/A
Brand Awareness	Low	Extremely high	High	Low	Extremely low
Social Impact	-very high social impact	-low social impact	-low social impact	-moderate social impact	-low social impact
Price	\$30 (mid-range)	\$40 (high)	\$10-20 (very low)	\$35 (mid-high range)	\$20-45 (mid-high range)
Product Quality	-high quality	-high quality	-lower quality	-high quality	-medium quality
Origin	-sole production in Canada	-production in 42 countries	-based in North America	-made in USA	-based in the Netherlands
Distribution Channels	-currently has some sales in other countries around the world -some efforts to expand and focus on other markets (California, India, etc.) but mainly in one location currently	-currently sells products in 160 countries with production in 42 of them	-delivers to customers in 130 countries worldwide	-similar to Thawrih as it does ship anywhere in the world but has delays when doing so and they're mainly in one location currently	-ships worldwide but also has delays and does not have extensive number of sales in all countries

Appendix I: GAP Analysis Overall Scorecard

	Thawrih	Nike	Modanisa	Asiya	Capsters
Global Rank	++	+++++	++++	+	+
Brand Awareness	+	+++++	+++++	+	+
Social Impact	+++++	++	+	+++	+
Product Quality	+++++	+++++	++	+++++	+++
Price	+++	+	+++++	++	++++
Distribution Channels	++	+++++	++++	++	++
Overall	3/5	3.8/5	3.5/5	2.3/5	2/5

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Personal Ethics Statement Concerning Telfer School Assignments

Group Assignment:

By signing this Statement, I am attesting to the fact that I have reviewed not only my own work, but the work of my colleagues, in its entirety.

I attest to the fact that my own work in this project meets all of the rules of quotation and referencing in use at the Telfer School of Management at the University of Ottawa, as well as adheres to the fraud policies as outlined in the Academic Regulations in the University's Undergraduate Studies Calendar.

To the best of my knowledge, I also believe that each of my group colleagues has also met the rules of quotation and referencing aforementioned in this Statement.

I understand that if my group assignment is submitted without a signed copy of this Personal Ethics Statement from each group member, it will be interpreted by the Telfer School that the missing student(s) signature is confirmation of non-participation of the aforementioned student(s) in the required work.

Santiago Acevedo

Signature
Acevedo Valencia, Santiago

Last Name (print), First Name (print)

Devon Upton

Signature
Upton, Devon

Last Name (print), First Name (print)

David Lebel

Signature
LEBEL, DAVID

Last Name (print), First Name (print)

Ankica Basar

Signature
Anisim Basar

Last Name (print), First Name (print)

Laura Bacic

Signature

Bacic, Laura

Last Name (print), First Name (print)

Julie Trupiano

Signature

Trupiano Julie

Last Name (print), First Name (print)

April 9,2019

Date
7764494

Student Number
April 9,2019

Date
8270818

Student Number
April 9,2019

Date
8326821

Student Number
7342324

Date
April 9,2019

Student Number
April 9,2019

Date

7674439

Student Number
April 9,2019

Date

0300103453

Student Number