

International Innovation Management

Assessment 2 – International Operations Report

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1 Introduction

Griffiths & Hughes Ltd. (G&H) has outlined their strategic plans for the company with the focus of expanding their business to control the manufacturing, marketing, and distribution of their product globally. Three geographical city locations were explored to understand their suitability to provide G&H the required conditions for their strategic global expansion. Buenos, Aires, Mumbai, and Tunis were chosen for this research due to their current adoption of innovative activities and approaches as well as their feasibility to accept international businesses to expand their activities to the three cities. The three cities also have an established manufacturing sector which ranges from electrical, automotive, and plastic moulding which can aid with G&H's line of products.

Their suitability for manufacturing, marketing, local work force capabilities, logistics, political and socio-economic situations were investigated in detail to provide a summary of their capabilities to aid with the global expansion of G&H. The benefit of implementing ISO 56000 and its advantages are also outlined in this report to further understand how such implementation can support with the expansion of the business to a new geographical location. The possible adoption of the ISO 56000 will help to provide a foundation for G&H to develop an innovative culture which can in turn boost and strengthen their product development processes and further help the business to excel internationally.

2 Suitable Global Locations for Griffiths & Hughes Ltd

2.1 Buenos Aires, Argentina

Located in South America, Argentina is the second largest country in Latin America and the eight largest in the world (O'Neill, 2022). Buenos Aires sits as the capital city of Argentina with a population of 15 million and is the second largest metropolitan city in South America (World Population Review, 2023). The city has a growing innovation strategy such as with developing expertise in taking innovative risk and testing new ideas, as well as an user centred design approach (Cities Innovation OECD, 2022).

2.1.1 Manufacturing and Production

New and established manufacturing companies in the heavy industry has grown faster in the city of Buenos Aires compared to other cities in Argentina (Tucshin, 2022). There are already 130 UK companies with permanent presence in the country with a growing number of opportunities in different sectors (Department of International Trade, 2022). More than one third of the industrial capabilities is in the Buenos Aires' metropolitan area with a half of all manufacturing jobs located in the city (Tucshin, 2022). About one-fifth of the labour force of Buenos Aires works within manufacturing which demonstrates the strong potential of the local workforce which G&H can greatly benefit with (Tucshin, 2022).

2.1.2 Marketing and Business Engagement

Argentina's economic activities are highly condensed within the Buenos Aires area with the United States being one of the top trading partners of the country (International Trade Administration, 2022). It consists of the highest English Proficiency Index scores in South America, with locals adopting a European style business culture. Aside from the close relationship with the U.S, Buenos Aires's population is largely of European descent which brings in cultural and business ties within Europe (International Trade Administration, 2022). With an already adopted European business culture, the marketing and business engagement strategy of the organisation will require very little to no time to implement and adopt in the local area and strengthens the suitability of city.

2.1.3 Skills and Capabilities of the Local Workforce

As stated, most of the local work forces of Buenos Aires works within the manufacturing sector (Tuculshin, 2022). However, despite an established and experienced local workforce, the country has been identified by the Global Competitive Index, 2017 as the third worst performing in terms of hiring and dismissal of personnel. It is also one of the worst in terms of the effects of employment taxes as an incentive within local employment (Hausmann, et al., 2020). Argentina is also one of the second countries with the highest number of personnel strikes and company shutdowns in the world, as well as having the largest number of employees involved which illustrates some uncertainties of employment satisfaction in the country (Hausmann, et al., 2020). This can lead to G&H facing such obstacles in the city of Buenos Aires when it comes to employment regulations and employee taxes.

2.1.4 Logistics and Transportation

The UK has imported a total of 1.2 billion in 2022 with the country being the 70th largest trading partner of the UK (Department of International Trade, 2022). Importing and exporting from Argentina to the UK is readily viable via sea freight or air freight. Exporting product via sea freight from Buenos Aires Port to Cardiff, Wales Port takes an estimated 21 days with a travel distance of 6,000 miles see Figure 1 (Searates, 2023).

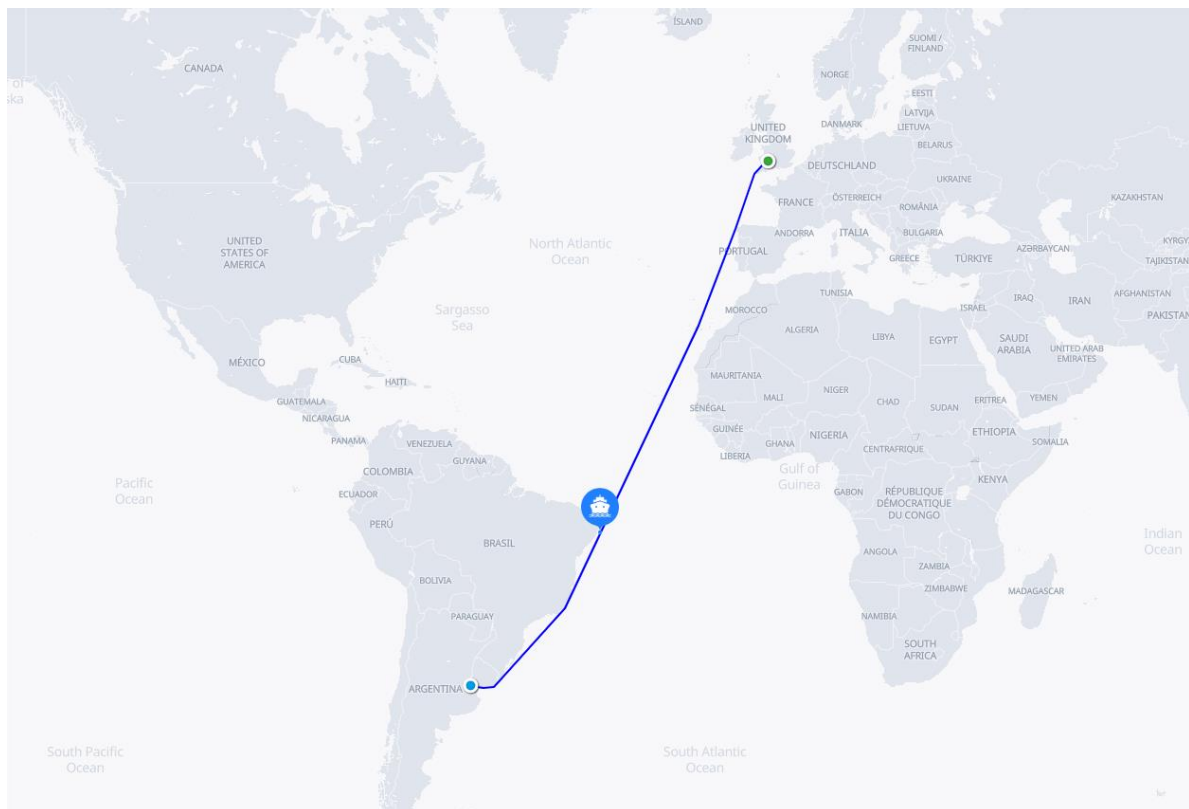


Figure 1 Sea Freight - Buenos Aires to Cardiff

Air freight from Buenos Aires to Cardiff takes an estimated 15 hours with a travel distance of 6,000 miles see Figure 2 (Searates, 2023).

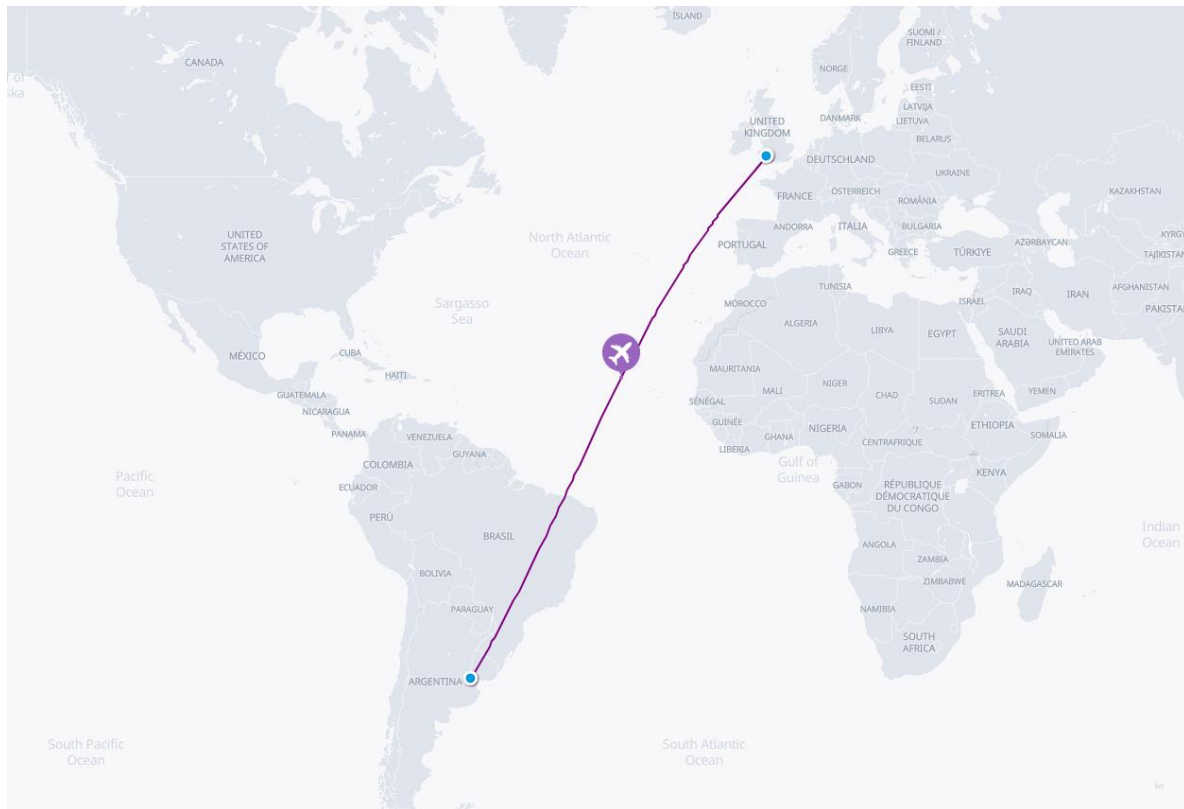


Figure 2 Air Freight - Buenos Aires Port to Cardiff Port

G&H can take advantage of the geographical location of Buenos Aires with sea freight since they have an established port which can export manufactured goods to their headquarters within a 6,000-mile radius. Air freight can also be considered for the quick export of goods with G&H being able to acquire manufactured the goods after 15 hours of goods travel.

2.1.5 Political Aspect

Argentina is considered to have one of the most stable democratic approaches in South America, but their government faces numerous challenges which includes endemic corruption and low levels of public trust (Roy, 2022). The country's economy relies on its major industries in automobile, textiles, mining, technology, agriculture, and tourism (Roy, 2022). A barrier that may negatively impact the suitability of the country as part of G&H's expansion is regarding their guidelines on patentability. Argentina's guidelines restrict the patentability criteria of new products that are an innovation of existing products (Wilsdon, et al., 2020) – given that the process of innovation is an iterative process, this restriction prevents the ability for manufacturers to patent such inventions.

2.1.6 Cultural and Social Implications

The business culture in Buenos Aires tends to follow the conventional 8am to 5pm working day with Spanish being the native language of the country, good understanding of the language can be beneficial and can provide an advantage with establishing and international site in the country since businesses are traditionally conducted in Spanish (TMF Group, 2018). With any foreign businesses in the country, it is recommended to have a local Spanish speaker when liaising with distributors, for example, when discussing materials (International Trade Administration, 2022). It is also good to note that Spanish speaking countries have their own unique dialects which are often spoken differently in different provinces or cities. It is therefore a strong recommendation to develop positive working relationships with business partners and suppliers in Argentina (Scroope, 2018)

2.2 Mumbai, India

Located in India, Mumbai has been dubbed the 'city of dreams' as it has the greatest number of billionaires in the country (KPMG, 2020). It is India's most populated city with the largest and most densely populated urban areas in the world (Raghavan, 2022). Mumbai has a population of 12.37 million (KPMG, 2020) and the city is driven by its robust entrepreneurial culture with the financial hub of the country being in the city.

2.2.1 Manufacturing and Production

Mumbai is in the Maharashtra state of India and possesses the biggest economy among other states of the country (Lee, 2016). The city is the commercial and business capital of India, which is evident in the numerous manufacturing and service companies that have succeeded in the city and its suburban regions (Narkhede, et al., 2012). The city's major manufacturing ventures consists of the production of metals, chemicals, automobiles, and electronics which have been significant sources of income and employment within the city (Raghavan, 2022). The city's established manufacturing proficiency, especially within electronics, can provide an advantage to G&H when considering Mumbai as a location for expansion.

2.2.2 Marketing and Business Engagement

Mumbai has grown itself to be the start-up hub of India, with Indian established start-ups gaining around \$17.6 billion in investments in 2017 which exemplifies the city as an innovation and technology hub. The city's technological talents and specialist IT services has also attracted business engagements with US technology firms with the likes of Microsoft, IBM, Google, and Amazon have all establishing facility expansions in the City (Manning & Engelke, 2018). Mumbai is one of the prominent start-up hubs in the world with a potential one of the top start-up ecosystems in world (KPMG, 2020). With the city's thriving innovation and technological thinking, an expansion to Mumbai can provide local talents and experts with knowledge and ideas to support with the development of the company.

2.2.3 Skills and Capabilities of the Local Workforce

One of the biggest challenges of Mumbai and the country of India is generating jobs for the millions of people wanting to join its workforce every year. To meet this demand, the country takes advantage of new start-ups and companies (Mustafa, 2019), which G&H can benefit from. The company can benefit from the great pool of talent available in the city, with skillsets ranging from artificial intelligence to machine learning. Such talent pools are

accessible with the presence of local universities in the city as well as from the nearby city of Pune (KPMG, 2020), which further creates a pipeline of future talent.

2.2.4 Logistics and Transportation

The UK has imported from India a total of £17.5 billion and were the UK's 12th largest trading partner in 2022 (Department for International Trade, 2022). Importing and exporting from India to the UK is readily available via sea freight or air freight. Exporting and importing via sea freight takes an estimated 21 days with a travel distance of 6000miles Figure 3 (Searates, 2023).

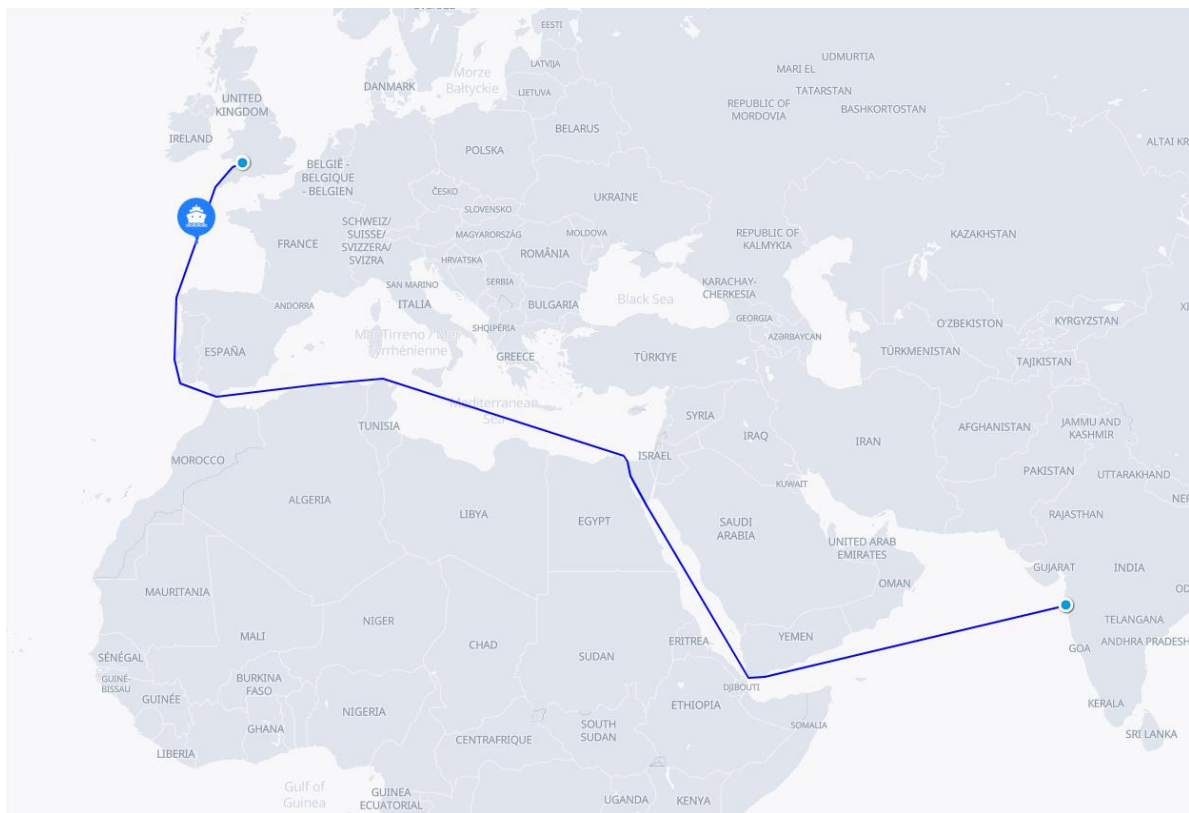


Figure 3 Sea Freight - Mumbai Port to Cardiff Port

Air freight from Mumbai to Cardiff takes an estimated 15 hours with a travel distance of 6,000miles see Figure 2 (Searates, 2023).

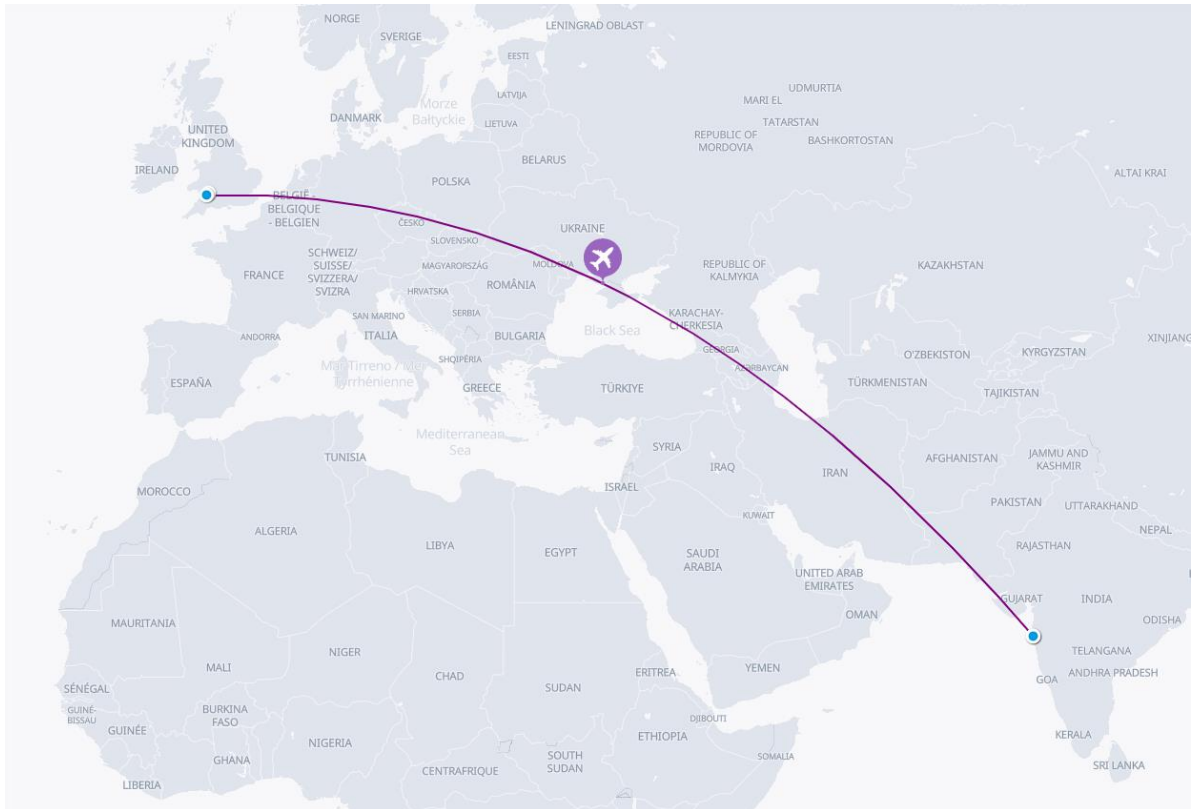


Figure 4 Air Freight Mumbai to Cardiff

G&H can take advantage of the geographical location of Mumbai like the location of Buenos Aires with sea freight since they also have an established port which can export manufactured goods to their headquarters within a 6,000mile radius. Air freight can also be considered for quick export and import of goods with 15 hours of goods travel.

2.2.5 Political Aspect

Restrictions with foreign investments were previously limited by the government regarding which sectors were open for overseas ventures, but this restriction has since relaxed with overseas investments being able to develop within companies and start-ups (Mustafa, 2019). The country's economic growth has been excellent in recent years sustained by a rise in government investments (CT Corporation, 2020). The main challenge outlined by the Indian government is to create and provide as many as one million jobs per month to accommodate India's growing young workforce (BTI Transformation Index, 2022).

A barrier regarding intellectual property issues in the country like Argentina's may be of concern for G&H with delays on applications which can take years to be approved in court (CT Corporation, 2020).

2.2.6 Cultural and Social Implications

India has a large middle-class population which makes it an attractive consumer market, and are also one of the world's largest markets for manufactured goods (CT Corporation, 2020) which can be utilised by G&H by being able to market their products locally within the country. A social implication that can be considered is Mumbai's high cost of living which is higher than other Indian cities (KPMG, 2020); this means that G&H will need to consider greater salaries for future employees to accommodate with high rental fees which can take an effect in draining resources invested by the business within the site (KPMG, 2020).

2.3 Tunis, Tunisia

Located in North Africa, Tunisia is located between Algeria and Libya (UHY , 2021). The country has a population of 12 million (The World Bank, 2021) with the widely spoken languages being French, Arabic and English (UHY , 2021). The city of Tunis sits as the country's capital city. The geographic location of the country is occupied by a central position that supports immediate connections to the EU and the countries of North Africa, the West, and the Middle East (UHY , 2021).

2.3.1 Manufacturing and Production

The Tunisian government has been successful in creating an attractive environment for foreign companies with the country increasingly becoming a top destination for EU investment due to its central geographical location (Newman, et al., 2016). There are currently an est. 3,000 foreign companies operating in Tunisia with the manufacturing sites being in coastal areas of the country where most of the export-based businesses are located (Oxford Business Group, 2023). The country's manufacturing industry started with their established expertise in textile production, with manufacturing sectors in plastics and automotive supporting the country's economic growth (Oxford Business Group, 2023).

2.3.2 Marketing and Business Engagement

The country's productivity gains and their adoption of innovative processes stems from their close relationship with the EU which presents 70% of the country's export and import businesses (Arouri, et al., 2020). In the past couple of years, the country's manufacturing sector has experienced mixed performance especially within the traditional established industries, for example, with textile production which has lagged behind the growth of technology-based businesses within the automotive industries (Oxford Business Group, 2023). Continuous growth is expected to be seen by Tunisia especially with further foreign businesses establishing sites within the country which can project an estimated 40,000 local jobs within Tunis (Oxford Business Group, 2023).

2.3.3 Skills and Capabilities of the Local Workforce

In the past couple of years, external economic analysts have highlighted their concerns regarding skills shortages among the 4.1 million Tunisian labour force (UHY , 2021). Despite this report, educational opportunities have increased to provide training to the country future workforce. The country's manufacturing sector strongly relies on a qualified,

productive workforce at competitive salary levels with the country's labour pool being relatively large (Oxford Business Group, 2023) – this will provide the required work force for G&H when creating a team of experts located in the Tunis site (Oxford Business Group, 2023). Furthermore, several engineering schools and higher technical institutions are in Tunisia, which the company can open a working relationship with to provide graduate schemes and future opportunities for future engineers (Oxford Business Group, 2023).

2.3.4 Logistics and Transportation

The UK has a good market relationship with Tunisia with total trade goods and services between the UK and Tunisia at £287 million in 2022 (Department for International Trade, 2022). The country is the 96th largest trading partner of the UK. Importing and exporting from Tunisia to the UK is readily available via sea freight or air freight. Exporting and importing via sea freight takes an estimated 7 days with a travel distance of 2000 miles – a shorter sea freight distance compared to both Buenos Aires and Mumbai Figure 5 (Searates, 2023).

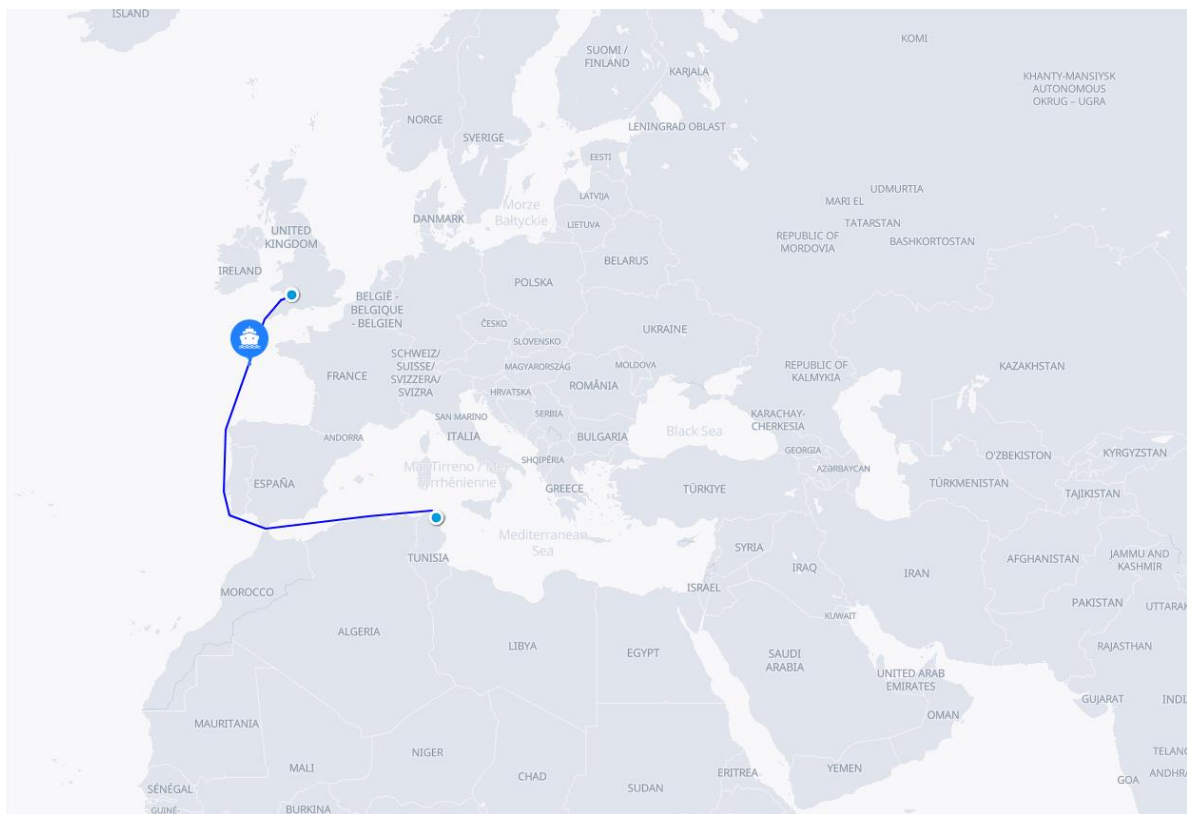


Figure 5 Sea Freight - Tunis Port to Cardiff Port

Air freight from Tunis to Cardiff takes an estimated 3 hours with a travel distance of 2,000 miles see Figure 6 Figure 2 (Searates, 2023).

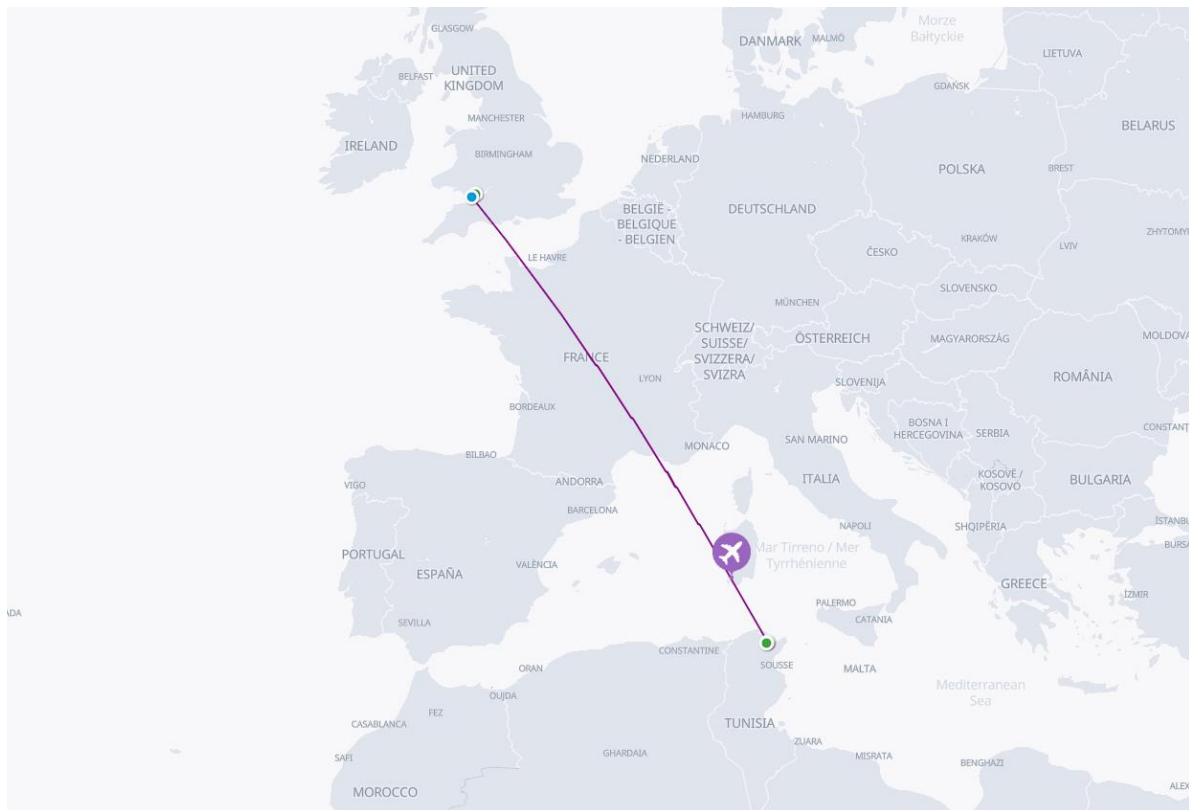


Figure 6 Air Freight Tunis to Cardiff

Compared to both Buenos Aires and Mumbai, the geographic location of Tunis can provide more of a logistical advantage to G&H especially with importing and exporting goods with both lower travel time on both sea and air freight. Travelling employees visiting the potential Tunis site can also take advantage of shorter flight travel compared to the other geographical considerations.

2.3.5 Political Aspect

Tunisian government regulatory developments have recently provided ease of process for international businesses and investors to set up a company in the country (UHY , 2021) which would provide an easier setup for G&H's potential Tunisia site. The country heavily relies on EU demand and investment made by companies in what the government calls 'established free zones' and provides tax deductions against income and provides invested in businesses (UHY , 2021). The country, however, is continuously experiencing political uncertainties, socio-economic problems as well as labour unrest which had remained a fact of life in the country which can negatively impact G&H's expansion (GOV.UK, 2022).

2.3.6 Cultural and Social Implications

The UK has had a continuous positive relationship with Tunisia and have supported the country with an increase trade opportunities post-Brexit (GOV.UK, 2022). The UK has also continued a strong interest in pursuing business opportunities in Tunisia especially in different sectors ranging from IT, energy, and financial and professional services (GOV.UK, 2022). The promising relationship of the UK to Tunisia can help G&H to experience an ease of development when considering the country for its growth strategy. The creation of a G&H site can enable new opportunities for locals which can contribute towards job creation, which is an ongoing crucial issue with the Tunisian government (Arouri, et al., 2020).

3 ISO 56000 Series Strategy

3.1 ISO 56000 Summary

G&H has cemented its business by developing security systems for both the domestic and industrial markets. Despite established development processes, the business must consider the adoption of ISO 56000 which can benefit its internal design processes as well as further propel the internal design and engineering teams to develop successful devices in the market.

3.1.1 ISO 5600 Consideration

Innovation is recognised as a vital factor for sustained organisational growth; a company's ability to innovate can successfully provide the business an ability to understand and respond to changing technology and market trends, identify new opportunities, and provide the ability to leverage the skills and knowledge of people within their business (International Organization for Standardization, 2019). Within the current market which G&H cater for, establishing such consideration for innovation can further provide the business a strong process which can be implemented as part of its geographical growth for a consistent innovation culture that can be adopted by each of its geographical sites. Innovation should be understood as both an outcome and a process (Kahn, 2018) – typical outputs of innovation are new products, but before an organisation identifies new ideas and technology for new products to be developed, innovation activities need to be first addressed to high degrees of variation and uncertainties, especially at the early stages of a product development process (International Organization for Standardization, 2019).

Considering the implementation of ISO 56000 can provide a culture of innovation within G&H's organisational processes which can also be transferred to the geographical expansion of its business. Organisational leaders of all levels must always promote and demonstrate their dedication to innovation activities (International Organization for Standardization, 2019). Another aspect of the standard is promoting collaboration as part of the innovation process. A team with diversity in experience, disciplines, competencies, and perspectives can support activities such as identifying user needs, expectations, and challenges during the development processes (International Organization for Standardization, 2019). Since the implementation of ISO 56000 sits as a guideline for the organisation to follow, considering the adoption of the standard can provide a competitive advantage to the company by continuously evolving its technologies and devices, thus driving its business to further success.

4 Conclusions

The three cities provided a good insight into the current feasibility and capabilities that can be considered by G&H as part of its planned geographical expansions. The cities of Buenos Aires, Mumbai, and Tunis have all demonstrated economic growth especially within the manufacturing sectors. The cities have on-going relationship with the UK especially regarding exporting and trading, as well as a diverse acknowledgement to innovation processes which are encouraged by each of the city's local governments. Each city all have local workforces which are experienced to provide the required skillset for G&H's expansion for a local manufacturing sites. They also have established higher education institutions which have encouraged innovative thinking, entrepreneurship, and technology which can encourage relationships with the business to acquire a pipeline of future talent.

The investigation also provided significant evidence that expansion of the business within the considered locations can help boost job opportunities which can help the city and its population with job access. Despite the identified strengths for each city, the political consideration each city brings must be thoroughly considered to prevent any negative impact to the business when considering the location for expansion. Further research must be undertaken by the business to extend the understanding of the feasibility and suitability of the cities as part of its expansion plans.

As a recommendation, an expansion in Tunis, Tunisia may be able to provide the strategic plans of the business. The city itself already has established its economic growth and the expansion of its manufacturing sectors. The country's educational system also consists of engineering institutions and networks of funded vocational training centres (Oxford Business Group, 2023) that the business can take advantage of especially with the implementation of ISO 56000 in creating an innovation led culture within the business. This recommendation is based on the research information gathered within this report, and it is recommended that the firm further investigate the feasibility of each city to meet its business need and for their final decision.

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