



The T & T Foresight Project

NIHERST

Sector Foresight
Project:

**FOOD &
BEVERAGE**

Chapter 4:

**T&T 'Best Bet'
Investment Cases**

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1 Introduction

The challenge for Trinidad and Tobago is to develop and grow export niche businesses which can provide economic growth and social benefit in the medium to long-term. The aim of the Sector Foresight project has been to develop 'Best Bet' investments that offer significant growth opportunities.

In Chapter 1 of the Sector Foresight Projects, a big picture view of the sector on a global scale was developed. This overarching framework provided a context within which potential opportunities small countries such as Trinidad and Tobago could exploit could be identified.

In Chapter 2 we identified the capabilities and enablers that Trinidad and Tobago already had available and which were relevant to the global sector foresight framework of opportunities. The capabilities and enablers assessed included existing commercial expertise, research and development expertise, skills availability, resource availability, government policies and support programmes, and infrastructure.

During the July 2006 sector workshops, various key T&T stakeholders identified 35 possible 'Best Bet' investment opportunities for the country that matched both the global foresight sector opportunities and the capabilities and enablers T&T had to offer.

In Chapter 3 the initial 35 potential investment opportunities were short-listed into 'Best Bet' investment opportunities (four in the case of the creative sector).

The structural format for building each 'Best Bet' revolved around the following focus areas:

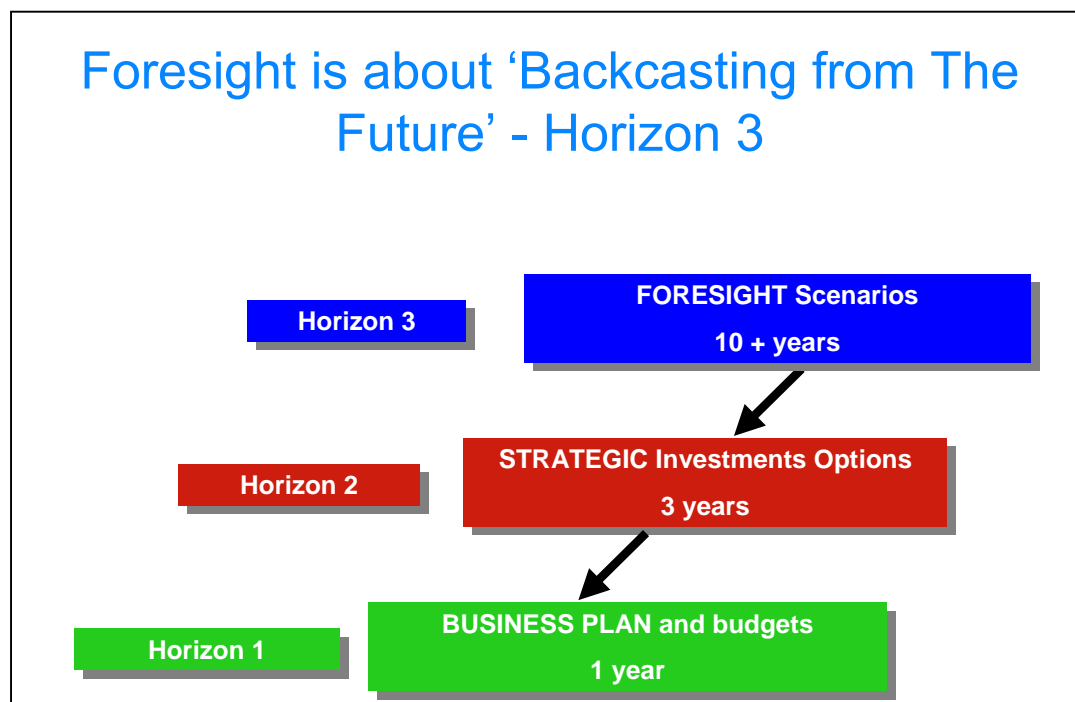
- **The Best Bet Title**
- **The Best Bet Description** – an overall summary of the 'Best Bet' opportunity
- **A Rationale** - for selecting the 'Best Bet' opportunity
- **The Target Markets** – who would the 'Best Bet' be aimed at
- **The Market Offer** – to target market customers
- **What We Have** – the capabilities and enablers available within T&T
- **What We Need** – the gaps that need to be filled and measures that need to be taken for the 'Best Bet' to become a commercial proposition
- **Key 'Best Bet' Roadmap Considerations** – an example of what a five-year roadmap for commercial realisation of the 'Best Bet' might look like.

In Chapter 4, each 'Best Bet' investment opportunity has been taken through an in-depth review and research process in order to build a business case for an investor audience. This needed to include supporting evidence, comparative justification, a roadmap, and a set of indicative financial projections.

2 The Foresight Context

At this point it is worth re-visiting the context within which these sector 'Best Bet' investment cases have been developed during these projects. Figure 1 provides an overview of that context in terms of the '3 Horizons'.

Figure 1: The 3 Horizons for business and organisational strategic planning and development

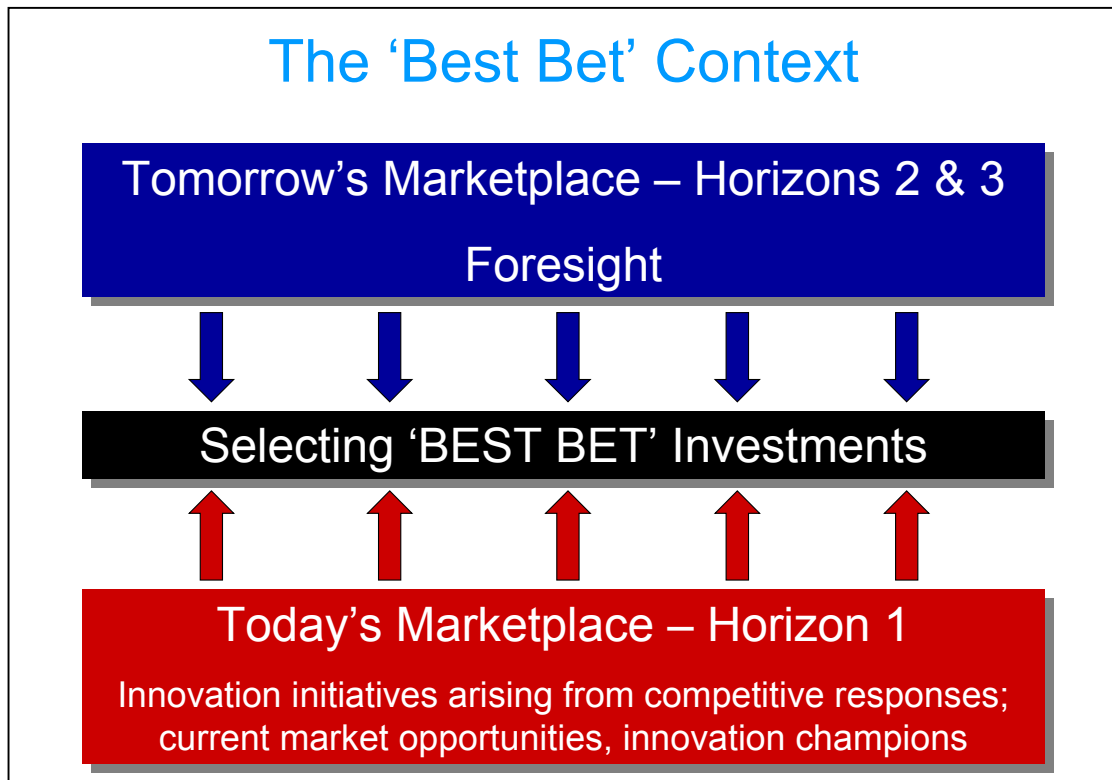


This foresight project uses the Three Horizons model which shows that there are three different perspectives to consider when identifying best bet investments in a sector. The long-term view (Horizon 3) identifies broad scenarios for the future of the sector, the medium-term view (Horizon 2) identifies the investment options, and the short-term view (Horizon 1) describes the immediate business plan.

The sector 'Best Bets' have been developed by combining Foresight insights from the future (Horizon 2 and 3) with opportunities in today's marketplace (Horizon 1). In the project we worked with many of the 'innovation champions' participating in the sector today. These include entrepreneurs who are already working with a wide variety of innovation projects today that have the potential for growth in the future.

The context for these sector projects is shown in Figure 2.

Figure 2: The T&T 'Best Bets' context



An example of a 'Best Bet' that has been phenomenally successful internationally is the launch of i-Pod and i-Tunes by the Apple Corporation. Apple did not invent MP3 players or the downloading of music on the Internet. But it did look into the future and saw that there was an opportunity to dominate in a growth market by making the technology easy to use and by adding great branding and design. Before the i-Pod came on the scene, the technology was too complicated for the average person to use.

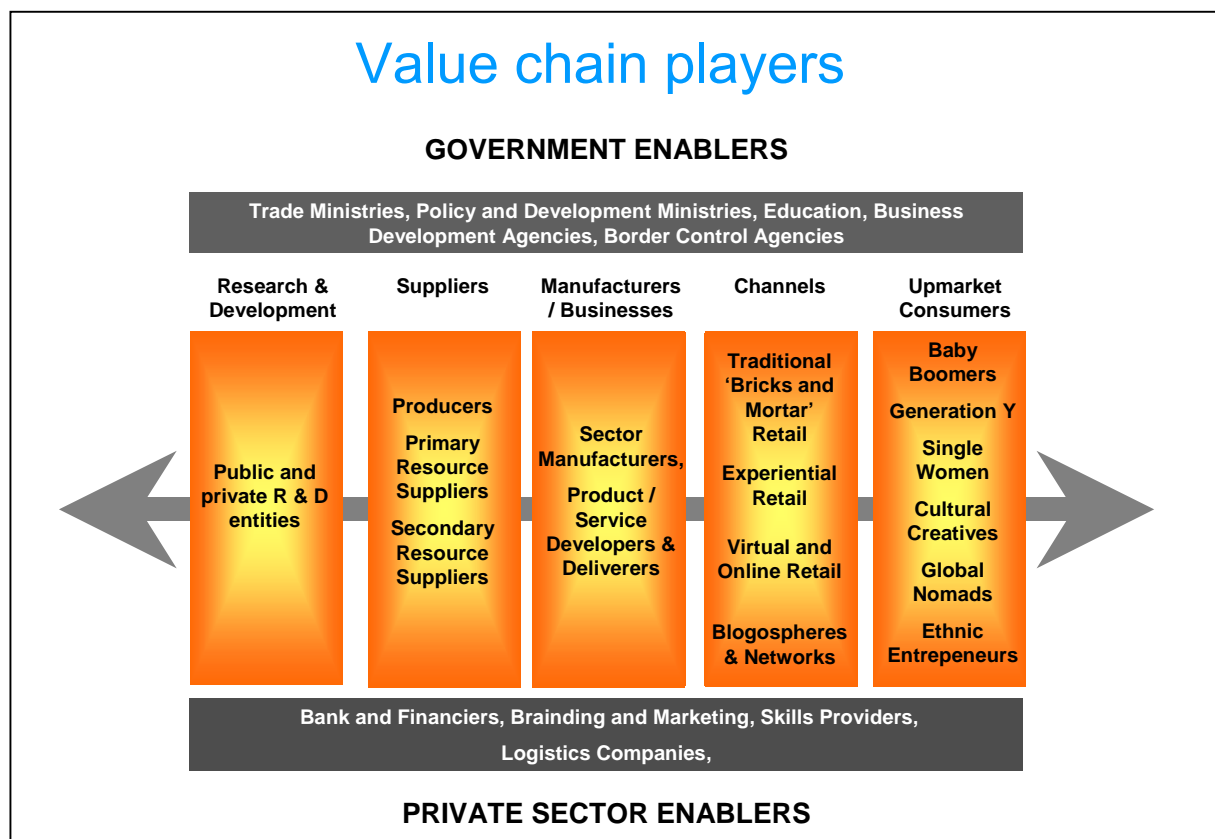
The Foresight Project has unearthed a considerable number of entrepreneurs and innovators in T& T who are not well known today but who have the potential to grow innovative businesses because they have the innovative capability required to provide offers which satisfy growth niches that are built around key global market trends.

Our research suggests that the sector is at a 'tipping point' where a cluster of interconnected innovative businesses, such as these three 'Best Bets' could grow rapidly and transform this T&T business sector to a level that would make a significant contribution to achieving the economic growth and social objectives associated with the Vision 2020 project.

3 The Value Chain

Global value chains are changing rapidly. Digitalisation and advances in global logistics are opening up a whole new range of opportunities, especially for small country players. Figure 3 illustrates the types of stakeholders typically involved in commercial value chains.

Figure 3: Examples of stakeholders in value chains



Policy setting and enabling agencies fundamentally support the effectiveness and efficiency of the value chain between the production sectors in one place and the end-customers in other places.

The intermediaries between the producer and the customer ends of the value chain are changing rapidly. Door to door 'packages for one' delivery services now span much of the globe. Online marketing is growing rapidly. Virtual networks and communities are determining what is 'in' and what is 'out' at an increasingly rapid pace. We have moved from an age where markets were production driven to markets that are customer driven. Customers are now 'kings' and 'queens' and failing to satisfy their increasingly specialised demands – 'customised solutions for one' – will lead to business failures. Many traditional players have been forced to urgently review their business models in the face of the rapid changes occurring in global value chains.

The emerging customer-centric value chain model offers far more opportunities for small countries and the commercial entities within those countries. This is because individual businesses, even small and medium sized enterprises, can more readily link directly with end customers on a global scale and so they are no longer limited to supplying small niches within a local market.

A tiny global niche can thus build a substantial business in a small country. But it does require a radical shift in thinking and a highly customer oriented approach. It requires accessing and developing strong networking and network management skills. It also means being able to work more closely with customers to better understand what it is they need.

4 The Chapter 4 Approach

Each of the sixteen 'Best Bet' opportunities selected in Chapter 3 has been researched in greater depth by specialist T&T based researchers. Their brief was to interview selected key stakeholders whose experience was relevant to each 'Best Bet' opportunity using a template supplied by NEXT.

This template posed a series of questions that would similar be those asked by a potential commercial investor if they were looking to invest in a 'Best Bet' business opportunity. It also included a 10-year financial projection template which would provide an estimate of what could be achieved if the right mix of people and resources were put together to back a particular 'Best Bet' and achieve an outcome in the top 20% of the range of possible outcome scenarios.

In addition, both the T&T researchers and the NEXT team looked for additional information and examples, within T&T and offshore, which would provide supporting evidence that would strengthen the justification of each 'Best Bet' investment case. These examples included, for example, new emerging businesses that had focuses relevant to the business case, advances in science and technology that opened up new opportunities, new and innovative high growth channels which connected producers and customers, and other reference sources that were of special relevance.

As in any process such as this, it is not possible to find answers to every question. Each 'Best Bet' investment case is built upon the best possible information and knowledge available at the time of its development.

In the following sections we have built business cases that can be put forward to attract both public and private sector interest. The two need to work in tandem for the development of the sector. The private sector provides its vision, organisational, financial, and managerial experience in areas in which it possesses the required expertise, whilst the public sector provides the supporting administrative and regulatory environment.

5 The Food & Beverage Sector ‘Best Bets’

The following three ‘Best Bet’ investment opportunities were identified in Chapter 3 as offering the greatest opportunities for the future of T&T’s food and beverage sector.

In the process of researching and testing these ‘Best Bet’ opportunities with industry stakeholders, it became clear there is a considerable resource base in T&T, particularly in the country’s research institutions along with a number of key entrepreneurs, that would enable each of these ‘Best Bets’ to be developed into quite unique businesses that satisfy specific growth niches internationally.

Each provides a more specialised opportunity within an overarching more focussed approach to developing T&T’s food and beverage sector in a way that in future it has the greatest economic, social and environmental benefits for the country.

5.1 **Best Bet 1: - Cacao – ‘Brown Gold’**

The Investment Opportunity

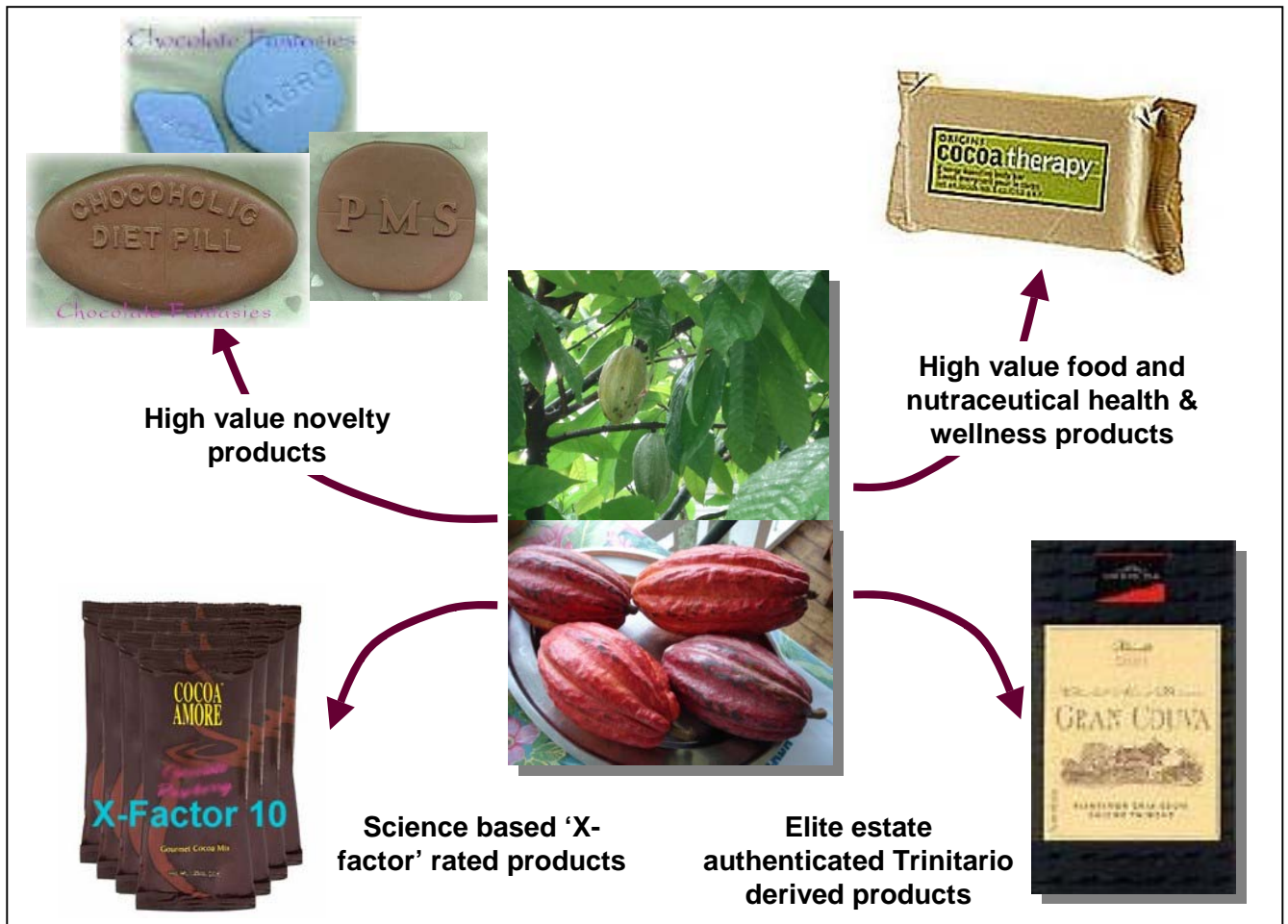
- The primary investment opportunity is **a business which focuses on extracting the maximum value for Trinitario cacao through using science and technology** to identify, develop and market unique value added products associated with a definable and scale rated ‘X-Factor’ in the cacao.
- Secondary investment opportunities would be in areas such as:
 - **New and innovative products** – especially with a lifestyle and health and wellness focus
 - **Non-traditional uses for cocoa** as an ingredient
 - Smart branding and marketing initiatives – such as a **‘cocoa appellation’** estate related initiative
 - **Value chain management** that maximises the value of a product that is already recognised internationally as an elite product
 - **An immersion tourist experience** built around the whole Trinitario story e.g. in the ‘Feel the Passion’ experiential tourism ‘Best Bet’ offer.

The Customer Offer

- Trinitario cacao has an inherent quality that differentiates it from other cacao types. It is world-class and is already differentiated in term of taste from other fine or flavoured species. It is high in demand from fine chocolate manufacturers and other chocolate makers as an agent to mix with the bulk cocoa in the blending process for lower-value chocolates.
- Chocolate is known for its feel good factor and high anti-oxidant content – which provides not only a pleasure connection but also a health and wellness (and performance) connection in people’s minds.
- The use of herbal stimulants is increasing around the world as a form of legal recreational mind altering substances.
- The offer would be built around an S&T identified ‘X-factor’ in Trinitario cocoa that would create an added value perspective for consumers that provided real and/or perceived benefits above and beyond the basic food concept of a product.
- Consumers would be able to choose products based on a ‘X-factor’ scale that featured on products within which Trinitario cocoa is an ingredient. The higher the scale rating, the greater the ‘X-factor’ level.
- As a libido enhancing product - In Nigeria, the Director of the Federal Agency for Food & Medicine is promoting cocoa not only for it’s health benefits but also as a replacement for Viagra because recent research found cocoa boosted libido ([Link](#))
- More tourists are searching for unique immersion type experiences. The concept of being able to visit a cacao growing enterprise and to be able to enjoy the end products in a convivial on site atmosphere is likely to be a strong tourist attraction – just in the way vineyards and themed parks such as ‘The Big Pineapple’ in Australia and ‘Kiwifruit Country’ in New Zealand have become successful.

- Providing products that not only improve personal health and wellness but also enable consumers to indulge in a pleasurable experience at the same time.
- Cocoa/chocolate with a factor that has an associated premium.
- Extending the use of cocoa use into non-food areas, such as cosmetics and 'feel good' products that add extra dimensions to the consumer choice.
- An 'appellation system' that enables end consumers to identify with the elite end of the market.

Figure 4: The 'Cocoa – Brown Gold' offer



The Foresight Context For This Best Bet

- The key trends that support this 'Best Bet' investment opportunity are:
 - The growing need for more frequent fascination experiences and more intense pleasure-based experiences.
 - The growing focus on improving personal health and wellness in all aspects of daily living and in the food and beverage product area – the rapid growth in sales of healthy foods, supplements, nutraceuticals, and novel products.
 - An increasing preparedness to pay large premiums for health and wellness, experiential and 'Age Defiance' products.
 - The growth in high value gourmet niche food and beverage products.

- Increasing individualism and egoism – driving demand for things that are different and unique.
- The growth in sales of products and services associated with leisure activities – the experiential market – a preferred area for consumers to spend a greater proportion of disposable income.

Target Markets

- High-end consumers in wealthy market niches in both the highly developed and emerging rapid growth economies e.g. the high-end developing markets in China and India, Arabia, and Eastern Europe.
- Both the personal pleasure (in all its senses) and the health and wellness consumer focuses would be strongly targeted in global high-end niches. The rating system for the 'X-Factor' would be a key component for targeting these niches.
- The gourmet consumer – with a passion to try the new and different.
- Women - who are particularly fond of chocolate and cocoa-based products.
- Europeans and adventure tourists may be valuable target markets.

What We Have

- Trinitario cacao - which has an inherent quality that differentiates it from other cacao types in terms of taste compared to other fine or flavoured cultivars. It is high in demand from fine chocolate manufacturers and other chocolate makers.
- The demand far exceeds the current supply of high quality Trinitario cacao.
- Plant material, including the Trinitario strain, and a germplasm bank with an associated breeding programme that aims to boost mother stock quality and disease resistance.
- Expertise in growing cacao, a number of cacao holdings and estates and a historical association with cacao growing and processing.
- Well-developed research and development groups and highly skilled researchers.
- A view from some researchers is that the distinguishing qualities of Trinitario cocoa could be determined within a relatively short time frame.
- Land and a unique environment for growing cacao.
- Examples of successful branding based upon the world class Trinitario cacao.
- Some experience with estate related marketing.
- Knowledge of at least some of the components that make cacao/chocolate an 'essential' for many consumers.
- Some emerging entrepreneurs and some innovative product developments based around cacao in both the food and non-food sectors.
- A capability to produce our own T&T based cacao-derived products.
- New thinking from the Cocoa and Coffee Industry Board in favour of better organization of production and distribution, specific support activities, and projects to link with international chocolate operations to produce high-value dark chocolate with an associated the Trinidad and Tobago brand.

What We Need

To take this 'Best Bet' from where it is today – with the exception of a few very interesting entrepreneurs, this sector niche is still based on a relatively unsophisticated commodity type of offer largely influenced by traditional thinking – to a point where it makes a significant and valuable economic and social contribution to T&T, a number of areas need to be addressed.

From the Private Sector

- A greater level of innovation and entrepreneurship.
- The development of high end branding and marketing strategies.
- Value chain analysis and optimisation including identifying key alliances and relationships needed to make the whole thing work.
- Turning at least one cacao estate into a 'living experience' for tourists.
- Investors into the industry – both within T&T and in more attractive offshore production areas.
- A value upgrade from production through to consumption to extract greater value from the market.
- A move to fixed price contracts.
- TQM at all levels including maturity and harvesting.
- A supply buffer in order to provide consistent supplies to premium end users, particularly in key markets such as Europe.
- An increase in the Trinitario production base – both within T&T and in favourable places offshore.
- Quality based incentive payments to producers.
- An industry marketing plan that focuses strongly on 'X-factor' and innovation related value adding opportunities.
- Development of agro-tourism that includes a 'cacao experience' and links it with T&T experiential tour operator itineraries.
- Regional cooperation with other Caribbean producers e.g. in Jamaica and Surinam.
- Labour saving devices and coverage of lack of skills.
- A new industry structure to handle production, processing and marketing to global buyers.
- Higher pricing to farmers and buyers.

From the Public Sector

- Recognition that Trinitario cacao and the associated genetic material, accumulated knowledge, and expertise are valuable assets that can contribute significantly to T&T's future economically and socially.
- A new strategic focus in the way the T&T Trinitario cacao-related offer is presented to the world through government agencies built around foresight-based growth opportunities.
- An integrated approach within a national growth and innovation framework that provides a long-term direction for the food and beverage sector and which has a clear, harmonised strategy of development with the dedicated resources of manpower, finance, institutional supports, private sector involvement, and community involvement.
- Developing and managing systems for compliance with international food and beverage sector obligations and standards.
- Identifying opportunities for IP protection in areas related to Trinitario genetic material – in particular plant variety rights – and securing the rights as an intellectual capital asset for the country.
- Funding new areas of research that have a strong foresight focus and break away from the traditional 'academic' focus.
- Accelerating the commercialisation of IP that currently exists in many state and regional research institutions as well as the commercialisation of research project outcomes with potential through public/private partnerships.
- Improved infrastructure such as roads and the quality and cost of telecommunications – in particular Internet access and speeds.
- Speeding up and improving the effectiveness of the cross-border authorities.
- Increased capacity and investment in training specialist people for the biotechnology sector along with an offer of higher-level degree and diploma qualifications.
- Better collection and speedier processing of statistical data.
- Preservation of good agricultural land in T&T.
- Once the scale for an 'X-factor' is developed there will need to be regulatory support to facilitate and mandate its use. Certification methods will have to be introduced. CCIB could act as the certifying authority.
- Work at regional level on acceptance of the 'X-factor' scale, including with the assistance of CROSQ.

From R&D

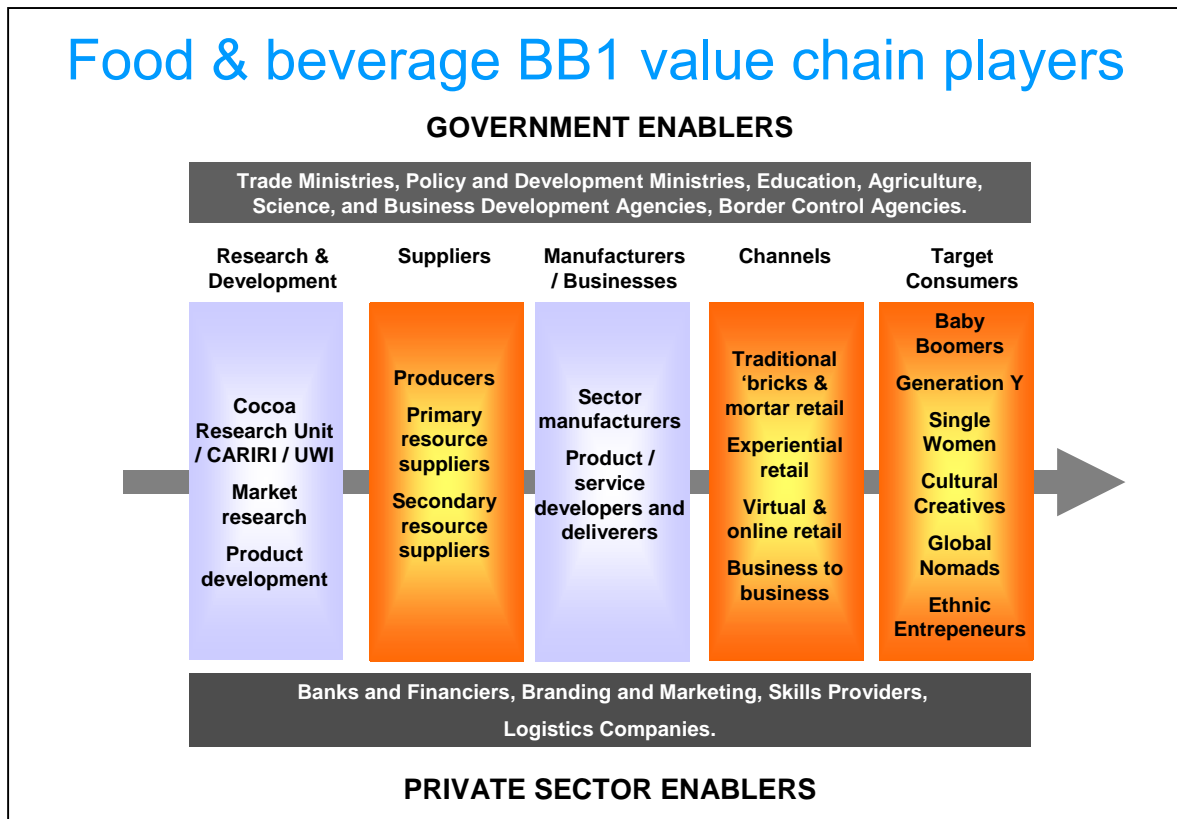
- Developing a system for identifying the factor(s) that make(s) Trinitario cacao so desirable. Once the 'X-factor/factors' are identified a certification system could be developed which could then be used to extract greater value.
- This will require local scientists to find the key element(s) that distinguishes Trinitario cocoa. It could be the level of anti-oxidants in the cocoa or something else like Theobromyn. A scale needs to be developed that provides a means for consumers to identify the 'potency' of the product at the time of making purchase decisions.
- Identifying ways estate based differentiation could be developed as a commercial value-adding lever.
- By improving the basic Trinitario genetic plant material with particular emphasis on quality factors and high disease resistance/tolerance.

- Protection of new cultivars through the application of international plant variety rights.
- High quality market research – especially with potential end users (traditional and non-traditional) – to identify mutually beneficial ways of leveraging extra value.
- Better dispersal of research knowledge.
- Developing higher value non-food uses for cocoa butter.

Best Bet Value Chain

This Best Bet centres heavily on both the ‘Research & Development’ and ‘Manufacturer / Business’ components of the value chain. The prime need is to drive joint public research and private sector initiatives to leverage greater value from the existing Trinitario cacao resource. However, these components are of little value unless all the other value chain components are aligned in the same direction towards a common medium to long-term goal.

Figure 5: The ‘Cacao – Brown Gold’ value chain

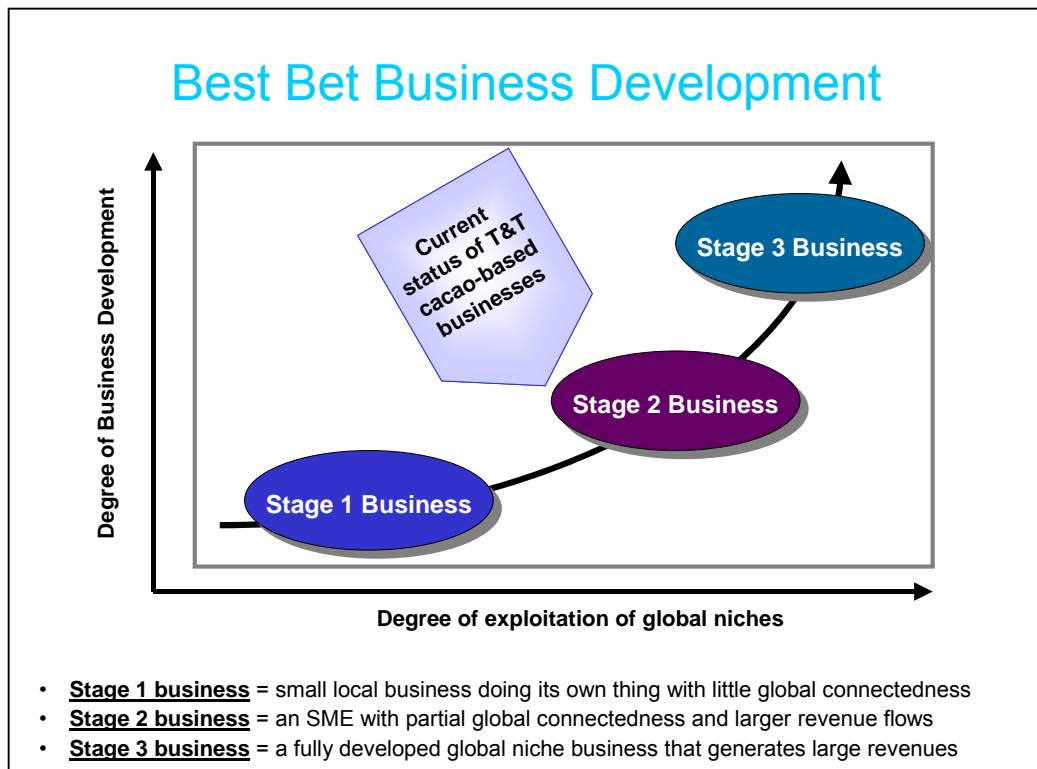


Key Local Players, Entrepreneurs and Offshore Examples

- There are a number of businesses connected with the existing Trinitario cacao sector. Some are operated by local entrepreneurs, mostly on a relatively small scale, whilst others tend to be larger relatively traditional offshore entities, especially in Europe. However, there are some emerging entrepreneurs offshore who are experimenting with a number of leading edge niche products who need to be connected with.

- All these groups could contribute to realising the potential value of a T&T 'Best Bet' investment built around leveraging greater value from Trinitario cacao. But there is a need for greater levels of innovation and entrepreneurship.
- In spite of a considerable amount of research and investment, the level of commercial development of high-value opportunities associated with this 'Best Bet' in T&T is still at a relatively low level. We feel it is at about the point illustrated in Figure 6.

Figure 6: The stage of development of businesses in T&T associated with the 'Cacao – Brown Gold' investment opportunity



Key local players, stakeholders, and entrepreneurs

In the commercial area entrepreneurial operators include:

Duane Dove – The Tobago Cocoa Estate

- He is behind 'The Chocolate Shop' which is opening in Stockholm in 2007. It will promote luxury sales of T&T derived rum and chocolate. He is also developing his Tobago plantation into an experiential centre for visitors.

Paul Manickchand - Sangre Grande

- A grower who achieves high yields of organic cocoa and has an innovative approach to business.

Gran Couva Chocolate

http://www.valrhona.com/fr/gpublic/chacchoc/gout/gr_couva/gr_couva.php3?vlang=A

High quality chocolate produced and marketed using a regional 'appellation' type of approach. It is produced by an offshore manufacturer but marketed as a T&T sourced specialist high quality product.



Other key players identified by the T&T research team include:

- Mr Lawrence Duprey.
- The T&T based food products group, Bermudez.
- Mr Arthur Lok Jack.

In the research area key players and stakeholders include:

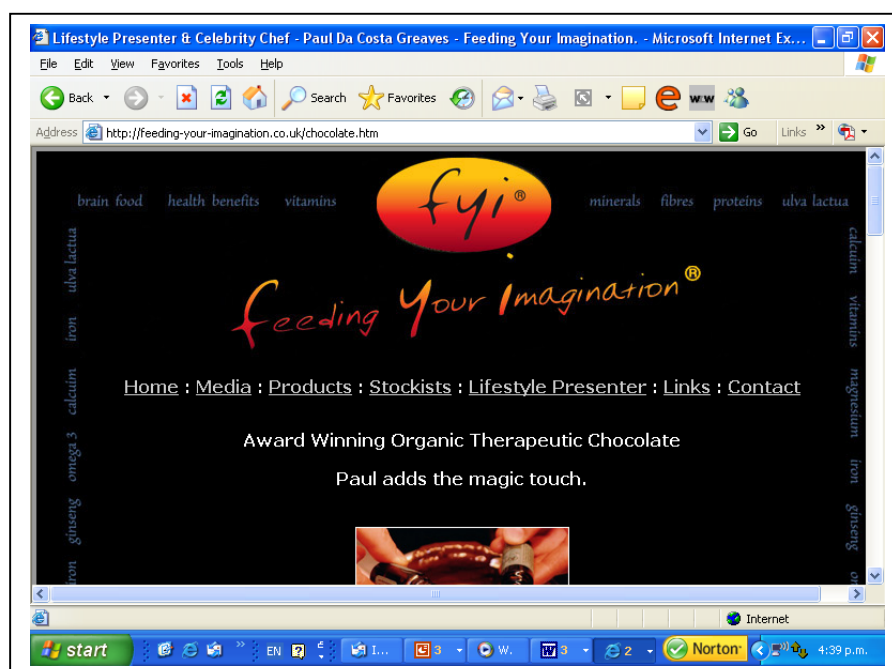
- Cocoa research specialists such as David Butler, Head of the CRU; David Sukher at CRU, Bruce Cockburn, a biochemist at UWI; Ulrike Krauss, a plant pathologist and Regional Director at CABI; Patricia Maharaj at Centeno.
- Research centres such as the Cocoa Research Unit (CRU), the Ministry of Agriculture Centeno Research Centre, UWI specialist researchers, and several CFC/ICCO/IPGRI joint projects.

Offshore examples

The following examples that demonstrate the degree of innovation leading edge entrepreneurs offshore are taking:

Feeding Your Imagination – UK <http://feeding-your-imagination.co.uk/chocolate.htm>

- This company has just released a range of award winning ‘organic therapeutic chocolate’ products. One is named ‘Sexy Chilli Chocolate’ – and contains both ingredients.
- The whole product range is quite amazing in terms of branding and product presentation and illustrates how to add value to basic cocoa in a highly entrepreneurial and innovative way.



Chocolate Fantasies, USA - <http://chocolatefantasies.com/pharmacy.htm>

This is an excellent example of an entrepreneur capitalising on the health and wellness trend – but in a way that provides consumers with a totally unique offer. It's a site well worth exploring if you are looking for innovation at the extreme edge!



The UMF Honey Group, New Zealand - <http://www.umf.org.nz/>

- This is an important site with regard to extracting value from Trinitario cocoa.
- It reflects the way value can be achieved through identifying an 'X-factor' associated with a food product and moving it into a different space – in this case the health and wellness sector.
- Consumers are prepared to spend far more on their personal health and wellness than on food.
- The work Professor Peter Molan at the University of Waikato in New Zealand to identify the 'X-factor' in manuka honey (officially known as the 'Unique Manuka Factor' or UMF) which has powerful anti-bacterial effects has lifted the retail value of highly active manuka honey in international markets from a retail level of around US\$ 5 / kg ten years ago to over US\$ 120 /kg today.
- He developed a science based 0 – 20 scale that consumers and end-users can use to identify the activity level of the product they are buying. Only 10+ manuka honey is considered to be 'Active' in an anti-bacterial sense.



The 'Best Bet' Roadmap

An indicative roadmap of targets set, how they will be reached, and who is involved, in order to achieve the desired outcomes of this investment opportunity is shown in Table 1.

Table 1: Indicative road map for implementing the 'Cacao – Brown Gold' investment opportunity

Timing	What?	How?	Who?
Initial	<ul style="list-style-type: none"> • Tourist estate ID • Funding needs and sourcing 	<ul style="list-style-type: none"> • Evaluation • Consensus 	<ul style="list-style-type: none"> • Tourism groups? • S&T / commercial / govt
1st 6 months	<ul style="list-style-type: none"> • Identify Factor X and develop measurement plan • Plant improvement plan • ID alliances and partners • Plan for first tourist site + funding • ID ways of increasing plantings • Market research to ID value add opportunities 	<ul style="list-style-type: none"> • R&D • R&D • Networking • Benchmarking • ID barriers • Develop branding and marketing strategy 	<ul style="list-style-type: none"> • S&T community • S&T community • Market research • Tourism groups plus financier • Extension services / S&T • Market researchers / brand agencies
2nd 6 months	<ul style="list-style-type: none"> • Have a Factor X scale • Prime genetic material ID • Complete stage 1 tourist site development • Agree pricing strategy for Factor X scale 	<ul style="list-style-type: none"> • R&D + proofing • R&D • Construction project • Negotiations 	<ul style="list-style-type: none"> • S&T + end users • S&T community • Project manager • Sector / end-users

	<ul style="list-style-type: none"> Expand production base 	<ul style="list-style-type: none"> New plantings, Yield improvements 	<ul style="list-style-type: none"> Public /private JV?
Year 2	<ul style="list-style-type: none"> All estates have Factor X test Branding /marketing strategy launched First sales of scale-based product First 10,000 tourists through cacao experience Stage 2 tourist dev commences Built 'best value' value chains 	<ul style="list-style-type: none"> Line samples Smart networks and clever alliances By agreement Marketing and coordination Construction project ID best channels – real and virtual 	<ul style="list-style-type: none"> S&T community Blogs, virtual networks, Diaspora Premium buyers Tourist operators Project manager Market / sector research and action
Year 3	<ul style="list-style-type: none"> A doubling of revenues from all activities 	<ul style="list-style-type: none"> Control the market for high end cacao differentiated to the main commodity market 	<ul style="list-style-type: none"> S&T / Commercial / Government
Year 4	<ul style="list-style-type: none"> A doubling of revenues from all activities 	<ul style="list-style-type: none"> Marketing 	<ul style="list-style-type: none"> Commercial
Year 5	<ul style="list-style-type: none"> A doubling of revenues from all activities 	<ul style="list-style-type: none"> Marketing 	<ul style="list-style-type: none"> Commercial

Financial Summary

- The summary in Table 2 provides a 'best-guess' estimate of the potential revenues, expenses, and EBIT figures that could be achieved over a ten-year period based upon a business that focuses on developing added value products, including an 'X-factor' based range, derived from Trinitario cocoa.
- These estimates are based on an optimistic scenario focussed on achieving an outcome in the top 20% of the range of potential outcomes.

Table 2: Indicative financial projections for the 'Cacao – Brown Gold' investment opportunity

	By year 3	By year 6	By year 10
Revenue from value adding, new products, and tourism	US \$2,000,000	US\$ 9,400,000	US\$ 22,200,000
Basis of revenue figure	10,000 kg XF cocoa @ US\$ 2.00 each 40,000 units of new product @ US\$10.00 each 20,000 tourists @ US\$ 70 spend each	400,000 kg XF cocoa @ US\$ 3.50 each 300,000 units of new product @ US\$10.00 each 50,000 tourists @ US\$ 100 spend each	800,000 kg XF cocoa @ US\$ 4.00 each 1,000,000 units of new product @ US\$10.00 each 90,000 tourists @ US\$ 100 spend each
Capital expenditure	US\$ 830,000	US\$ 300,000	US\$ 300,000
Operating expenditure	US\$ 1,340,000	US\$ 6,466,000	US\$ 15,708,000
Earnings before interest and tax (EBIT)	US\$ 660,000	US\$ 2,934,000	US\$ 6,942,000

Note: This financial overview has not been subjected to detailed scrutiny. It is intended to be an example of what could be achieved in an optimistic scenario. Before making an investment commitment, it would need further development and to be subjected to due diligence.

The NEXT Star Rating for This 'Best Bet' Investment Opportunity



- Trinidad has the gene pool needed to develop a differentiated product focus.
- Considerable research work has already been done to identify an 'X-factor'.
- Trinitario cocoa is highly regarded internationally and demand exceeds supply.
- Considerable innovation and entrepreneurship is developing locally and globally in product concept development and marketing.
- There is a large pool of experience and already an estate based marketing association happening e.g. Gran Couva.
- Cocoa-based products are a preferred spend area for consumers.
- The health factors associated with cocoa have not been exploited in a concerted and science backed way.
- The biggest challenge will be growing sufficient Trinitario cocoa – but offshore production areas may prove to be the answer.
- It's a huge potential opportunity!

5.2 **Best Bet 2: - 'Trini Flava'**

The Investment Opportunity

- The primary business investment opportunity is **the development and branding of a range of 'Trini Flava' branded pre-prepared meals and snacks based around T&T's unique ethnic and fusion cuisine influences**. All the products would have a healthy and natural food focus. The products would be sold to specialist retailers, restaurant and fast food chains, and underpin the development of a unique global 'Trini Flava' franchise-based restaurant chain.
- The secondary business investment opportunity is **the development of a unique higher-end 'Trini-Flava' internationally franchised retail and experiential chain**. The theme for each outlet would reflect the unique ethnic and fusion cuisines, the culture, the music, the people, and the ambience that makes T&T different from any other place in the world.

The Customer Offer

- The offer would centre around a range of pre-prepared meals and snacks based around T&T ethnic and fusion cuisine concepts and made using healthy ingredients and high quality processes.
- These products would also be available as 'heat and eat' take home products that can be purchased from selected higher-end quality retail outlets.
- They would also be supplied as a specialist product line for existing upper-market fast food retail outlets and the catering sector.
- The products would also form the basis of a unique customer offer built around a completely new retail and experiential franchise operation 'Trini Flava' – which uses either imported product from T&T or T&T developed recipes and themes as the basis of the franchise concept.
- Each 'Trini Flava' outlet would include a restaurant area, a T&T 'deli' product sales area, and an experiential area e.g. where traditional 'Steel Pan' entertainment, T&T's fashion designers, and similar experiences could feature from time to time.
- Customers would also be able to purchase specialist beverages derived from unique T&T ingredients that enhance personal health, wellness, and performance (real and/or perceived). These could include components derived from well known sources such as bois bande, seamoss, 'X-Factor' Trinitario cacao, 'Red Hot Chillis', etc.
- The 'Trini Flava' franchise experience could be enhanced by reflecting seasonality/festivals in the market offerings e.g. Christmas, Carnival, Easter, Divali, Eid, etc. This would be accompanied by appropriately customised menu offerings, entertainment components, décor, etc.

Figure 7: The 'Trini Flava' offer



The Foresight Context For This Best Bet

- The rapid growth in the take home convenience foods and eating out food and beverage sectors.
- The trend towards more individualism amongst consumers – the move away from 'mass-market' experiences towards more customised and unique experiences.
- The growth in markets for ethnic and fusion products and services.
- The growth in adventure and immersion travel which stimulates the interest in follow up experiences once the travellers return home.
- The trend towards consumers allocating an increasing proportion of disposable income towards health and leisure related activities, products, and services.
- The trend towards 'healthy fast food'.
- The growing need for more frequent fascination experiences and more intense pleasure-based experiences.
- The growing 'Age Defiance' market – which not only relates to food and beverage products consumed but also the blurring boundaries between the musical, experiential, and lifestyle demands between different generational cohorts.

- The growing interest in gourmet products and ‘total immersion experiences’ built around fine foods, beverages, and interaction between participants. The growing global ‘Slow Food Movement’ is an excellent example.

Target Markets

- Selected cities with the right sort of ethnic base and/or a strong T&T/Caribbean Diaspora along with the rapidly increasing numbers of middle and upper income earners within those groups e.g. Toronto, London, and other selected US cities. There may also be some exciting opportunities at the high end of markets in selected cities in India and China e.g. Bangalore and Shanghai – where the T&T fusion influences could connect with a growing desire to try new things.
- The Diaspora is important because it is highly likely that they would associate themselves and introduce non-Caribbean colleagues and business associates to the ‘Trini Flava’ offer, provided it was well presented and professionally implemented.
- The targeting would be particularly aimed at those who lead busy lives - working couples, professional singles, people who need ‘gifts of time’ and are likely to try something new. These are likely to be prime ‘take home’ and ‘eat out’ customers who expect a quality product and/or service.
- Customers who have a penchant for ethnic experiences either because of their global travels or through a personal fascination in ethnic and fusion products and/or services.
- Higher end customers with a focus on personal health, wellness, and performance enhancement.
- The franchise model would be designed to present an offer that would appeal to consumers at the ‘TGIF’ or higher end of the market – not the McDonald’s end.

What We Have

- One of the key things that we have is the generally positive view most wealthy potential customers have of the Caribbean – a colourful place with colourful people, wonderful food, swaying palm trees, music, and a laid back lifestyle.
- Rapid growth in the market for finished meals, specialist beverages, and quality eating out options with an ethnic flair in many developed economies.
- Rapidly developing cities in fast growing economies e.g. Bangalore and Shanghai that have increasing numbers of middle and upper income earners searching for new experiences.
- Strong T&T and Caribbean country Diasporas - especially in North America and the UK.
- Afro-cuisine is growing in popularity in wealthy niche markets.
- Health, wellness, and performance enhancement associations already exist for a number of existing T&T food and beverage products e.g. Angostura Bitters.
- The fusion impact, that has already had a big influence in the T&T cuisine scene, provides a basis for unique new product offers that should appeal to the high-end consumers in key niche markets.
- A strong cultural heritage that already is reflected in combinations of cuisine, entertainment, and creativity – largely within T&T.
- Considerable local experience in developing these types of food beverage concepts, production, and marketing.

- Internationally recognised brands e.g. Angostura.
- Supplies of raw materials.
- Strong cultural connections around the world – Africa, Indian, Syrian, Chinese, European.
- Considerable home country and regional experience in developing and commercialising franchise concepts that compete very successfully with major international franchises.

What We Need

To take this ‘Best Bet’ from where it is today – a relatively fragmented production and marketing sector with a range of smaller to larger players plus a franchising sector which tends to have a strong focus on the lower end of the market in local and regional locations - to a point where it makes a significant and valuable economic and social contribution to T&T, a number of areas need to be addressed.

From the Private Sector

- Finalisation of a package of offers that could be supplied to different markets - from frozen, chilled or other forms of ready to use products through to a complete franchising concept.
- A marketing approach that includes an overarching product selection, design, packaging, branding strategy.
- Identification and development of the most efficient value chain, from T&T’s perspective, right through from accessing raw materials to connecting with end consumers – this may include an Internet component and leveraging cultural and Diaspora linkages.
- Developing suitable and attractive packaging that ensures shelf life, optimises presentation, assures ‘pick-up-ability’, addresses safety standards requirements, and internationally acceptable failsafe QA/QC systems.
- Developing key alliances and partnerships to support business development in key markets.
- Developing and finalising IP and trademark protection strategies.
- Identifying investment partners and entrepreneurs.
- Developing and testing the right product offer, in all aspects, that communicates the ‘Trini Flava’ experience to customers in a manner that they will appreciate while meeting all relevant international best practices and standards for food handling and service delivery.
- Agreement on the final ‘Trini Flava’ franchise concept and design i.e. whether it is purely Trinidadian, Caribbean, or an amalgam of both, and the image that will be projected.

From the Public Sector

- Recognition that T&T’s cultural and ethnic cuisine and creativity resource and the associated accumulated knowledge and expertise are valuable assets that can contribute significantly to T&T’s future economically and socially.
- A new strategic focus in the way the T&T ethnic cuisine offer is presented to the world through government agencies built around foresight-based growth opportunities.
- An integrated approach within a national growth and innovation framework that provides a long-term direction for the food and beverage sector and

which has a clear, harmonised strategy of development with the dedicated resources of manpower, finance, institutional supports, private sector involvement, and community involvement.

- Developing and managing systems for compliance with international food and beverage sector obligations and standards.
- Identifying opportunities for IP protection in areas related to internationally marketable product, branding and franchise opportunities, and securing the rights as an intellectual capital asset for the country.
- Funding new areas of research that have a strong foresight focus and break away from the traditional 'academic' focus.
- Accelerating the commercialisation of IP that currently exists in many state and regional research institutions as well as the commercialisation of research project outcomes with potential through public/private partnerships.
- Improved infrastructure such as roads and the quality and cost of telecommunications – in particular Internet access and speeds.
- Speeding up and improving the effectiveness of the cross-border authorities, both at home and abroad. For example, exporting to the USA is becoming challenging.
- Increased capacity and investment in training specialist people for the food and beverage sector along with an offer of higher-level degree and diploma qualifications.
- Better collection and speedier processing of statistical data.

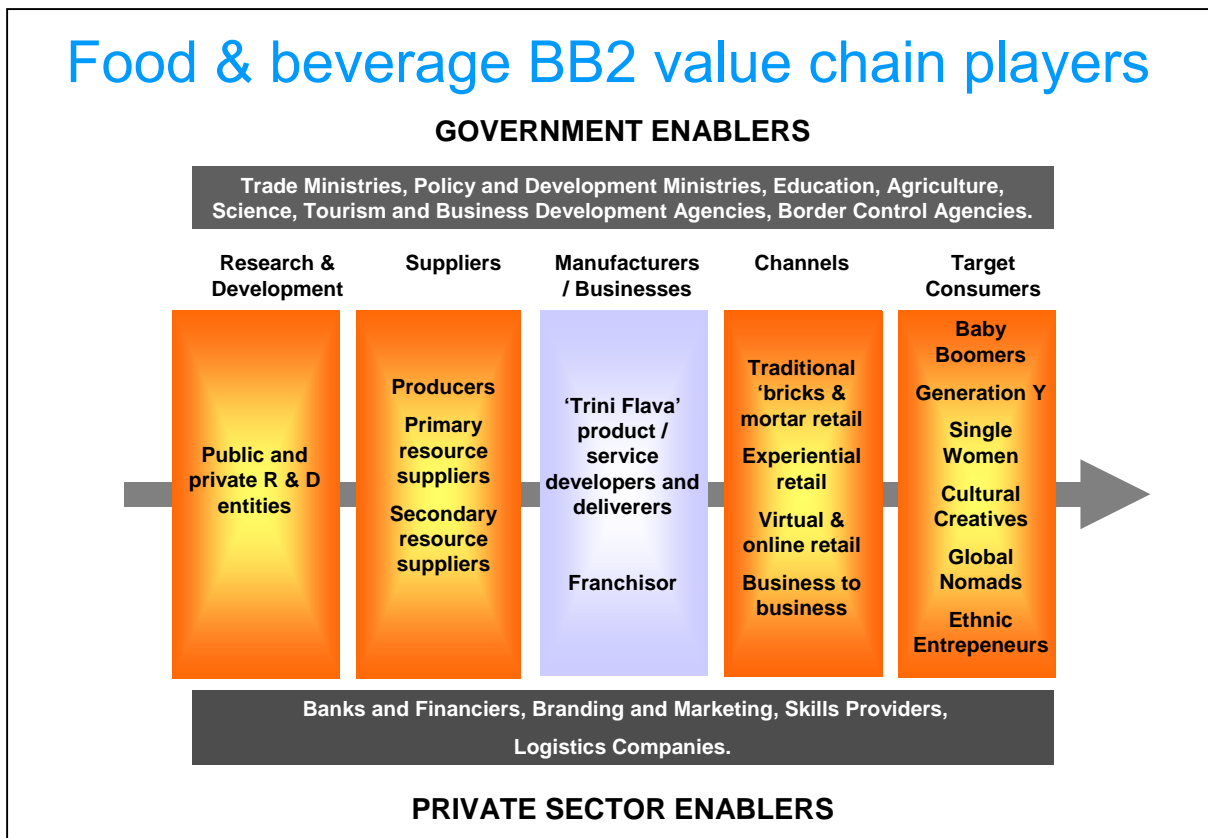
From R&D

- The development of linkages between universities and research centres and commercial operators to develop more innovation in the areas of product development, process engineering, and factory design.
- The development of unique new products using indigenous ingredients
- Research into areas such as packaging technology and quality preservation for 'ready to use' meal solutions.
- Market research in areas such as:
 - Testing new product concepts.
 - Identifying target consumer groups and the best channels for connecting and interacting with them.
 - A highly attractive and marketable franchising concept.

Best Bet Value Chain

This 'Best Bet' centres largely on the 'Manufacturer / Business' components of the value chain as shown in Figure 8. The prime need is to drive joint public - private sector initiatives to leverage greater value from the existing T&T based food and beverage sector by taking a more innovative approach built around local resources and ethnic and cultural differentiators. However, these components are of little value unless all the other value chain components are aligned in the same direction towards a common medium to long-term goal.

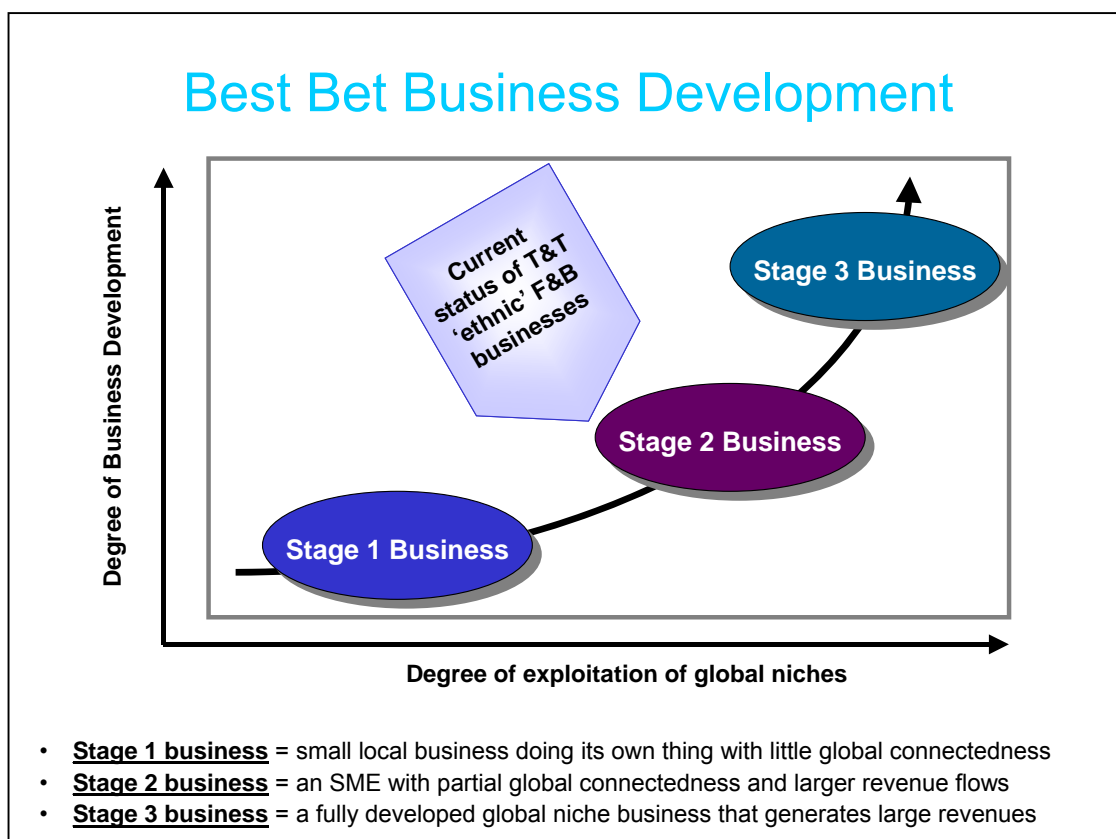
Figure 8: The 'Trini Flava' value chain



Key Local Players, Entrepreneurs and Offshore Examples

- There are many businesses connected with the food and beverage sector in T&T. Some are operated by both traditional local operators and entrepreneurs whilst others are owned and operated by large offshore groups - such as Nestle and Pernod – or are part of major global franchises such as TGIF, KFC, and MacDonalads.
- Selected members within these groups – the more entrepreneurial and innovative - could contribute to realising the potential value of a T&T 'Best Bet' investment built around leveraging greater value from the country's ethnic and cultural heritage in the food and beverage and related experiential areas.
- In spite of a considerable amount of research and investment, the level of commercial development of high-value niche opportunities associated with this 'Best Bet' in T&T still offers a great deal of potential. We feel it is at about the point illustrated in Figure 9.

Figure 9: The stage of development of businesses in T&T associated with the 'Trini Flava' investment opportunity



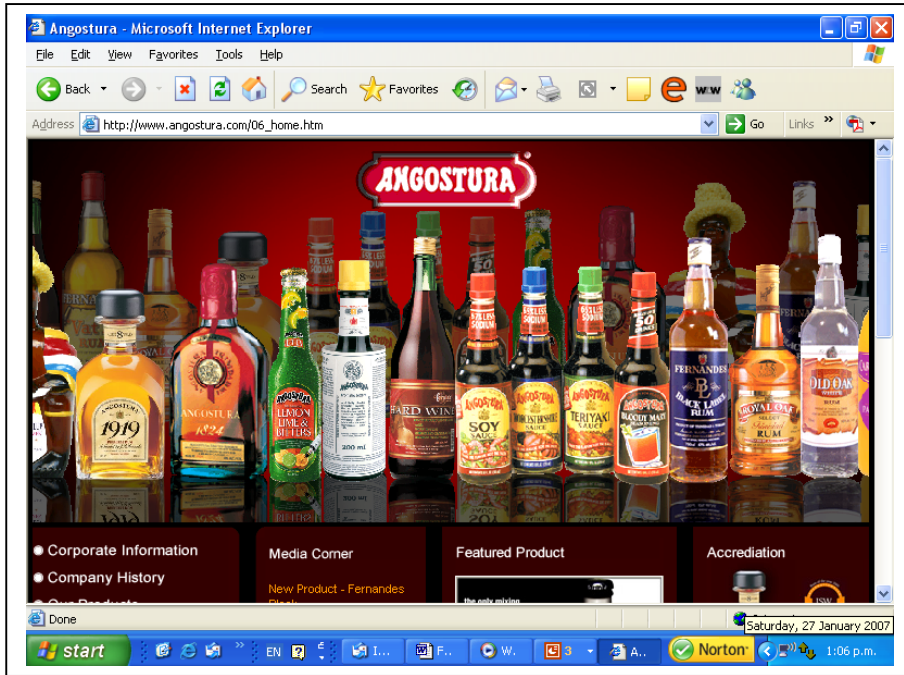
Local food and beverage entrepreneurs

There are many players in this area in T&T. We have chosen just two examples of entrepreneurship – one large and one small – to illustrate the possibilities of developing a 'Trini Flava' business built on T&T innovation.

Angostura - <http://www.angostura.com/>

This is a real T&T success story in the food and beverage sector. The company has developed into a very successful niche global player with a range of food and beverage products, many of which have local and regional ingredients. It has a strong brand, a smart network of regional marketing and distribution alliances, and has been quite innovative in its whole approach to business.

The 'Angostura' brand is well known around the world – especially with regard to Angostura Bitters – a beverage product with a health and wellness association.



Tropicke -

http://www.nedco.gov.tt/index.php?option=com_content&task=blogcategory&id=20&Itemid=32

Indar and Chitra Deosingh are excellent examples of innovative entrepreneurs in T&T's food and beverage sector. They have developed a range of uniquely T&T raw material based gourmet food products using their own unique recipes. They have invested a great deal of time into testing products with potential customers to ensure they met the most discerning of needs.

This is real 'Trini Flava' food!



In the franchise field there are a number of players who have considerable expertise in developing and marketing franchises. They include:

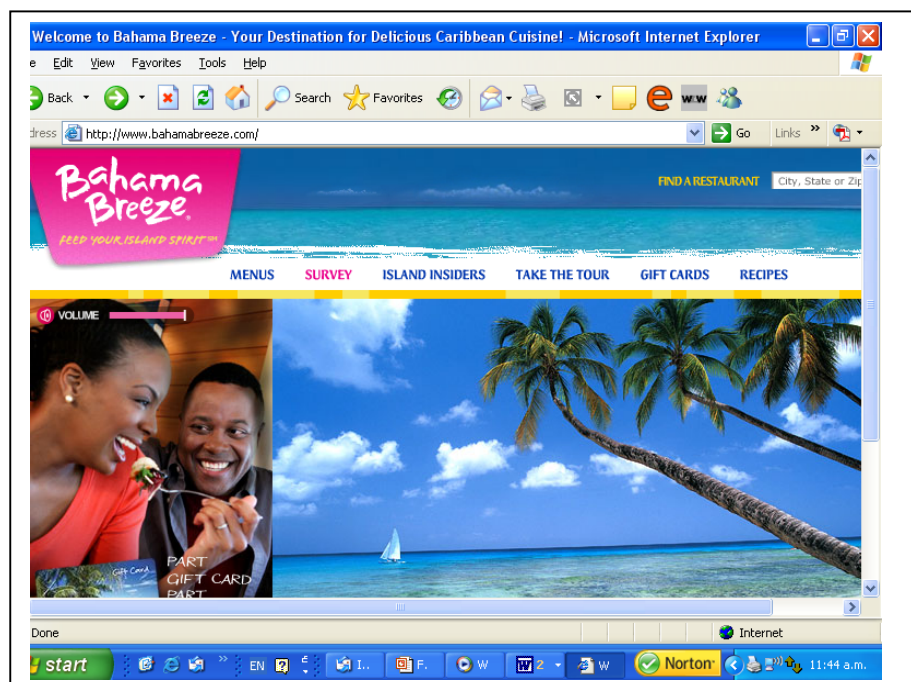
- **Mario's Pizza** - a pizzeria chain started by a local entrepreneur who emigrated to T&T from Canada in the early 1970's. The company also owns Blimpies which operates in the rapidly growing sandwich segment of the market. They are largely based in T&T but are moving into other countries including Grenada and Guyana.
- **Prestige Holdings** – who are T&T based and have a number of regional master franchises ranging from the low-end fast food segment (KFC) through to the more upmarket TGIF. They operate in a number of Caribbean countries.
- **International Castle** – another T&T based franchise operation that owns the Royal Castle brand and operates in several CARICOM countries. It has closed a number of franchises in recent years and tends to focus more on services in future.
- **Pizza Boys** – a highly successful T&T based franchise operator that has developed franchise chains from the lower to higher end of the market in both T&T and Guyana. The Rituals café chain is an example of a more upmarket franchise.

Offshore examples

Again, there are numerous examples of successful franchises internationally that have grown because of their indigenous resource, cultural, and ethnic associations. Following are several innovative examples.

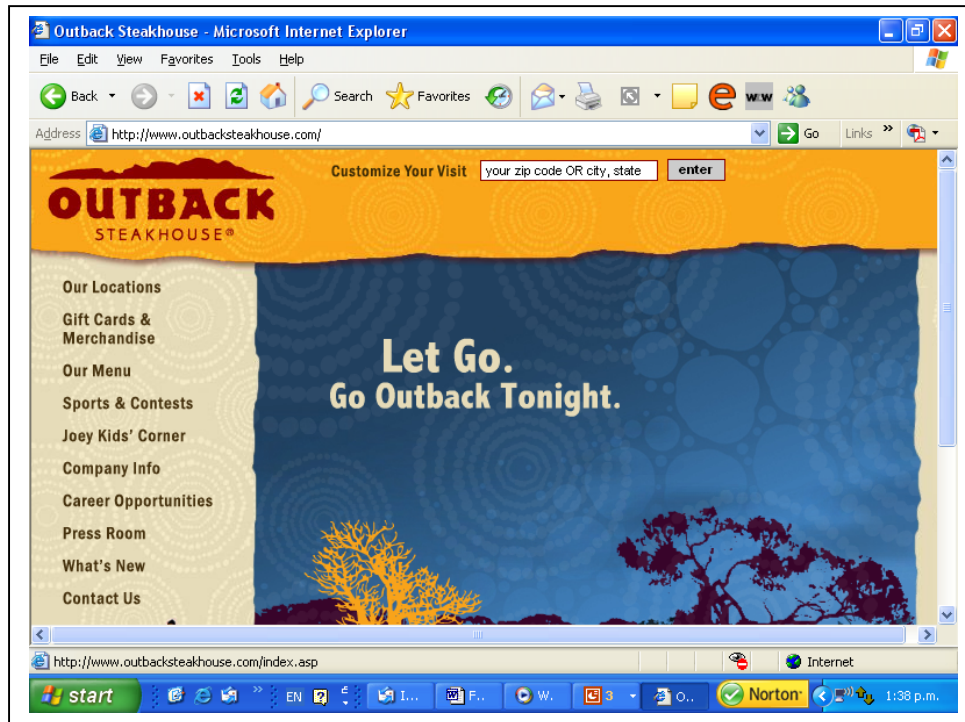
Bahama Breeze <http://www.bahamabreeze.com/>

Whilst this chain of US restaurants does not offer a franchising opportunity, it has used the Bahama's connection as the theme. All the restaurants in the chain have a standardised theme, décor, menu and customer service focus. It's a good example of a more upmarket Caribbean themed restaurant chain.



Outback Steakhouse <http://www.outbacksteakhouse.com/>

This highly successful franchise chain is based in the USA but operates in a number of countries. The key differentiating factor is the chain's theme and menu set up which is strongly built around Australian outback themes.



The Best Bet Roadmap

An indicative roadmap of targets set, how they will be reached, and who is involved, in order to achieve the desired outcomes of this investment opportunity is shown in Table 3.

Table 3: Indicative road map for implementing the 'Trini Flava' investment opportunity

Timing	What?	How?	Who?
Initial	<ul style="list-style-type: none"> Select 3 – 5 initial target markets Select 3 -5 initial product focus areas Identify key market delivery options 2 – 3 Identify parties who are prepared to back the project - funding 	<ul style="list-style-type: none"> Market Research and Consensus Market Research and Consensus Market Research and Consensus Networking and consensus 	<ul style="list-style-type: none"> Market researcher, commercial Market researcher, S&T, commercial Market researcher, S&T, commercial Commercial + govt + investors
1st 6 months	<ul style="list-style-type: none"> Identify local alliance partners Identify partners in key markets T&T Business entity to drive project identified 	<ul style="list-style-type: none"> Sector Research Sector Research Consensus 	<ul style="list-style-type: none"> Govt, commercial Researcher Market researcher, IP expert

	<ul style="list-style-type: none"> • Draft franchise concept developed • Define QA and QC system and get Government backing 	<ul style="list-style-type: none"> • Market research, legal • Legislation plus training and syllabus 	<ul style="list-style-type: none"> • S&T Community, commercial, govt • Commercial, govt.
2nd 6 months	<ul style="list-style-type: none"> • Long-term financing for TT business entity identified • First product trials in T&T completed • First packaging trial completed • Best value chain identified • Branding completed • Marketing Strategy completed • Franchise concept agreed 	<ul style="list-style-type: none"> • Consensus and commercial • R&D • R&D • Sector Research • Brand design • Market Research • Market Research 	<ul style="list-style-type: none"> • Govt + investors • S&T Community, commercial • S&T Community, commercial • Market researcher • Branding specialist • Market Researcher • Commercial
Year 2	<ul style="list-style-type: none"> • First trial deliveries made to selected offshore markets • Assessment of trial deliveries and correction of problems • Finalize best value chain • First commercial deliveries • First 'Trini Flava' franchise outlet opened in a key offshore market • Sales target of US\$ 1 Million 	<ul style="list-style-type: none"> • Trial shipments with selected alliance partners • Review and upgrade process • Consensus • Commercial contract • Commercial franchise contract 	<ul style="list-style-type: none"> • S&T, commercial • S&T, commercial • Commercial • Commercial • Commercial
Year 3	<ul style="list-style-type: none"> • Sales target of US\$ 3 Million • 3 'Trini Flava' franchise outlets opened 	<ul style="list-style-type: none"> • Marketing and management 	<ul style="list-style-type: none"> • Commercial
Year 4	<ul style="list-style-type: none"> • Sales target of US\$ 1 Million • 5 'Trini Flava' franchise outlets opened 	<ul style="list-style-type: none"> • Marketing and management 	<ul style="list-style-type: none"> • Commercial
Year 5	<ul style="list-style-type: none"> • Sales target of US\$ 1 Million • 10 'Trini Flava' franchise outlets opened 	<ul style="list-style-type: none"> • Marketing and management 	<ul style="list-style-type: none"> • Commercial

Financial Summary

- The summary in Table 4 provides a 'best-guess' estimate of the potential revenues, expenses, and EBIT figures that could be achieved over a ten-year period based upon a business that focuses on selling high quality 'Trini Flava' ready to use meals, beverages and operates an associated franchise licensing operation.
- These estimates are based on an optimistic scenario focussed on achieving an outcome in the top 20% of the range of potential outcomes.

Table 4: Indicative financial projections for the ‘Trini Flava’ investment opportunity

	By year 3	By year 6	By year 10
Revenue from product sales and franchise fees	US \$ 7,300,000	US\$ 65,500,000	US\$ 150,500,000
Basis of revenue figure	200,000 units of product @ US3.00 each 3 franchises @ US\$100,000 each 1,000,000 beverage units @ US\$ 1.00 each	1,500,000 units of product @ US4.00 each 15 franchises @ US\$100,000 each 5,000,000 beverage units @ US\$ 1.00 each	3,500,000 units of product @ US4.00 each 25 franchises @ US\$100,000 each 8,000,000 beverage units @ US\$ 1.00 each
Capital expenditure	US\$ 1,750,000	US\$1,000,000	
Operating expenditure	US\$5,332,000	US\$ 48,220,000	US\$ 111,320,000
Earnings before interest and tax (EBIT)	US\$ 1,968,000	US\$ 17,280,000	US\$ 39,180,000

Note: This financial overview has not been subjected to detailed scrutiny. It is intended to be an example of what could be achieved in an optimistic scenario. Before making an investment commitment, it would need further development and to be subjected to due diligence.

The NEXT Star Rating for This ‘Best Bet’ Investment Opportunity



- There are major opportunities in the growing higher end gourmet and ethnic foods markets.
- T&T has a range of unique ingredients along with ethnic and fusion cuisine styles that could readily be leveraged far more than they currently are.
- The country has a large pool of expertise in the food processing, marketing, and franchise conceptualising and commercialising.
- The world has a generally strongly positive view of the Caribbean, its people, and the cultural and ethnic influences.
- The biggest challenge is for the entrepreneurs and government of Trinidad to recognise the relatively untapped value that lies within the country’s unique ethnic and cultural heritage.

5.3 **Best Bet 3: - ‘Red Hot Peppers – Soca Fire’**

The Investment Opportunity

- The primary opportunity is to the establishment of **a business that develops and markets a range of products that are derived from T&Ts extremely hot *Capsicum Chinese* ‘Red Hot Peppers’**. Product development, differentiation, branding, and smart marketing are the key capabilities this business will require to extract the type of value this ‘Best Bet’ could potentially achieve.
- The secondary opportunity is to **develop non-food products that arise from ingredients that are derived through food and beverage sector related processes** that can produce high quality extracts or derivatives from the hot pepper raw material resource.

The Customer Offer

- The main differentiating factor for customers is the availability of a range of hot pepper derived products which have a science-based rating that gives them an accurate measure of the potency of the chilli content.
- That potency scale may relate only to the capsaicin content of the particular product line – but could also be further developed over time to include other components that have beneficial impacts in other areas such as human health and wellness and industrial applications.
- The pricing of products will be directly related to the potency factor – whether for gourmet, health and wellness, or industrial purposes, and customers will know what they are paying for. This would represent a considerable advance on the current largely ‘guess-based’ measures of chilli potency factors.
- In addition to the potency scale, the food and beverage area the offer would include products with the following focuses:
 - Specialist gourmet products linked to ethnic/exotic cuisine for high-end existing and developing markets – e.g. ‘Trini-Flava’ branded products. These would include a range of options including ‘hotness’ levels e.g. superhot, moderately hot, mild, as well as chilli based seasonings and pickle.
 - Natural and organic products
- Specialised health and wellness products along with supplements and derivatives including:
 - Highly specialised medical derivatives and products for internal and external use e.g. for topical use to help with arthritis, itching, etc. The US FDA has approved creams and ointments containing up to 0.075% of capsaicin as over the counter remedies for arthritis and muscle soreness.
 - Derivate products for oral use, for example to help with digestive complaints.
 - Combinations with other ingredients to create novel new health and wellness products e.g. Trinitario cocoa.

- An offer of food and beverage sector derived extracts and derivatives from hot peppers that can be used to develop Industrial applications. These might include:
 - Animal repellents e.g. paint additive to boat hulls to repel barnacles, bio-repellent for ants etc.
 - Non-lethal force - e.g. pepper sprays.
 - Anti-fouling agents in the marine sector.
- The offer could be further extended into tourism related opportunities such as being linked into exotic ethnic cuisine experiences, health and wellness experiences, and immersion tourism experiences – such as visits to hot pepper growing and processing sites.
- Customers can also use an on-line marketing portal that links Trinidad and Tobago branded products to both offshore consumers and wholesalers who wish to order stock (a two tier pricing structure and portal access function).

Figure 10: The ‘Red Hot Peppers – Soca Fire’ offer



The Foresight Context For This Best Bet

- A key trend driving opportunities associated with this 'Best Bet' investment opportunity is the growing need for more frequent fascination experiences and more intense pleasure-based experiences.
- Another is the growing focus on improving personal health and wellness in all aspects of daily living and in the food and beverage product area – the rapid growth in sales of healthy and organic foods, supplements, nutraceuticals, and novel products.
- There is also an increasing preparedness to pay large premiums for health and wellness, experiential and 'Age Defiance' products, particularly those with some form of verification.
- The growth in high value gourmet niche food and beverage products.
- Increasing individualism and egoism – driving demand for things that are different and unique.
- The growth in sales of products and services associated with leisure activities – the experiential market – a preferred area for consumers to spend a greater proportion of disposable income.
- The trend towards more sustainable industrial solutions that are based on renewable resources and have minimal negative environmental impacts.

Target Markets

- The T&T Diaspora is an important global network with centres of strength in places such as Toronto in Canada and London in the UK which understands what hot peppers are and can introduce the products offered to a wider audience of potential consumers.
- In addition, upper end consumer segments in mature markets such as the USA, UK, and Canada, Japan, and Korea – perhaps also in some of the emerging Eastern European countries such as Slovakia and Croatia where hot chilli is part of the local cuisine heritage – would be targeted.
- Another group of importance is the rapidly growing middle and upper income groups in China, India, particularly in areas where more spicy cuisines are part of the local culture.
- Opportunities may also exist in Thailand, Malaysia, Hong Kong, and Singapore in both the health and wellness and high-end cuisine areas.
- Channels such as gourmet food and health food stores; developers and marketers of health and wellness products aimed at upper end consumers.
- Rapidly growing organic market opportunities – especially in the processed product field in both the food and health and wellness sectors.
- The industrial solutions development sector – customers looking for unique ingredients that can provide sustainable renewable resource-based ingredients for industrial applications in a wide range of areas.

What We Have

- The Caribbean pepper, *Capsicum Chinese*, which has a pungency and flavour that is distinctive and unique. The hottest pepper varieties in the world are derived from this species.
- *Capsicum chinese* has a higher capsaicin (or capsaicinoids) content (actually a combination of several complex compounds – namely capsaicin 69%,

dihydrocapsaicin 22%, and three minor related components comprising 9%) - than the more generally utilised capsicum annum. This is the active principle in hot peppers and could provide the basis for a competitive advantage in certain applications e.g. health and wellness and industrial applications.

- A pool of unique genotypes of the *C. Chinese* species i.e. a germplasm bank
- An agricultural production base in T&T (currently around 6750 tonnes annually) with experience in growing peppers as a raw material along with a history of commercial production, processing and marketing – in particular of pepper-based sauces.
- A number of established brands that are built around the concept of Trinidad being a specialist producer and supplier e.g. Matouk and Chatak.
- R&D expertise in this area e.g. at UWI, CARDI and the Ministry of Agriculture.
- A climate that favours the production of hot peppers.
- Established producers and marketers who could support further development of a global niche business built around these raw materials.
- Rural and research and development incentives from the T&T government.
- Existing 'hotness scales' such as the Scoville Heat Units (SHU) and high performance liquid chromatography derived ASTA pungency units that provide a starting point for developing a more innovative scale development.

What We Need

To take this 'Best Bet' from where it is today – a sector that has considerable expertise but has been relatively narrowly focussed in the innovation and value extraction area - to a point where it makes a significant and valuable economic and social contribution to T&T, a number of areas need to be addressed.

From the Private Sector

- The urgent and primary need is for entrepreneurs who can extract greater value from the market place for a unique raw material resource by being more innovative in the product development, branding, and marketing areas.
- To do this will required increased production of the raw materials – currently a limiting factor.
- The development of the appropriate packaging and labelling to best match retailer and end-customer needs.
- Market intelligence and a marketing strategy to support, promote, and develop markets for new and existing products.
- The development of recipes for new and innovative products with hotness options ranging from mild through to fiery.
- A branding strategy which includes a unique T&T association with the products developed.
- A simple customer-friendly capsaicin content rating on all products as a differentiating and quality assurance indicator.
- A focus on organic and 100% natural products and the associated accreditation, certification and monitoring systems.
- Proper post-harvest handling of products.
- Venture capital to finance investment opportunities which have been identified.
- Additional incentives for research and development.

From the Public Sector

- Recognition that T&T's red hot pepper production, production, and marketing resource, and the associated accumulated knowledge and expertise, are valuable assets that can contribute significantly to T&T's future economically and socially.
- A new strategic focus in the way the T&T product offer is presented to the world through government agencies built around foresight-based growth opportunities.
- Developing and managing systems for compliance with international food and beverage sector obligations and standards.
- An integrated approach within a national growth and innovation framework that provides a long-term direction for the food and beverage sector and which has a clear, harmonised strategy of development with the dedicated resources of manpower, finance, institutional supports, private sector involvement, and community involvement.
- Identifying opportunities for IP protection in areas related to internationally marketable products, branding opportunities, and securing the rights as an intellectual capital asset for the country.
- Funding new areas of research that have a strong foresight focus and break away from the traditional 'academic' focus.
- Accelerating the commercialisation of IP that currently exists in many state and regional research institutions as well as the commercialisation of research project outcomes with potential through public/private partnerships.
- Improved infrastructure such as roads and the quality and cost of telecommunications – in particular Internet access and speeds.
- Infrastructure improvements in production areas e.g. proper drainage and irrigation programmes to facilitate improved growing conditions.
- Increased availability of high quality agricultural land which is currently locked up in government ownership and not being effectively utilised.
- Speeding up and improving the effectiveness of the cross-border authorities, both at home and abroad.
- Increased capacity and investment in training specialist people for the food and beverage sector along with an offer of higher-level degree and diploma qualifications.
- Better collection and speedier processing of statistical data.

From R&D

- Develop a simple customer-friendly capsaicin (and/or other key potential value-related components) content rating that is based on good science and can be used on all products as a differentiating and quality assurance indicator.
- R&D into new varieties and protection for newly developed elite cultivars through the application of plant variety rights.
- R & D into production process and potential new products including nutraceuticals, health and wellness products, and industrial end-use applications for derivatives from the hot peppers.
- Greater collaboration between researchers in Trinidad and Tobago and in the Caribbean.

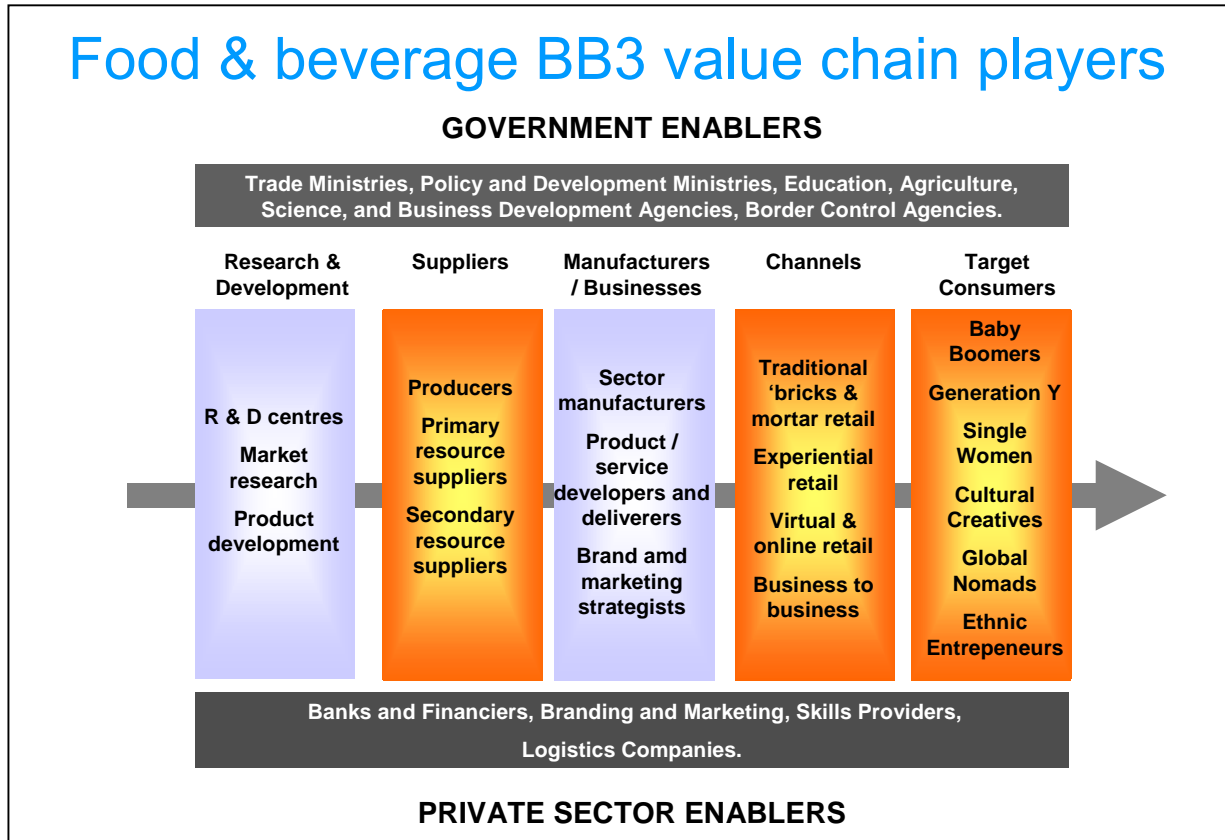
- The development of linkages between universities and research centres and commercial operators to develop more innovation in the areas of product development, process engineering, and factory design.
- The development of innovative new products using the unique *C. chinese* genetic resource.
- Market research in areas such as:
 - Testing new product concepts.
 - Identifying target consumer groups and the best channels for connecting and interacting with them.
 - Potential industrial application areas.

Best Bet Value Chain

This 'Best Bet' centres largely on the 'Manufacturer / Business' components of the value chain. However, the 'Research & Development' component is crucial to the success of this 'Best Bet' – particularly in the area of developing a rating scale that enables end-users to understand clearly what the 'potency' factor is of the products they wish to purchase.

The prime need is to drive joint public - private sector initiatives to leverage greater value from the existing T&T based hot pepper sector by taking a more innovative approach built around local resources and differentiators. However, these components are of little value unless all the other value chain components are aligned in the same direction towards a common medium to long-term goal.

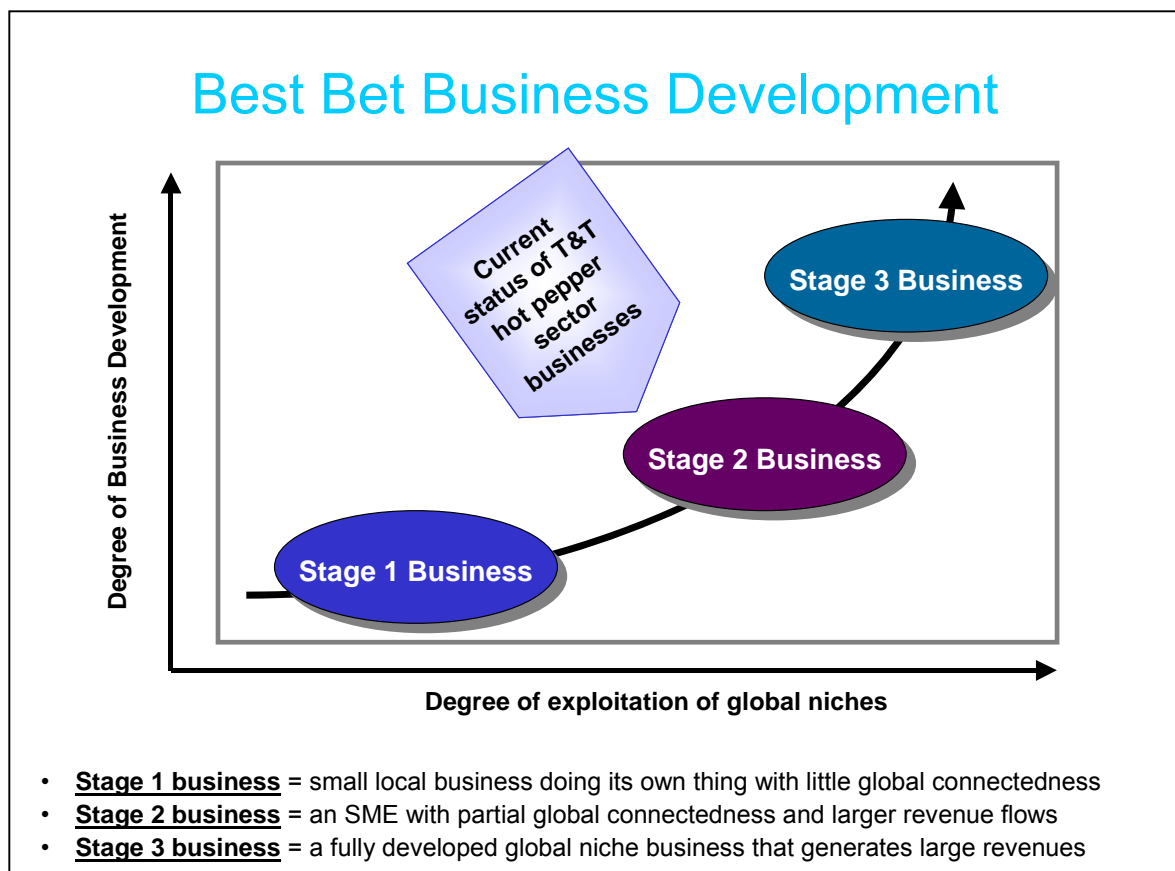
Figure 11: The 'Red Hot Peppers - Soca Fire' value chain



Key Local Players, Entrepreneurs and Offshore Examples

- There are a number of key local players and entrepreneurs who have many years of experience and high levels of expertise relevant to this 'Best Bet'. In addition, there are many businesses already set up and operating successfully in the sector, some on a relatively large scale, that could contribute to leveraging the potential value of a T&T 'Best Bet' investment built around this opportunity.
- At present the level of commercial development of high-value opportunities associated with this 'Best Bet' already includes an international focus. However, we feel there is a need to be far more innovative in identifying and exploiting the niche growth opportunities that other entrepreneurs are beginning to do offshore.
- We feel the businesses and support structure associated with this 'Best Bet' is at the level shown in Figure 12.

Figure 12: The stage of development of businesses in T&T associated with the 'Red Hot Peppers – Soca Fire' investment opportunity



Local food and beverage entrepreneurs

There are a number of players in this area in T&T. We have chosen several examples to illustrate the predominant current focus – one large, one small. However, it is interesting to note that few, if any, appear to have websites on the Internet. Their products are featured on numerous offshore on-line hot sauce specialist retail sites.

Matouk's -

http://www.hotsauce.com/Trinidad_Hot_Sauces_HotSauce_com_s/47.htm

This is one of T & T's larger food processing companies. However, we have been unable to find a company website. They are particularly well known locally and internationally for their hot pepper sauces. The following website is for a US hot sauce specialist retailing group which features a number of Matouk's products.



Caribbean Specialty Foods Co. Ltd. Ms Hesma Tyson, San Juan, Trinidad & Tobago

Ms Tyson is the owner of a small entrepreneurial company that has developed a range of unique gourmet style hot sauces, pickles and jams. She uses innovative combinations of ingredients to come up with some interesting new product concepts. She does not have a website.



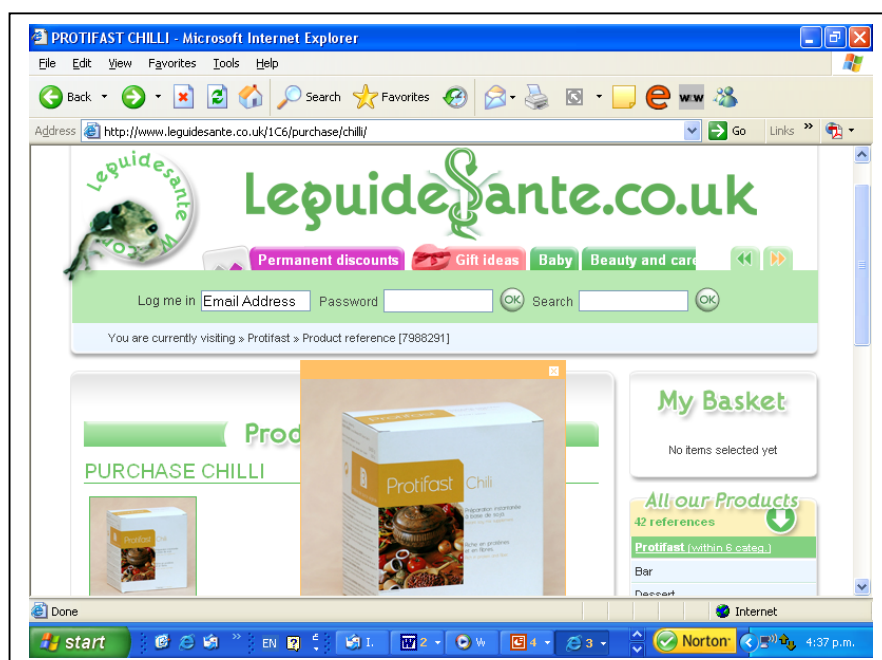
Examples of Caribbean Specialty Foods Ltd. products

Offshore examples

The focus here is on innovative concepts that offshore entrepreneurs have developed around the hot pepper theme.

Leguidesante <http://www.leguidesante.co.uk/1C6/purchase/chilli/>

This is a UK online retail channel for health and wellness products. One of the featured products is 'Protifast Chili'.



Disaster Bay Chillies – Australia

<https://secure2.netspeed.com.au/disasterbaychillies/shopping.cfm>

We have included this company because they have won numerous international awards for their highly innovative and unique chilli based gourmet products. These include chilli wine, chilli jelly, 'Lemon Stinger Marmalade', 'Hot Chocolate Lemon Peel' and more. They also produce high-class gift packs.

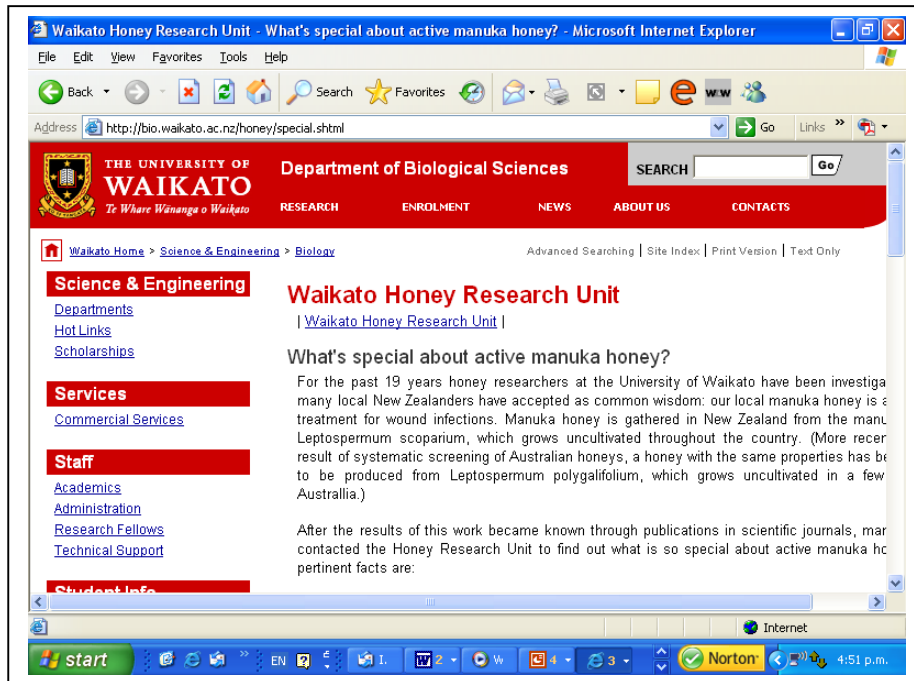


Waikato Honey Research Unit <http://bio.waikato.ac.nz/honey/special.shtml>

This is an important site for any business looking to add value to basic food products through the application of science and innovation.

It backgrounds the development of the UMF rating system, described in the 'Cocoa - Brown Gold' Best Bet investment opportunity earlier in this Chapter, which has lifted the value of commodity priced manuka honey from US\$ 5.00 / kg to US\$ 120.00 /kg retail if it has a rating of 10+ on a 20 point rating scale developed by entrepreneurial Professor Peter Molan.

The rating scale has shifted the value proposition associated with this type of honey, derived from particular genotypes of the indigenous manuka bush which grows wild over extensive areas in New Zealand, from being a low value food product to being a high value health and wellness product.



The Best Bet Roadmap

An indicative roadmap of targets set, how they will be reached, and who is involved, in order to achieve the desired outcomes of this investment opportunity is shown in Table 5.

Table 5: Indicative road map for implementing the 'Red Hot Peppers – Soca Fire' investment opportunity

Timing	What?	How?	Who?
Initial	<ul style="list-style-type: none"> Select 3 - 5 initial target markets Select 3 – 5 initial new product focus areas Identify key market delivery options 2 - 3 Identify parties who are prepared to back the project - funding 	<ul style="list-style-type: none"> Market research and consensus Market research and consensus Market research and consensus Networking and consensus 	<ul style="list-style-type: none"> Market researcher, commercial Market researcher, S&T community, commercial Market researcher, S&T community, commercial Commercial + govt + investors
1st 12 months	<ul style="list-style-type: none"> Capsaicin scale research commences First new product trials in T&T completed First packaging trials completed Branding completed Marketing strategy completed Alliance partners in key markets identified 	<ul style="list-style-type: none"> R&D R&D R&D Market research Market research Sector research 	<ul style="list-style-type: none"> S&T community S&T community, commercial S&T community, commercial Market researcher Market researcher Market researcher

	<ul style="list-style-type: none"> • Best value chain identified • T&T business entity to drive the project finalised with investment backing • QA/QC system defined and backed by govt • Draft franchise concept developed 	<ul style="list-style-type: none"> • Sector research • Consensus • Legislation plus training and systems • Market research + legal 	<ul style="list-style-type: none"> • Market researcher • Commercial, investors • S&T community, commercial, govt. • Market researcher, legal, IP specialist
1st 12 months	<ul style="list-style-type: none"> • Capsaicin scale research completed • First trial deliveries made to selected offshore markets • Assessment of trial deliveries and correction of problems • Finalise best value chain • First commercial deliveries 	<ul style="list-style-type: none"> • Research project • Trial shipments with selected alliance partners • Review and upgrade process • Consensus • Commercial contract 	<ul style="list-style-type: none"> • S&T community • S&T community, commercial • S&T community, commercial • Commercial • Commercial
Year 2	<ul style="list-style-type: none"> • Sales target of US\$1 million achieved 	<ul style="list-style-type: none"> • Product development and marketing 	<ul style="list-style-type: none"> • S&T and commercial
Year 3	<ul style="list-style-type: none"> • Sales target of US\$ 5 million achieved 	<ul style="list-style-type: none"> • Product development and marketing 	<ul style="list-style-type: none"> • S&T and commercial
Year 4	<ul style="list-style-type: none"> • Sales target of US\$ 10 million achieved 	<ul style="list-style-type: none"> • Product development and marketing 	<ul style="list-style-type: none"> • S&T and commercial
Year 5	<ul style="list-style-type: none"> • Sales target of US\$20 million achieved 	<ul style="list-style-type: none"> • Product development and marketing 	<ul style="list-style-type: none"> • S&T and commercial

Financial Summary

- The summary in Table 6 provides a ‘best-guess’ estimate of the potential revenues, expenses, and EBIT figures that could be achieved over a ten-year period based upon a business that is built around deriving greater value from T&T’s ‘red hot pepper’ resource and sector through the application of innovation and entrepreneurship.
- These estimates are based on an optimistic scenario focussed on achieving an outcome in the top 20% of the range of potential outcomes.

Table 6: Indicative financial projections for the ‘Red Hot Peppers – Soca Fire’ investment opportunity

	By year 3	By year 6	By year 10
Revenue from sales	US \$ 4,600,000	US\$ 19,600,000	US\$ 40,400,000
Basis of revenue figure	100,000 units of high capsaicin product @ US\$ 20.00 each 100,000 units of health and wellness products @ US\$20.00 each 50,000 units of industrial ingredient products @ US\$12.00 each	400,000 units of high capsaicin product @ US\$ 20.00 each 400,000 units of health and wellness products @ US\$20.00 each 200,000 units of industrial ingredient products @ US\$12.00 each	800,000 units of high capsaicin product @ US\$ 20.00 each 800,000 units of health and wellness products @ US\$20.00 each 700,000 units of industrial ingredient products @ US\$12.00 each
Capital expenditure	US\$ 1,150,000	US\$650,000	US\$ 150,000
Operating expenditure	US\$ 3,674,000	US\$ 14,924,000	US\$ 30,476,000
Earnings before interest and tax (EBIT)	US\$ 926,000	US\$ 4,676,000	US\$ 9,924,000

Note: This financial overview has not been subjected to detailed scrutiny. It is intended to be an example of what could be achieved in an optimistic scenario. Before making an investment commitment, it would need further development and to be subjected to due diligence.

The NEXT Star Rating for This 'Best Bet' Investment Opportunity



- T&T has a gene pool of Capsicum Chinese, the world's hottest pepper
- It has a large pool of expertise
- It has strong product development and branding expertise
- There is a growing health and wellness association with extracts from hot peppers
- There is an opportunity for an entrepreneurial group to establish the world's first scale that provides end-users with a meaningful measure of the effectiveness of key hot pepper components and to leverage the substantial value associated with that through smart branding and marketing initiatives.
- Moving products into the health and wellness area and away from the food area has huge value adding potential.
- The need is for a lead entrepreneur – T&T's equivalent of New Zealand's Professor Peter Molan

6 What Comes Next?

There have been many people involved in these Sector Foresight 'Best Bet' Projects since they commenced in early 2006. They came from a wide range of public, private, and institutional organisations. The level of enthusiasm and the quality of input from participants has been outstanding.

There are a number of highly positive outcomes that have already been achieved as a result of these projects including:

- Building a network of people who have a passion for foresight and innovation in both the public and private sectors that, we hope, will continue to grow and help T&T attain its Vision 2020 economic and social objectives.
- At least four of the sixteen 'Best Bet' Investment Cases are now in the process of being developed into commercial businesses. There is strong commercial interest in at least several of the others.
- A number of participants in various project workshops and processes have indicated that they are looking to move into new business ventures that they have been thinking about for some time. Involvement with the sector foresight process has given them the impetus to make bold go-forward decisions.
- Discovering that T&T has a lot more entrepreneurial business people than most who live and work in the country recognised. The lesson here is that entrepreneurs tend to be low profile and just get on and do things. They are not publicity seekers.
- Realising that T&T has a large pool of relatively unexploited talent and resources that has a great deal of potential in tomorrow's evolving consumer markets.
- Awaking interest from at least one T&T based financial institution with regard to the potential benefits their business and shareholders would gain if they began to take a small but highly focussed interest in investing in particular 'Best Bet' projects which have high growth and earnings potential.

The challenge now is not only to see how many of these Sector 'Best Bet' Investment Cases become a commercial reality but also for Trinidad and Tobago to develop a National Growth and Innovation Framework and Strategy. This will be essential if the foresighting approach is to take a hold and stimulate the development of new entrepreneurial businesses that have medium to long-term high growth prospects and can deliver the outcomes the country desires.

Such a framework and strategy would align all the country's key agencies, stakeholders, and resources in one go-forward direction. Once this is achieved, then the country will make real progress towards achieving its goal of becoming a fully developed nation by the year 2020.

Initial indications are that such an approach is likely to happen and the Sector Foresight 'Best Bet' Projects will have played a significant part in moves towards establishing a National Growth and Innovation Framework and Strategy.

7 Acknowledgements

Many people have invested a great deal of time and effort to ensure that the Sector Foresight Project makes a meaningful contribution to the future economic and social success of Trinidad and Tobago. We would like to acknowledge some particular contributions:

- NIHERST, in particular Ms Maureen Manchouck, President of NIHERST; Ms Joycelyn Lee Young, Registrar of NIHERST – for funding and leading these projects. They have been staunch supporters of the whole foresighting process.
- The NIHERST staff for the first class support they have provided us at all times.
- Larry Placide, Andre Vincent Henry, Keith Nurse, ColinDale Marcelle, Steve Maximay, Jacqueline Morris, Michele Reis, Chanzo Greenidge, Maurice Moniquette and Laura Superville – the T&T based researchers who contributed greatly to the ‘Best Bet’ project work.
- All the private sector, public sector, and institutional sector people who contributed their valuable time and expertise to help build the final sixteen ‘Best Bet’ Investment Cases – and who have done so with such great enthusiasm!

8 Appendix 1: Detailed Best Bets Research Feedback

This Appendix includes more detailed research input undertaken by the T&T researchers to further develop and test the Chapter 3 Best Bet overviews as well as financial models.

8.1 Title: Cacao – ‘Brown Gold’

- The title is a good one. It reflects the possibilities and is catchy
- Some question whether the name is sufficiently linked to Trinidad and Tobago
- Perhaps a mention with Trinitario to take advantage of the recognition in the cocoa world of the highly-renowned species and to bridge the gap in knowledge outside the cocoa sector.

Description

- Trinitario cacao is known for its special qualities. Demand currently exceeds supply. There are issues with growing and there has been little done to add value.
- Many recommendations for improving supply: -
 - Increase productivity through higher density.
 - Putting more lands under cultivation.
 - Better education for farmers.
 - Improved post-harvest activity.
 - Use cooperatives.
 - Central fermentaries.
 - New incentives¹.
- This ‘Best Bet’ opportunity focuses on extracting that added value in several ways:
 - By improving the basic genetic plant material - this could also be protected by international plant variety rights.
 - By developing a system for identifying the factor that makes Trinitario cacao so desirable. Once the factor/factors are identified a certification system could be developed which could then be used to extract greater value.
 - A key activity will be a study conducted by the appropriate local scientists to find the key element that distinguishes Trinitario cocoa. It could be the level of anti-oxidants in the cocoa or something else like Theobromyn.
 - Although the point has been made that the fine or flavour species do not compete against each other differentiation could still be a valuable option in these cases as well. It might also be useful in the development of related products.
 - Including cacao growing in the ‘Feel the Passion’ Trinidad immersion tourism experience.

¹ Francis L. Bekele, The History of Cocoa Production in Trinidad and Tobago, pg. 6.

Rationale

- Trinitario cacao has an inherent quality that differentiates it from other cacao types. It is world-class and is already differentiated in term of taste from other fine or flavoured species. It is high in demand from fine chocolate manufacturers and other chocolate makers as an agent to mix with the bulk cocoa in the blending process for lower-value chocolates.
- Chocolate is known for its feel good factor and high anti-oxidant content – which provides not only a pleasure connection but also a health and wellness (and performance) connection in people’s minds.
- The use of herbal stimulants is increasing around the world as a form of legal recreational mind altering substances.
- The New Zealand honey sector, in conjunction with researchers at Waikato University, developed a scientifically based system for measuring the level of an anti-bacterial factor called UMF (unidentified manuka factor). The outcome was a rating scale that provides buyers with an indication of the UMF level contained in each batch of honey from different sources.
- This has leveraged the value of a kilogram of high active manuka honey (15+) to over ten times that received for standard commodity honey.
- Its prime selling point is in the health and wellness area and it is now being used in hospitals to help cure wounds that won’t heal using normal antibiotics.
- In Nigeria, the Director of the Federal Agency for Food & Medicine is promoting cocoa not only for it’s health benefits but also as a replacement for Viagra because recent research found cocoa boosted libido ([Link](#)).
- More tourists are searching for unique immersion type experiences. The concept of being able to visit a cacao growing enterprise and to be able to enjoy the end products in a convivial on site atmosphere is likely to be a strong tourist attraction – just in the way vineyards and themed parks such as ‘The Big Pineapple’ in Australia and ‘Kiwifruit Country’ in New Zealand have become.
- The Cocoa experience could be linked with another suggestion from Dr. Gary Garcia and Robert Best.

Target Markets

- High-end consumers in wealthy market niches in both traditional and growth economies.
- Both the personal pleasure (in all its senses) and the health and wellness consumer focuses would be strongly targeted.
- The high-end developing markets in China and India.
- Women - who are particularly fond of chocolate.
- Europeans and nature tourists may be more valuable target markets.

The Market Offer

- Satisfying the need for fascination and more intense pleasure experiences.
- Improving personal health and wellness whilst indulging in pleasure.
- Cocoa/chocolate with a factor that has an associated premium.
- The possibility for large-scale chocolate production is minimal and should be avoided. A more profitable option would be niche chocolates. An example to note is the Grenada Chocolate Company <http://www.grenadachocolate.com>

which does not produce all its own cocoa but works with imported cocoa as well to produce a range of products such as bars and chocolate 'pods'.

- Extended use into non-food areas such as cosmetics and 'feel good' products. This should involve links with existing manufacturers in Trinidad and Tobago. Benefits would be avoidance of delays, use of existing marketing channels.
- An associated 'appellation system'.
- The total cacao immersion experience.

What We Have

- A demand that far exceeds the current supply of high quality Trinitario cacao.
- Plant material, including the Trinitario strain.
- Some expertise in growing and cacao holdings and estates.
- R&D skills.
- Land and a unique environment for growing cacao.
- A basis for successful branding based on the world class Trinitario cacao.
- Some experience with estate related marketing.
- Knowledge of at least some of the components that make cacao/chocolate an 'essential' for many consumers.
- Some innovative product developments based around cacao in the non-food sector.
- The Cocoa Research Unit.
- A germplasm bank plus a breeding programme to boost mother stock quality and disease resistance.
- A historical association with cacao growing and processing.
- A capability to produce our own T&T based cacao-derived products.
- Chocolate Shop opening in Stockholm in 2007 by local entrepreneur, Duane Dove (See Appendix 2) promoting luxury level tastings of rum and chocolate and developing his Tobago plantation into a site for visitors.
- New thinking from the Cocoa and Coffee Industry Board in favour of better organization of production and distribution, specific support activities and projects to link with international chocolate operations to produce high-value dark chocolate with the Trinidad and Tobago brand.

Regulatory issues

- The issue is production as opposed to regulation.
- No restrictions on export. It is simple to gain a Private Shipper's Licence (export licence) all that is required is a certification of export capacity of 10,000 pds/season and gain CCIB certification on quality.
- But quality control is a factor in international trade and crucial to maintenance of our reputation. Post-harvest methods need to be improved.
- Need to meet US and EU standards in the final chocolate output.
- USDA-NOP final rule sets standards for organic production.
- Council Regulation (EEC) No 2092/91 of 24 June 1991 on organic production of agricultural products and indications referring thereto on agricultural products and foodstuffs.

IP protection

- Protection of Plant Material.
- TT signatory to UPOV since 1998. The objective of the Convention is the protection of new varieties of plants by an intellectual property right.
- Such protection may be necessary if new genetic material is developed.

Infrastructure

- Low land usage.
- Loss of land to other purposes.
- Renewed Government emphasis on agriculture and food production bodes well. Cocoa has been designated as a priority commodity.
- Network of existing estates.
- Long history of cultivation.
- Lot of local knowledge.

Research and development

- Cocoa Research Unit of the University of the West Indies.
- CARIRI could be used for specific types of research and development.
- University of the West Indies (Biochemistry).
- Ministry of Agriculture – Centeno Research Facility to develop varieties and techniques for cocoa production.
 - CFC/ICCO/IPGRI project – Cocoa Germplasm, Conservation and Utilization: a Global Approach.
 - CFC/ICCO/IPGRI project - Cocoa Productivity and Quality Improvement: a Participatory Approach.
 - Agronomic Evaluation of 28 TSH types/Morphological Characterisation.
 - Progeny and Variety Selection Trials.
 - Agro-forestry Trial (Integration of Cedar and Cocoa in a Hedge-row system).
- ICCO project began in 2001 and ended in 2006 to establish the physical, chemical and organoleptic parameters to differentiate between fine or flavour and bulk cocoa. Some progress made but no specific breakthrough. Many factors including environmental, soil, post-harvest techniques and handling come into play. Additional work is needed especially to distinguish between fine or flavour species.
- David Butler, Head, CRU, Darin Sukher, CRU, Bruce Cockburn, Biochemist, UWI, Patricia Maharaj, Centeno.
- Differences as to timeframes for distinguishing the qualities. CRU tends to take a longer-term approach whereas Dr. Cockburn is less convinced that a lot of time would be needed.

Education and training

- Inadequate producer knowledge, particularly on estates, leads to poor harvesting practices and low yields.
- Extension services by Ministry of Agriculture.

- Important challenge is to get younger persons involved in cocoa farming. Suggestion by CCIB for a CEPEP-type arrangement to provide a labour pool for work on estates, especially grooming.
- Aging farming population to pass on knowledge to younger generations.

Incentives and assistance

- Incentive framework lacking despite several past recommendations, except for tourism-related services.
- Little economic incentive either as farmers receive only the Guaranteed Minimum price from the CCIB.
- Agricultural extension services are in need of improvement.
- CCIB collects the cocoa and sells it on.
- Market development assistance for downstream products is currently weak in the absence of the dedicated trade promotion company.
- Some assistance could be possible through the Caribbean Export Development Company.
- CCIB program provides loan, in partnership with ADB, up to TTD 900,000 for estate development. Approximately 120 loans provided to date.

Resources and Materials

- Human resources are a major issue to address.
- Cocoa Farming community is growing older and young persons are not moving into the area due to lack of economic incentive.
- Difficult to find labour as well due to hard work involved in cocoa production
- Low education levels of those left on the land impacts introduction of new techniques.
- Viable agricultural land is being lost to other Government needs including housing.
- The possibility of growing in other CARICOM countries and importing the material could be investigated. In some cases, the taste is likely to be affected.
- Similarly, it may be possible to import labour from other CARICOM countries, in particular Guyana, but this has social and political ramifications.
- Yield rates have to be improved.
- Labour costs tend to be high in ratio to the yields achieved by most farms.

Investment and Entrepreneurship

- CLICO is a major new player (Appendix 3).
- Duane Dove:
 - Tobago Cocoa.
 - Rum and Chocolate Experience.
 - European retail.
- Paul Manickchand in Sangre Grande:
 - High yield.
 - Organic.
 - Business approach leads to success.
- Gran Couva Estate:
 - Largest traditional plantation.

Employment

- Declining numbers.
- Less educated workers.
- Tough conditions.
- An economic or other incentive must be provided.

Business capabilities and alliances

- Recent entrance of CL Financial is positive. The company could bring new business acumen to the sector. CL also has linkages with Angostura and therefore could promote the rum and chocolate linkage as well as design their own new liquor products. International reach of the company could be useful.
- Chocolate producers like Charles Candy are well established.
- CCIB alliances with Scharffen Berger and with Vairhona to produce limited edition dark chocolates (bars and squares).

Value chain development and management

- Cocoa and Coffee Industry Board acts as an intermediary buying cocoa from the farmers at a guaranteed price and on-selling it. Fixed price is based on Grades of cocoa (plantation or estate).
- 2000 study recommends liberalizing the sale of cocoa over a five year period during which the role of CCIB would change to one of quality assurance, pricing according to quality, better coordinated research, development of producer associations, industry and producer surveys to determine market needs.
- CCIB still disputes the need for more radical change and proposes continuing to increase the price cocoa farmers receive. Price increased to \$18 per kilo whereas ideally farmers target \$25. Price also increased to the buying agents as well.
- Some attempts being made to add value rather than exporting the final product e.g. Danse Le Cacao is a joint venture between CCIB and Scharrenburger. Another project is to produce boxed chocolates with Vairhona.

Branding and marketing

- Trinitario brand is well known in the cocoa and chocolate world. CCIB does most of the interaction.
- Dependency on foreign chocolate producers.

What We Need

- Improved genetic plant material.
- Development of a measurement scale that can be used in practice.
- Identification of ways that Trinitario derived plant material could become protected through international plant variety rights.
- Top notch market research – especially with potential end users (traditional and non-traditional) – to identify mutually beneficial ways of leveraging extra value.
- Branding.

- Broadcasting the unique characteristics of Trinitario cacao more widely.
- Value chain analysis and optimisation.
- Identifying key alliances and relationships needed to make the whole thing work.
- Turning at least one cacao estate into a 'living experience' for tourists.
- Investors into land, plants, and machinery.
- A value upgrade from production through to consumption to extract greater value from the market.
- A move to fixed price contracts.
- Better dispersal of research knowledge.
- TQM at all levels including maturity and harvesting.
- A supply buffer in order to provide consistent supplies to premium end users.
- Developing higher value non-food uses for cocoa butter.
- Top notch R&D and support of the research arm at UWI.
- Increase the T&T production base.
- Preserve good agricultural land in T&T.
- Quality based incentive payments to producers.
- An industry marketing plan.
- Agro-tourism including cacao and link with TT experiential tours.
- Own storage in major markets such as Europe.
- Regional cooperation with producers e.g. in Jamaica.
- Labour saving devices and coverage of lack of skills.
- A new industry structure to handle production, processing and marketing to global buyers.
- Higher pricing to farmers and buyers.

Regulatory issues

- Once the scale is developed there will need to be regulatory support to facilitate and mandate its use. Certification methods will have to be introduced. CCIB could act as the certifying authority.
- Work at regional level on acceptance on the scale, including with the assistance of CROSQ.

IP protection

- Increasing use of patents.

Infrastructure

- More land has to be put into production. This involves rehabilitating old estates and encouraging more farmers to move into cocoa.
- Fermentaries have to be improved.
- Cooperatives should be encouraged.

Research and development

- Improve Blackpod disease resistance.
- Maintain and improve bean size.
- Maintain and improve fine flavour traits.
- Acquire genetic stock with resistance to *Monilia* Disease.
- UTT involvement to promote innovation and commercialisation of ideas.

- Improvements in engineering and automation on the estates through work by UTT and University of the West Indies.
- Cocoa Research Unit and Ministry of Agriculture, Lands and Food Production have to cooperate more.
- Research has to be linked more directly with industry requirements.

Education and training

- Better output in terms of Agricultural Extension Services.
- Specific cocoa extension services as recommended by CCIB.
- Expanded HAACP training.

Incentives and assistance

- Have to address pricing issues to farmers.
- Provision of labour support at a subsidised cost.
- External marketing support.
- Product development support.
- Assistance to attend trade fairs.

Resources and Materials

- Find new young persons willing to work in the estates.
- Introduce mechanization to improve efficiency. May act as a means of attracting new persons.
- Imported labour possible but unlikely to be an area of Government focus.

Investment and Entrepreneurship

- Lawrence Duprey.
- Bermudez.
- Arthur Lok Jack.

Employment

- Ideas to bring young workers into the field (CEPEP for Cocoa).
- Support for entrepreneurs of downstream products.

Business capabilities and alliances

- Business to business linkages need to be developed between local and foreign manufacturers.
- Production alliances should be encouraged.

Value chain development and management

- Quality maintenance is a factor.
- Greater use of technology by farmers to improve yields per acre
- Key players are farmers, buyers and CCIB.
- Improved post-harvest methods can reduce wastage and maintain high quality.

- Marketing has to be enhanced to ensure recognition of high quality of local offering and to justify the premium price it gets and to maintaining that price even where supply problems are increased and more cocoa is produced.

Branding and marketing

- Need to extend knowledge of the unique and high-value qualities of Trinitario Cocoa outside of the chocolate world.
- Especially important for new downstream products, e.g. cosmetics.
- Cocoa Experience requires marketing to specific customers, some of whom visit Trinidad and Tobago now for eco-tourism purposes.
- International marketing support needed to get our products and services into the right market focus with the correct message – high value, high quality, exclusivity.
- Consider link with sport or entertainment events.

Best Bet Roadmap

See main text.

Financial Model & Assumptions

Note: This financial overview has not been subjected to detailed scrutiny. It is intended to be an example of what could be achieved in an optimistic scenario. Before making an investment commitment, it would need further development and to be subjected to due diligence.

BEST BET SECTOR: Food & Beverage		BEST BET 1: Cacao - 'Brown Gold'											
		File date:		20/09/06									
		Last review:		25/01/07									
10 Year Financial Projection Model (US\$)													
NOTE - This model is for value adding on top of existing businesses so the figures refer only to the value added component													
		YEAR											
		1	2	3	4	5	6	7	8	9	10		
GOVT INVESTMENT	Description												
S&T research	X-Factor research	750000	500000	500000	250000	100000	100000	100000	100000	100000	100000		
Education	Training	400000	400000	400000	400000	400000	400000	400000	400000	400000	400000		
Trade development	Tourism promo/cosmet	250000	250000	250000	500000	500000	500000	750000	750000	750000	750000		
Total Govt investment		1400000	1150000	1150000	1150000	1000000	1000000	1250000	1250000	1250000	1250000		
COMMERCIAL INVESTMENT													
		YEAR											
		1	2	3	4	5	6	7	8	9	10		
REVENUE	Description												
Product/Service Line 1	XF rated cacao (1)												
Volume	Kg	20000	50000	100000	200000	300000	400000	500000	600000	700000	800000		
Value/Unit	Value add per kg	1	1.5	2	2.5	3	3.5	4	4	4	4		
Gross line revenue		20000	75000	200000	500000	900000	1400000	2000000	2400000	2800000	3200000		
Product/Service Line 2	High value products (2)												
Volume	Units of product	2000	10000	40000	100000	200000	300000	400000	600000	800000	1000000		
Value/Unit	Ex factory \$/unit	10	10	10	10	10	10	10	10	10	10		
Gross line revenue		20000	100000	400000	1000000	2000000	3000000	4000000	6000000	8000000	10000000		
Product/Service Line 3	Tourism venture (3)												
Volume	No of tourists	2000	10000	20000	30000	40000	50000	60000	70000	80000	90000		
Value/Unit	Average spend	50	60	70	80	90	100	100	100	100	100		
Gross line revenue		100000	600000	1400000	2400000	3600000	5000000	6000000	7000000	8000000	9000000		
Total Revenue		140000	775000	2000000	3900000	6500000	9400000	12000000	15400000	18800000	22200000		
EXPENSES													
Capex	Description												
Item 1	XF Rating Set Up	30000											
Item 2	Product investment	50000											
Item 3	Tourism venture	300,000	100000	100000	100000	100000	100000	100000	100000	100000	100000		
Item 4	Production set up	250000											
Total Capex		630000	100000	100000	100000	100000	100000	100000	100000	100000	100000		
Opex	Description												
Packaging	Products - 5% rev	1000	5000	20000	50000	100000	150000	200000	300000	400000	500000		
Salary and wages	30% gross rev	200000	350000	600000	1170000	1950000	2820000	3600000	4620000	5640000	6660000		
Freight	All ex factory	0	0	0	0	0	0	0	0	0	0		
Marketing	10% of gross rev.	14000	77500	200000	390000	650000	940000	1200000	1540000	1880000	2220000		
Distribution	All ex factory	0	0	0	0	0	0	0	0	0	0		
Travel	10% of gross rev.	14000	77500	200000	390000	650000	940000	1200000	1540000	1880000	2220000		
Communications	2% of gross rev	2800	15500	40000	78000	130000	188000	240000	308000	376000	444000		
E-commerce	10% of cosmetics	2000	10000	40000	100000	200000	300000	400000	600000	800000	1000000		
Rental	5% of gross revenue	7000	38750	100000	195000	325000	470000	600000	770000	940000	1110000		
Consumables	2% of gross rev	2800	15500	40000	78000	130000	188000	240000	308000	376000	444000		
Administration	5% of gross rev	7000	38750	100000	195000	325000	470000	600000	770000	940000	1110000		
Total Opex		250600	628500	1340000	2646000	4460000	6466000	8280000	10756000	13232000	15708000		
Total Expenses		880600	728500	1440000	2746000	4560000	6566000	8380000	10856000	13332000	15808000		
EBIT		-110600	146500	660000	1254000	2040000	2934000	3720000	4644000	5568000	6492000		
EBIT - Capital		-740600	465000	560000	1154000	1940000	2834000	3620000	4544000	5468000	6392000		
EBIT - (Capex + Govt)		-2140600	-1103500	-590000	4000	940000	1834000	2370000	3294000	4218000	5142000		
NOTES:													
1 X factor rated cacao - assumes this can be set up quite quickly and, with smart marketing, can leverage a premium of up to \$4 a kg by year 10 if marketed correctly													
2 High value health and wellness focussed products - a new range based around high X-factor cacao at an ex factory price of US\$10/unit													
3 Tourism venture - a Cacao Experience Centre where visitors can see how it's grown, the history, and have a 'chocolate experience'. Value per unit is each visitor's spend (entry fee plus onsite spending). The centre would be developed over a number of years adding new attractions/functions each year													
4 Salaries and wages - this is purely for the value added activities, not the operation of complete businesses													
5 An arbitrary figure for direct product and tourism marketing and market development additional to government inputs.													

8.2 Best Bet 2: 'Trini Flava'

- The title was considered acceptable. A minor concern was expressed with the lack of explicit mention of the Caribbean. This was linked with a position relating to the menu choice of the restaurant. It has deeper implications though as it will affect the image/brand of the franchise as well as its appeal to market segments.

Description

- Ethnic cuisine in Trinidad has been subjected to several hundred years of fusion influences. This has resulted in a whole range of unique styles and combinations that could have potentially good prospects in markets where there is a strong Diaspora (e.g. in Canada and the UK), wealthy cities with a growing interest in Afro-Caribbean foods, and in wealthy cities in India.
- It was felt that there was need to be more precise. Are we promoting all kinds of local foods or concentrating on the quick service restaurant idea? This need not be an either/or equation as the restaurant could and should be used to promote the local prepared foods and ingredients.

Rationale

- Finished meals and specialist beverages with an ethnic flair are a rapid growth area in many developed economies.
- Rapidly developing Indian cities such as Bangalore have increasing numbers of middle and upper income earners.
- There are strong Diasporas in North America and the UK.
- Afro-cuisine is growing in popularity in wealthy niche markets.
- Health, wellness and performance enhancement associations are also positive associations.
- Increasing numbers of wealthy ethnic middle and upper income earners are looking for new consumer products to spend their newfound wealth on.
- Dining out and prepared take home meals are rapid growth segments.
- The fusion impact in the T&T cuisine scene provides a basis for unique new product offers that should appeal to the new wealthy in key niche markets.
- The rationale was pretty well accepted. The growing concern about health and wellness opens the way for new products with these associations at the heart. The generally positive impression of the Caribbean in the minds of potential customers was seen as a positive element.
- To take full advantage of this, it may be necessary to include some Caribbean elements. The experiential appeal of the Caribbean should be used to attract customers. Retaining customers, though, means removing some of the less-desirable traits of the Trinidadian psyche, especially as it relates to attitudes to service and value for money.

Target Markets

- Selected cities with the right sort of ethnic base and/or Diaspora and rapidly increasing numbers of middle and upper income earners within those groups e.g. Bangalore, Toronto, London, selected US cities.

- Especially those who lead busy lives, working couples, professional singles, who need 'gifts of time' and are likely to try something new.
- Take home and eat out customers.
- Those who enjoy quality ethnic cuisine experiences.
- Those with a focus on personal health, wellness, and performance enhancement.
- Most of the target markets were immediately accepted based on the presence of overseas nationals. The rationale for India needs some strengthening as it did not as easily resonate in the minds of those consulted.
- The attributes and potential of the Indian market need to be presented more clearly. The World Cup (and India being based in Trinidad and Tobago) allows the perfect opportunity to make the right impression. A planned Mission to the Far East coordinated by the Ministry of Trade and Industry and scheduled for early March 2007 could also contribute.
- As to the segments of these markets, the mid-to-upper middle focus was accepted.
- It was noted that a higher percentage of Caribbean nationals based in these markets have benefited from tertiary level education than indigenous minority populations.
- It was felt that they would associate themselves and introduce non-Caribbean colleagues and business associates to the 'Trini Flava' once it was well presented and professionally implemented.
- It was felt that the model should be closer to a 'TGIF' than to a McDonald's.
- There is need to further clarify the market niches within the chosen market segments of the mid- to –upper middle focus who are interested in ethnic cuisine e.g.
 - Working couples/professional singles (may be more quick service).
 - Older (retired?) persons (more health and wellness focus?).
 - Persons who want take out as opposed to sit down meals.
- The value propositions will be different for these market niches.
- The projected target market will be extended beyond the Diaspora into the UK/US mainstream. Accordingly, the market offerings as well as the branding may have to be different.
- Within the Diaspora, there should be no problem with developing a distinctive Trinidad brand. The mainstream should more easily identify with the Caribbean rather than the Trinidad brand. The challenge will be to emphasize the Trinidadian linkage in a broader concept to reach those not directly connected to the Caribbean and to attract non-Trinidadian Caribbean transplants as well.

The Market Offer

- Pre-prepared meals and snacks based around T&T fusion concepts based upon healthy ingredients and processes.
- These can be made up as 'heat and eat' take home products that can be purchased from selected retailers.
- They can also be the basis of an additional product line for existing fast food outlets.
- They could also form the basis of a completely new franchised retail operation 'Trini Flava' – which uses either imported product from T&T or uses T&T developed recipes as the basis of the franchise concept. This could be supplemented by an entertainment component built around Caribbean music genres including traditional 'Steel Pan' entertainment.

- Beverages based upon specialist ingredients that enhance personal health, wellness, and performance. These could include components such as bois bande, seamoss, high 'X-factor' cacao, etc.
- The idea of exporting the 'Trini' experience in the food service sector had broad appeal, as did the link with new local products. It was felt that the offer should be a sit-down type restaurant with the 'Trini' theme going throughout the entire offer. This might have to be 'watered down' with broader Caribbean elements to attract and maintain the appeal.
- It was noted that this offer would require more preparatory work than a simple counter service operation for patties, for example, as several Jamaican entrepreneurs had done in the United States and Canada, mostly within their natural market segment. One interview subject noted the 'Bahama Mama' chain and suggested a model along that line but with more 'authenticity'
- The 'Trini' experience could be enhanced by reflecting seasonality/festivals in the market offerings e.g. Christmas, Carnival, Easter, Divali, Eid, etc. This will impact on menu offerings, entertainment components, décor, etc.

What We Have

- Creativity in both the cultural and cuisine senses.
- A strong cultural heritage with fusion influences in the cuisine, entertainment and creativity spheres.
- Experience in developing these types of food concepts and producing them for sale.
- Capabilities in food processing and marketing.
- Highly developed production and marketing capabilities in the beverage sector.
- Internationally recognised brands e.g. Angostura.
- Supplies of raw materials.
- Strong cultural connections around the world – Africa, Indian, Syrian, Chinese, European.

Regulatory issues

- The food safety standards in place in Trinidad and Tobago have been described as akin to 'third world' standards. Issues of relevance include use of freezers and frozen products, general sanitation, shelf lives, food temperatures and maintenance. To the outsider, if this is so, there is need for better enforcement. Using local best practices in this regard would not create the desired result.
- It would be necessary, in the conceptualisation, to know and incorporate 'first world' standards of food handling, preparation and serving, remembering that these are the target markets. It was not felt that this would be a difficult proposition as this was already being done by existing quick service formats operating in Trinidad and Tobago. This could also involve incorporating company best practices. The Public Health Act is relevant in this regard.
- With respect to packaged products that might be sold or inputs, the Chemistry, Food and Drugs Division is responsible for monitoring these products. National regulations meet international standards.
- All imports are examined and local inputs reviewed periodically. In the target markets, European standards tend to be more detailed than those of the United States. Despite this the United States Food and Drugs Administration

and Department of Agriculture are taking on more assertive roles in recent years.

IP protection

- Branding and trademark issues are important. Not to be underestimated is the importance of country branding, a process not yet begun in any serious way in Trinidad and Tobago. Trinidad and Tobago's IP legal environment is among the best in the Caribbean. Enforcement remains an issue in some areas although the trademark area is not considered to be an area of major concern.
- In addition, Trinidad and Tobago is a member of the following international treaties:
 - The Nice Agreement concerning the International Classification of Goods and Services for the Purposes of the Registration of marks (1957). [20 March 1996].
 - Vienna Agreement establishing an International Classification of the Figurative Elements of Marks (1973). [20 March 1996].
 - Trademark Law Treaty (TLT) (1994). [16 April 1998].

Infrastructure

- The Trinidad and Tobago quick service sector is quite dynamic. Local brands compete with international brands and more franchising operations are beginning to be seen in this country. This especially applies to the sit-down variety. Among those restaurants of this type already operating in this bracket are TGIF, Tony Roma's, Hooter's and Ruby Tuesday and 2007 will see new franchise restaurants. This provides an opportunity as those company best practices and put into effect and condition both workers and management. It builds local capability which could be used in the actualisation of this 'Best Bet'.
- In addition, local restaurants of the take-away format largely, are active in the region. These include local brands like Mario's and Royal Castle and international brands run from this country such as KFC. Prestige Holding operates 14 KFC outlets in the Dominican Republic, for example. The local market is open to franchises at this level also and we have seen Burger King, Long John Silver's and Captain D's entering the local market in recent years. A McDonald's franchise failed primarily, it is thought, due to internal issues rather than challenges related to customer choices.

Research and development

- Such research and development activity as occurs seems to relate to the testing of new service offerings and process improvement. Primarily this occurs in the largest local operators but smaller operators also are investing in this regard. An example is the 'Bos Burger' operation which has grown significantly in recent years in a food segment in which others have found difficult.
- Assistance could be made available for elements along the value chain. For example, the research and development facility developed by the Ministry of Trade and Industry and administered by the BDC offers grants up to a maximum of TT\$200,000 (for business alliances) to be used for product development, improvement to processes, adaptation of systems and

technology etc. This could be utilised by companies providing inputs into product offerings.

Education and training

- Labour is available for this best bet. Since it is felt that there will first need to be local trials of the offering this will involve all categories of staff. As more foreign operations are established the focus will shift to managerial skills which can be said to be available or which can be sourced.

Incentives and assistance

- No specific government assistance is available for the restaurant element of this best bet. It may have to be government-led, at least financially, and could include a consortium of interested local business interests.
- In order to reduce up-front project development costs, the possibility of sourcing assistance from international associations of retired persons could be explored. They provide very experienced experts at low cost. There are organizations in the UK, US and Canada that can be tapped for this purpose.

Resources and Materials

- Human resources are considered to be available. Some specialist knowledge relating to brand development will need to be sourced from abroad. With the largest companies in this area coming from the United States there are such resources available in that country.
- Financial resources appear to be available also but a joint private-public sector arrangement might be the best way to promote this best bet. Alternatively, the proposition could be developed and then 'sold' to the private sector locally, regionally or internationally.

Investment and Entrepreneurship

- It may be possible to interest global operators in this business area in this idea. But, this might lead to loss of control of the idea and its implementation. In any event the largest global operators in this area are below.
- See the 'Business capabilities and alliances' section below for information on local business activity in this area.

Employment

- The current situation in the country of near 'full' employment is a temporary phenomenon. For businesses in this area of activity there is ample supply of local labour.

Business capabilities and alliances

- As mentioned above, there is significant local capability. Probably the best prospect for alliance locally is Prestige Holdings. It is the largest and most diversified group and has the most experience in operating in foreign markets. It has good linkages with specialist service providers in the area of restaurant franchising. It also operates in the market segment we are envisioning. Other

local operations of some status are Mario's, Royal Castle and Pizza Boys. A summary of local activity in the sector is below.

- A recent study² placed the number of quick service restaurants in Trinidad and Tobago at 260 with estimated employment and sales of 6500 persons and USD155 million. Mario's Pizza is locally owned and the leader in the pizza segment of the market while also operating in the sandwich segment, through Blimpie's. All stores in Trinidad are company owned (17 Mario's and 7 Blimpie's). It opened a store (Mario's) in Grenada in August 2006 and plans to open in Guyana soon. Sales are estimated at USD10 million.

Prestige Holdings

- Prestige Holdings is based in Trinidad and Tobago and currently has over 80 (2006) stores in four countries in the Greater Caribbean (Trinidad and Tobago, Jamaica, Dominican Republic, and Puerto Rico) and is set to enter Barbados in 2006. It has six international brands (KFC, Pizza Hut, Long John Silver, TGI Friday's, and TCBY) in its portfolio and continues to acquire new franchise rights in the greater Caribbean and Central America (Box 5.7).

Restaurant Associates

- Restaurant Associates is based in Jamaica and currently has 35 stores in three countries in CARICOM (Trinidad and Tobago, Jamaica, and St Lucia). It has two international brands (Burger King and Popeye's Chicken) in its portfolio and is seeking to acquire new franchise rights and expand its trade in services.

International Castle

- International Castle is based in Trinidad and Tobago and currently has 32 stores in three countries in CARICOM (Trinidad and Tobago, Grenada, and Guyana). It was previously in four other OECS states, but has since closed those franchises. It has one regional brand (Royal Castle) in its portfolio and sees trade in services as a strategic growth area. Guyana is planning to open a second store in 2006.

Pizza Boys

- Pizza Boys is based in Trinidad and Tobago and is estimated to have over 65³ locations, many of which are multi-brand locations. In 2006, it exported its Church's Chicken brand and now operates in two countries in CARICOM (Trinidad and Tobago and Guyana).
- It hopes to enter two more CARICOM states (Antigua and Grenada) in the short term. It has four international brands (Church's Chicken, Captain D's, Gellato's Ice Cream, and Vie De France) and four regional brands (Pizza Boys, Burger Boys, Donut Boys, and Wok & Roll) in its portfolio and is seeking to acquire new franchise rights and expand trade in services.⁴

² Ibid

³ <http://www.guardian.co.tt/archives/2006-01-07/bussguardian1.html>

⁴ Best and Placide, November 2006

Value chain development and management

- There is some evidence of value-chain improvements relating to the local quick service sector. Prestige Holdings speaks of its actions to improve quality and reliability of local suppliers of goods and services. It has contributed also to the export of some of these related services in its operations in the Dominican Republic.
- If the 'Trini Flava' idea is to be developed there must be improvements in the supply capabilities. With a franchise operation, a number of products will be sourced in the destination market but in order to maximize the benefits of the idea, the new local materials must be on international quality and not suffer from supply bottlenecks.
- It is important to look outside of Trinidad and Tobago for certain product. Guyana could be used as a production area for certain product needed by 'Trini Flava'. Issues may arise relating to the security and stability of the supply chain of the raw material, including issues such as post-harvest handling but these are surmountable.

Branding and marketing

- There is a good amount of local expertise in branding and marketing as relates to the national and even regional markets. There is, however, little expertise as relates to the requirements of the international marketplace. This will have to be outsourced. The main element here relates to the final package that 'Trini Flava' will offer. It should be authentic while taking the necessary steps to promote acceptance by the consumers in the target market and meeting highest market standards. Authorities in this area tend to be based in the United States as a result of the dominance of American companies in the franchise area.

What We Need

- Finalisation of the package of offers that could be supplied to different markets right through from frozen, chilled or other forms of ready to use products to a complete franchising concept.
- A marketing approach that includes product selection, design, packaging, branding strategies.
- Identify and develop the best value chain from T&T's perspective from accessing raw materials through to connecting with end consumers – this may include an Internet component and leveraging cultural and Diaspora linkages.
- Developing suitable and attractive packaging that ensures shelf life, optimises presentation, assures 'pick-up-ability', addressing safety standards requirements, and internationally acceptable failsafe QA/QC systems.
- The development of linkages with the universities to help with process engineering and factory design.
- Developing key alliances and partnerships to support business development in key markets.
- IP and trademark protection strategies.
- Investment partners and entrepreneurs.
- The right product offer in all aspects to communicate the 'Trini' experience to customers in a manner that they will appreciate while meeting all relevant

international best practices and standards for food handling and service delivery.

- In addition to the above, the following is required:
 - Agreement on the franchise concept i.e. Trinidadian or Caribbean or an amalgam of both.
 - Determine the image to be projected e.g. fun loving, warm, adventurous, ethnic diversity, etc. This will depend on agreement on the franchise concept.
 - Determine considerations of structure, architecture, ambience, décor, etc. as this will have significant cost implications for the franchisee). The brand/image consultants will be able to advise on these matters but it would be important to retain indigenous inputs into the brand/image considerations.
 - Determine the market niches within the targeted market segments and develop the appropriate value propositions to satisfy customers in these niches within the overall franchise concept.
 - Obtain funding for market testing/ concept development - possibly from Government.

Regulatory issues

- In order to sustain export of inputs to the franchises abroad, action should be taken to reduce the incidence of shipments from Trinidad and Tobago encountering problems upon entry to foreign ports, in particular the United States. An objective to consider would be in-country verification by United States Customs and Food and Health inspectors.

IP protection

- The trademark will have to be protected within Trinidad and Tobago and in all markets of interest. According to the Intellectual Property Office 'registration of a trade or service mark gives the owner of the mark a monopoly. This gives the owner the right to use the registered mark on the goods and/or services for which it is registered. The owner of a registered mark can sue for infringement of his registration if someone else uses the same or a similar mark on the same or similar goods and/or services for which the mark is registered.'⁵

Research and development

- With respect to this 'Best Bet', R&D requirements basically revolve around preparation methods for the food to be served. There may be a need to develop new techniques and machinery to use in a restaurant setting. This is a possibility only because one element of the idea would be to incorporate the preparation into the food experience, through, for example, having a roti preparation area as part of the dining arrangement. In this case, traditional methods could be used.
- The UTT should be heavily involved and other relevant institutions include CARDI and CARIRI and the Lok Jack School of Management.

⁵ <http://www.ipo.gov.tt> - Intellectual Property Office of Trinidad and Tobago

Education and training

- If, as one interviewee suggested the sector lacks managerial skill then this could be addressed through education and training.

Incentives and assistance

- Financial support for development of the concept.
- Willingness to engage in joint venture arrangements as a means of encouraging local private sector participation.
- Development of a national branding could be supportive depending on the participation and outcome. The Intellectual Property Office would need to be supportive of the process.
- An effective services development and export promotion strategy.
- Increased agricultural incentives and assistance to farmers.

Resources and Materials

- Quality improvements must be made in the human resources. For example, there is a trend toward demanding higher educational qualifications from workers in the quick service sector. Service improvements have not however been felt by the consumer. At the managerial level, there is need for more persons with international market and marketing experience to drive the growth of 'Trini Flava'.
- One view expressed is that management shortcomings are the main factor behind the fact that this idea has not been actualised before.

Investment and Entrepreneurship

- Local franchise operations.
- Foreign operations such as Doctor's Associates, Yum Brands⁶ and Carlson Restaurants Worldwide Inc., other smaller international franchises.

Fast Food Segments Serviced by Leading Global QSRs

QSR Company	Burger	Sandwich	Chicken	Pizza	Mexican	Snack	Seafood	Asian
McDonalds Corporation	McDonalds Restaurants	Pret-a - Manger	Boston Market	--	Chipotle Mex Grill	Aroma Café	—	—
Yum! Brands Inc	A &W	—	KFC	Pizza Hut	Taco Bell	—	LongJohn Silver	—
Burger King Holdings	Burger King	—	—	—	—	—	—	—
Wendy's International	Wendy's Burgers	—	—	Pasta Promodo	Baja Fresh	Tim Hortons	—	—
Doctor's Associates	—	Subway Restaurants	—	—	—	—	—	—
Domino's Pizza	—	—	—	Dominos Pizza	—	—	—	—

Source: Company Websites⁷

⁶ www.yum.com

Business capabilities and alliances

- Some overlap with above in terms of possible collaborators. Financing is cited as the main challenge once the concept is developed, tested and finalised.

Branding and marketing

- The view has been expressed that this is the key success factor for this best bet. Care must be taken in the development of the concept and its implementation to ensure acceptance and authenticity. There will be competing ideas here locally but it should be possible to come up with the initial concepts here and involve international expertise in its refinement.
- National branding support.

Best Bet Roadmap

See main text

⁷ Best and Placide

Financial Model & Assumptions

Note: This financial overview has not been subjected to detailed scrutiny. It is intended to be an example of what could be achieved in an optimistic scenario. Before making an investment commitment, it would need further development and to be subjected to due diligence.

BEST BET SECTOR: Food & Beverage		BEST BET 2: 'Trini Flava'											
		File date:		22/09/06									
		Last review:		27/01/07									
10 Year Financial Projection Model (US\$)													
NOTE - This model is for value adding on top of existing businesses so the figures refer only to the value added component													
		YEAR											
		1	2	3	4	5	6	7	8	9	10		
GOVT INVESTMENT	Description												
S&T research	Product development	500000	500000	500000	500000	500000	500000	500000	500000	500000	500000		
Research	Concept development	500000											
Education	Skills training	400000	400000	400000	400000	400000	400000	400000	400000	400000	400000		
Trade development	Market development	250000	250000	250000	500000	500000	500000	750000	750000	750000	750000		
Incentives													
Other													
Total Govt investment		1650000	1150000	1150000	1400000	1400000	1400000	1650000	1650000	1650000	1650000		
COMMERCIAL INVESTMENT		YEAR											
		1	2	3	4	5	6	7	8	9	10		
REVENUE	Description												
Product/Service Line 1	Finished meals												
Volume	Packs of product	20000	200000	2000000	5000000	10000000	15000000	20000000	25000000	30000000	35000000		
Value/unit	Ex factory \$/unit	3	3	3	3	3	4	4	4	4	4		
Gross line revenue		60000	600000	6000000	15000000	30000000	60000000	80000000	100000000	120000000	140000000		
Product/Service Line 2	Trini Flava Franchise												
Volume	No sold	0	1	3	5	15	15	20	20	25	25		
Value/unit	US\$100000	100000	100000	100000	100000	100000	100000	100000	100000	100000	100000		
Gross line revenue		0	100000	300000	500000	1500000	1500000	2000000	2000000	2500000	2500000		
Product/Service Line 3	Beverages (1)												
Volume	Units	20000	200000	1000000	2000000	3000000	4000000	5000000	6000000	7000000	8000000		
Value/unit	Added value (2)	1	1	1	1	1	1	1	1	1	1		
Gross line revenue		20000	200000	1000000	2000000	3000000	4000000	5000000	6000000	7000000	8000000		
Total Revenue		80000	900000	7300000	17500000	34500000	65500000	150000000	108000000	129500000	150500000		
EXPENSES													
Capex	Description												
Item 1	Process line set up (3)	1000000					1000000						
Item 2	Franchise concept (4)	500000											
Item 3	Beverage set up (5)	250000											
Total Capex		1750000	0	0	0	0	1000000	0	0	0	0		
Opex	Description												
Raw materials and inputs	30% of Line 1 rev (6)	18000	180000	1800000	4500000	9000000	18000000	24000000	30000000	36000000	42000000		
Packaging	2.5% of line 1 rev	1500	15000	150000	375000	750000	1500000	2000000	2500000	3000000	3500000		
Salary and wages	(7)	206000	310000	900000	1850000	3400000	6450000	13000000	15500000	12600000	14650000		
Freight	All ex factory	0	0	0	0	0	0	0	0	0	0		
Marketing	10% of gross rev.	50000	50000	730000	1750000	3450000	6550000	15000000	10800000	12950000	15050000		
Distribution	All ex factory	0	0	0	0	0	0	0	0	0	0		
Travel	10% of gross rev.	8000	90000	730000	1750000	3450000	6550000	15000000	10800000	12950000	15050000		
Communications	2% of gross rev	1600	18000	146000	350000	690000	1310000	3000000	2160000	2590000	3010000		
E-commerce		0	0	0	0	0	0	0	0	0	0		
Rental	5% of gross rev	40000	45000	365000	875000	1725000	3275000	7500000	5400000	6475000	7525000		
Consumables	2% of gross rev	1600	18000	146000	350000	690000	1310000	3000000	2160000	2590000	3010000		
Administration	5% of gross rev	4000	45000	365000	875000	1725000	3275000	7500000	5400000	6475000	7525000		
Total Opex		330700	771000	5332000	12675000	24880000	48220000	90000000	84720000	95630000	111320000		
Total Expenses		2080700	771000	5332000	12675000	24880000	49220000	90000000	84720000	95630000	111320000		
EBIT		-250700	129000	1968000	4825000	9620000	17280000	60000000	23280000	33870000	39180000		
EBIT - Capital		-2000700	129000	1968000	4825000	9620000	16280000	60000000	23280000	33870000	39180000		
EBIT - (Capex + Govt)		-3650700	-1021000	818000	3425000	8220000	14880000	43500000	21630000	32220000	37530000		
NOTES:													
1 These are wellness and performance beverages and we are talking here about the premium per unit generated compared to standard drinks net of the cost of adding the special ingredient(s). This should be able to be produced on normal production lines													
2 The extra value per beverage unit sold ex-factory generated through the smart ingredients.													
3 Specialised equipment for producing and packaging these types of food products													
4 Developing the first franchise concept model in T&T													
5 Initial product development													
6 For the finished meals business area only													
7 A fixed sum for the franchise, beverage and finished meals ongoing management plus a 10% of revenue variable sum for the finished meals for the production labour cost													

8.3 Best Bet 3: Red Hot Peppers – ‘Soca Fire’

Comment: One manufacturer is about to launch a Soca Hot Sauce.

Description

- T&T already has experience with growing and developing products derived from hot peppers. The opportunities lie in a number of areas including:
 - Health and wellness products - which may not necessarily be food products.
 - Processed products such as sauces, pickles, jellies, pastes and dried and powdered products.
 - Products which are rated for the capsaicin content on a scientifically based scale which provides a measure of the ‘hotness’ factor – this may be for end products or for intermediate products that are used in both food and non-food value-added product manufacturing.
 - A 100% natural focus.

Rationale

- Apart from the growing interest in ethnic foods in mature western economies, the rapid growth in the middle and upper income groups in China and India, countries in which hot cuisine is part of traditional culture, provides a growth opportunity for higher value hot peppers.
- The capsicum peppers that are indigenous to the Caribbean belong to the species *Capsicum chinense*. It is believed that the species *Capsicum chinense* has a unique flavour and pungency which can be exploited for differentiation and branding in the marketplace.
- T&T has the climate to produce very hot peppers.
- There are ‘hotness’ scales around the world that relate to hot peppers that are based upon a capsaicin content measure.
- Trinidad peppers have a high capsaicin content which can form the basis for deriving a competitive advantage in several product applications.
- There are also opportunities to explore product possibilities in the health and wellness sector as there are suggestions it is, for example, good for metabolism and helps those suffering from arthritis.
- There is already a large pool of knowledge globally that can easily be used to develop a unique T&T focus for products, brands, and differentiating factors.
- Hot peppers have been identified under the Regional Transformation Programme (RTP) as a primary commodity with significant potential as an income earner for the region. The RTP is aimed at diversification of the region’s agriculture.

Target Markets

- Centres such as Toronto in Canada and London in the UK that have a strong T&T and Caribbean Diaspora.
- Upper end consumer segments in mature markets such as the USA, UK, and Canada, Japan, and Korea – perhaps also in some of the emerging Eastern

European countries such as Slovakia and Croatia where hot chilli is part of the local cuisine heritage.

- The rapidly growing middle and upper income groups in China, India, particularly in areas where more spicy cuisines are part of the local culture.
- Opportunities may also exist in Thailand, Malaysia, Hong Kong, and Singapore in both the health and wellness and high-end cuisine areas.
- Channels such as gourmet food and health food stores; developers and marketers of health and wellness products aimed at upper end consumers.
- Rapidly growing organic market opportunities – especially in the processed product filed in both the food and health and wellness sectors.
- An overview of the more traditional markets for pepper and pepper related products revealed the following:

The Diaspora

- The current major target market for hot peppers is the Diaspora in the US, Canada and the UK. Exports are mainly targeted to the cities of Toronto and Montreal in Canada, Miami and New York in the US and London. Based on official figures, the size of the Caribbean Diaspora is as follows:

Country	Official Population
US	1,697,714
Canada	521,860
UK	565,876
Total	2,785,450

Source: U.S. Census 2000
2001 Canadian Census: Canadian population by ethnic origin
UK Census 2001

- However, it is believed that there are many undocumented West Indians in these countries and the actual size of the Caribbean Diaspora is variously estimated at between 5 and 6 million.
- The majority of exports of hot peppers are directed towards the Diaspora. Of two companies interviewed, one estimated that about seventy-five percent (75%) of exports were to the Diaspora, while the other indicated a figure in excess of ninety percent (90%).
- The mainstream market in these countries provides a huge opportunity which can be exploited.

The US Market

- Supermarket sales for pepper products in the US were estimated at between US\$500 to \$600 million per annum over the period 1998-2002, with volumes ranging from 196,000 to 220,000 tonnes per annum. Pepper-pimentos (capsicum annum variety) contributed forty-one (41%) percent of total sales, followed by fresh peppers (31%) percent) and Cajun sauces (18%).
- The value of sales in New York was approximately twice as large as that of the Miami market during 1998-2002.
- Data on the market share for hot sauces in the US reveals that among the hot sauces, Tabasco had the largest market share (24%). The leading Caribbean brands, namely Matouks from Trinidad and Tobago and Grace from Jamaica, captured only 0.2% and 0.02% of the market (by value) and 0.01% of the market by volume, respectively. They ranked as the 64th and 65th company

with respect to pepper sauce sales in the US. This indicates that there is great room for improvement with respect to the penetration of Caribbean brands in the US market.

The UK Market

- The total size of the UK food market has been estimated at between \$70-90 billion. Fifty percent of this market is controlled by four supermarkets. The largest chains are Tesco, Sainsbury and Asda Stores.
- The Caribbean countries were reported to have a relatively small market share in the UK, equivalent to about 3-4% of the total value of pepper imported into the UK. The value of Caribbean pepper imports were reported at approximately £20 million in 1995. Total volumes were estimated at 500 tonnes per year.
- The major suppliers to the UK were identified as Kenya, Uganda, Cyprus, Holland and Caribbean suppliers including Saint Lucia, Trinidad and Tobago and Jamaica.
- Prices vary depending on the variety, seasonality and current supplies. In general, the hotter varieties which have capsicum levels of over 1% such as the Caribbean varieties, fetch a wholesale price which is 1.5 to 2 times that of the varieties with capsicum levels of less than 1%.
- With respect to the hot sauces, it is estimated that hot sauce sales will be in excess of £25 million by 2009 with “ethnic” hot sauces being in excess of £10 million. It is estimated that Caribbean hot sauces would account for 20% or £2 million. This market share has been increasing over the years and this trend is expected to continue. Further, the proportion of “ethnic” versus “non-ethnic” peppers has been increasing over the years.

The Canadian Market

- The sale of ethnic foods was estimated to be in excess of Can\$250 million. Chinese food had the largest market share with sales in excess of \$90 million, followed by Mexican/Tex-Mex, Japanese, Cajun, Middle Eastern, South Asian and Caribbean. Caribbean food items were estimated at \$2 million.
- There is obviously a very significant opportunity for increased sales of Caribbean foods in the Canadian market.

(Source: Understanding the Caribbean Hot Pepper Market - Vassel Stewart 2003)

The Market Offer

- Specialist gourmet products linked to ethnic/exotic cuisine for high-end existing and developing markets – ‘Trini-Flava’ branded.
- Different varieties to suit different market niches e.g superhot, moderately hot, seasoning, pickles.
- Specialised products with capsaicin ratings to add value.
- Broaden market from Diaspora to mainstream.
- Specialised health derivatives.
- Medicinal uses (derived from capsaicin).
 - Topical use – arthritis, itching etc. The FDA has approved creams and ointments containing up to 0.075% of capsaicin as over the counter remedies for arthritis and muscle soreness.
 - Oral use – digestive complaints.

- Combine with other medicines and herbs e.g. glucosamine, menthol.
- Possible capsaicin ratings to add value.
- New product concepts to supply rapidly growing health and wellness markets e.g. teas and fusion drinks.
- Benefits include – improved feeling of well-being, improved metabolism, contains vitamin C, anti-oxidants, etc.
- Industrial applications.
- Animal repellents e.g. paint additive to boat hulls to repel barnacles, bio-repellent for ants etc.
- Non-lethal force, e.g. pepper sprays.
- Tourism related opportunities.
- Link to exotic cuisine, health and wellness products, tourism experience.
- Suppliers of high health, high ‘bioactive’ (e.g. capsaicin) genetic seed lines.
- An on-line marketing portal for Trinidad and Tobago branded products to both offshore consumers and wholesalers who wish to order stock (a two tier pricing structure and portal access function).
- An international recognised ‘hotness’ scale based around a specific measure of the capsaicin content of Trinidad/Caribbean based lines of peppers.
- Scoville Scale - Scoville Heat Units (SHU).
- High Performance Liquid Chromatography (ASTA) Pungency Units.

Internationally Recognised Hotness Scale

Scoville Scale

- Scoville Heat Units (SHU).
- Original method for testing hotness called the Scoville Organoleptic Test developed in 1912. A solution of the pepper extract is diluted in sugar water until the heat is no longer detectable to a panel of (usually 5) tasters; the degree of dilution gives its measure on the Scoville Scale.

High Performance Liquid Chromatography

- This identifies the heat producing chemicals and weighs them according to their relative capacity to produce a sensation of heat. This yields results in ‘ASTA’ pungency units can be multiplied by 15 and reported as Scoville Units.

What We Have

- Caribbean pepper *Capsicum chinese* has a pungency and flavour that is distinctive and unique.
- A pool of unique genotype, i.e. a germplasm bank.
- A production base with experience in growing peppers as raw materials.
- A history of commercial production, processing and marketing – in particular of pepper-based sauces.
- A number of established brands which are built around the concept of Trinidad being a specialist producer and supplier.
- Some R&D expertise in this area e.g. UWI, CARDI and the Ministry of Agriculture.
- A climate that favours the production of hot peppers.
- Established producers and marketers who could support further development of a global niche business built around these raw materials.

- *Capsicum chinese* has a higher capsaicin content than the more generally utilised *capsicum annum*. This could provide a competitive advantage in certain applications e.g. health and wellness, industrial applications due to increased yields.

Capsaicin

- The active principle that causes the heat in chilli peppers is a crystalline alkaloid genetically called capsaicin. It is produced by glands at the junction of the placenta and the pod wall. The capsaicin spreads unevenly through the inside of the pod and is concentrated mostly in the placental tissue.
- The word capsaicin describes a complex of relative components named capsaicinoids. The major capsaicinoids that are contained in the crystalline extract and their percentages are capsaicin (69%), dihydrocapsaicin (22%) and three minor related components comprising (9%).
- The pungency levels of Caribbean pepper varieties have been measured.

Profile of Pepper Industry in Trinidad and Tobago

- Land Area: 250 hectares.
- Average Yield: 27 tonnes per ha.
- Production: 6750 tonnes.
- Employment: 2500.
- Average export volume (2001-2005) to US market -334.5 MT.
- Average Export Price (2001-2003) to US market-US\$ 4100 MT.

Exports-US (volume)		Exports (value)	
Year	M/T	Year	(\$1,000.) US
2001	417.3	2001	1,683
2002	304.4	2002	1,290
2003	316.3	2003	1,278
2004	371.5		
2005	263.0		
2005 (Jan-July)	132.2		
2006 (Jan-July)	166.0		

Source: US Department of Agriculture

See Table for Average Monthly Wholesale Prices 2002-2006/ Miami Terminal Market which ranged from US \$ 13.00-\$19.14 per box (8lbs).

Exports- Canada (volume)		Exports (value)	
Year	M/T	Year	\$ CAN
2002	45.9	2002	191,451
2003	64.5	2003	214,453
2004	44.5	2004	155,138
2005	18.9	2005	80,113

Source: NAMDEVCO

Cost of Production (per ha)

Plants/ha	8,960
Kg/Bg	18.18
Yield/ha (Bg)	1,500
Yield/ha (kg)	27,272.73
Yield/Plant (Kg)	3.04
Yield/plant (Bg)	0.17
Cost per hectare	89,704.86
Cost per kg	3.29
Cost per kg	59.81
Harvesting period wks	20

Source: NAMDEVCO

Types of Peppers Grown

- In Trinidad the main landraces are the highly variable 'Congo Pepper', Paramin Flavour Pepper, and the Scorpion.

Regulatory issues

- Plant breeders' rights, also known as plant variety rights, are intellectual property rights granted to the breeder of a new variety of plant.
- These laws typically grant the breeder control of the seed of a new variety and the right to collect royalties for a number of years. This guarantees income to the breeder to cover the cost of research and development.
- The purchase of protected varieties gives farmers the benefit of superior varieties. In return, farmers are expected to pay a small royalty, included in the purchase price and not sell the seed they produce. (Ref. Wikipedia).
- Plant variety rights would be available in Trinidad and Tobago for research undertaken with respect to new varieties of hot pepper.

IP protection

- IP protection will also be required for any new products that are developed. Relevant applications can be made to the Patent Office in T&T.

Infrastructure

- The supply of raw material is being adversely affected by deficiencies in the infrastructure. Farmers complain about inadequate irrigation and drainage which impact negatively on their ability to provide a consistent and reliable supply of peppers, especially during the rainy season.
- Praedial larceny has also been identified as a deterrent to the involvement of farmers in the production of agricultural crops, including hot peppers.
- A packing house which can accommodate 55,000 kg of pepper in chilled storage is operated by NAMDEVCO.

Research and development

CARDI

- Spearheading the regional efforts in pepper germplasm conservation. It is the process of collecting and establishing a Caribbean wide collection of pepper varieties.
- Pepper breeding programmes in purifying and stabilising the hot pepper landraces in Trinidad and Tobago.
- Developing manuals for:
 - Production - 90% complete.
 - Post Harvest - 50% complete.
 - Processing - To be developed.
 - Marketing - 85% complete.
- These manuals will be based on regional/international best practice and will be validated by application within the region.
- Establishing a database of exporters, processors, and farmers in Trinidad and Tobago. A template has been developed and some data has been collected.
- Evaluating production systems according to the classification of high tech, medium tech, and low tech.

UWI

Breeding objectives:

- Yield improvement.
 - Average yield bet 20-27 tonnes/ha. Compare with Mexico – genetic potential over 50+/ha.
- Earliness and greater determinancy.
 - Some varieties flower late and produce crops over long periods – this increases cost of production, allows build-up of pests and diseases.
- Resistance to disease.
 - Viral diseases most important constraint to production.
 - Resistance to insect pests e.g. mites.
- Fruit Quality.
 - Uniformity of size and shape, capsicum and flavour content etc.
- Adaptation to the Caribbean region.

Methods of Improvement:

- Recurrent mass selection.
- Hybridisation between landraces to combine specific characteristics.
- Developing of hybrid varieties.
- Yield increases as well as fruit quality and uniformity can be achieved through the production of hybrid varieties.
- Investigating flavour and pungency qualities and extraction of essential oils and flavour compounds (Department of Engineering).
- Post harvest physiology and storage (Department of Food Production).
- Plant Density Trials (Ministry of Agriculture).

Education and training

UWI

- 7 students involved in post-graduate work (Department of Natural Sciences.)
- 4 members of staff (Department of Natural Sciences).
- 2 members of staff (Faculty of Engineering).
- Introduction of MSc in Biotechnology.
- Some intellectual resources are being applied to the research and development effort in relation to this project.

Incentives and assistance

- Incentives are available to farmers from the Ministry of Agriculture, Land and Marine Resources for soil conservation, land preparation, water, and machinery and equipment.
- Incentives for research and development are also available through the Business Development Company, which operates a research and development facility for the Ministry of Trade and Industry. Under this facility a company in the manufacturing and services sector can access a maximum grant of \$100,000 annually to cover up to two thirds of the cost of their research and development project. The business is expected to cover the remaining project costs.
- This RDF is also designed to encourage alliances among businesses. Grants will be offered to business alliances to a maximum of \$200,000.
- Areas of research and development that will be eligible for funding include:
 - Improvement of processes.
 - Product development.
 - Adaptation of system and technology.
- Certain eligibility criteria have to be met in order to access this facility.
- Funding is available from external sources such as the European Union.

Resources and Materials

- The demand for raw materials currently outstrips the supply. The production of hot peppers in Trinidad is estimated at 6700 tonnes per annum. The shortfalls in raw materials are caused by, among other things, labour shortages, inadequate drainage and irrigation, praedial larceny, the current unattractiveness of agriculture in an oil/energy-based economy.
- At least one leading manufacturer of pepper sauce has indicated that peppers have been imported from Columbia and Costa Rica.
- Labour shortages have been reported in relation to processing and growing operations.
- The shortfalls in raw material supply can be remedied by sourcing peppers from other countries within the region e.g. Guyana. This is particularly relevant in the context of the Caribbean Single Market and Economy (CSME).
- With respect to research and development, significant intellectual capital is being applied especially in the area of breeding and genetics by staff and graduates students at the University of the West Indies and by staff at CARDI and the Ministry of Agriculture.

Investment and Entrepreneurship

- There are several companies currently involved in the industry. The following listings are available:
 - Agro processors in Trinidad.
 - Agro Processors in Tobago.
 - List of exporters.

Employment

- It is estimated that approximately 2,500 persons are employed in the industry (see Profile of Pepper Industry in Trinidad and Tobago).
- However, the agricultural sector is plagued by labour shortages in Trinidad. The pepper industry is therefore affected by labour shortages at the growing as well as at the processing stage of the operations.

Business capabilities and alliances

- Refer to section in 'Investments and Entrepreneurs'. It may be possible to develop alliances from the processors and exporters currently engaged in the industry.

Value chain development and management

- Growers- Buyers- Processors -Distributors –Retailers OR Growers- Processors- Distributors (Importers)- Retailers OR Growers- Importers- Retailers.
- In the case of processed products (pepper sauces, condiments etc), the processors either buy directly from the farmers or obtain their supplies through a buyer.
- In the case of fresh peppers, the peppers are sold to an importer who then sells to a retailer.

Branding and marketing

- The larger agro processors have established brands in both the local and export markets e.g. Matouk and Chatak. In the export markets the main focus has been the Diaspora. The brands are not established in the mainstream markets.

What We Need

- Increased production of the raw materials – this is currently a limiting factor.
- R&D into new varieties, production process, and potential new products (including nutraceuticals and health and wellness products).
- Greater collaboration between researchers in Trinidad and Tobago and in the Caribbean.
- The appropriate packaging and labelling to best match retailer and end-customer needs.
- Market intelligence and a marketing strategy to support, promote, and develop markets for new and existing products.

- Development of recipes and a range of hotness options from mild through to fiery.
- A branding strategy which could include country and capsaicin content rating as a differentiating and quality back up differentiator.
- Utilise scientifically based quality measurement scales based around capsaicin content as a marketing/promotional tool.
- A focus on organic and 100% natural products and the associated accreditation, certification and monitoring systems.
- Infrastructure improvements – proper drainage and irrigation programmes to facilitate improved growing conditions. This needs to be provided by the Government.
- Proper post-harvest handling of products.
- Venture capital to finance investment opportunities which have been identified.
- Protection for plant variety rights in export markets.
- Additional incentives for research and development.

Regulatory issues

- Compliance with Bioterrorism Act - which requires traceability of product for exports to the US.
- Good Agricultural Practices (GAP) are required by the European Union.
- HACCP is required for processing and packaging facilities.
- Maximum residual levels (MRL) are required.

IP protection

- Plant variety rights must be acquired for new varieties developed.
- IP rights must be obtained for any new products developed.

Infrastructure

- Irrigation and drainage required to facilitate growing.

Research and development

Supply Side

- Genetics and breeding – yield improvement, resistance to P&D, cultivar development.
- Productivity – hybrid varieties.
- Raw material supplies – more effective and efficient growing systems.

Demand Side

- Food and Beverage.
- Health and Wellness.
- Industrial.

Key Institutions

UWI, CARDI, CARIRI.

Incentives and assistance

- Government can provide assistance with funds for R&D, product development, market testing, training, etc.
- Venture capital may be required.
- It may be possible to obtain funds from the EU, CIDA, etc.

Resources and Materials

- Labour shortages can be alleviated by importing labour from Caribbean countries.
- Raw material shortages can be remedied by growing peppers in the region and importing them into T&T. The CSME will facilitate this.

Investment and Entrepreneurship

- Existing agro-processors are potential candidates.

Employment.

- Key competencies required include research and development, quality assurance, marketing and branding.
- There will be keen competition for these resources in Trinidad.
- This may be alleviated by importation of people with the requisite skills from CARICOM countries under the CSME arrangement.

Business capabilities and alliance

- There is need to unearth a new breed of indigenous entrepreneurs since the traditional entrepreneurial classes may view these initiatives with cynicism.

Best Bet Roadmap

See main text.

Financial Model & Assumptions

Note: This financial overview has not been subjected to detailed scrutiny. It is intended to be an example of what could be achieved in an optimistic scenario. Before making an investment commitment, it would need further development and to be subjected to due diligence.

BEST BET SECTOR: Food & Beverage		BEST BET 3: Red Hot Peppers											
		File date:		22/09/06									
		Last review:		27/01/07									
10 Year Financial Projection Model (US\$)													
NOTE - This model is for value adding on top of existing businesses so the figures refer only to the value added component													
		YEAR											
		1	2	3	4	5	6	7	8	9	10		
GOVT INVESTMENT	Description												
S&T research	Product development	500000	500000	500000	500000	500000	500000	500000	500000	500000	500000		
Education	Skills training	400000	400000	400000	400000	400000	400000	400000	400000	400000	400000		
Trade development	Market development	250000	250000	250000	500000	500000	500000	750000	750000	750000	750000		
Total Govt investment		1150000	1150000	1150000	1400000	1400000	1400000	1650000	1650000	1650000	1650000		
COMMERCIAL INVESTMENT													
		YEAR											
		1	2	3	4	5	6	7	8	9	10		
REVENUE	Description												
Product/Service Line 1	High capsaicin (1)												
Volume	Units of product	5000	50000	100000	200000	300000	400000	500000	600000	700000	800000		
Value/unit	Ex factory \$/unit (kg)	20	20	20	20	20	20	20	20	20	20		
Gross line revenue		100000	1000000	2000000	4000000	6000000	8000000	10000000	12000000	14000000	16000000		
Product/Service Line 2	Health & wellness (2)												
Volume	Units of product	20000	50000	100000	200000	300000	400000	500000	600000	700000	800000		
Value/unit	Ex factory \$/unit (kg)	20	20	20	20	20	20	20	20	20	20		
Gross line revenue		400000	1000000	2000000	4000000	6000000	8000000	10000000	12000000	14000000	16000000		
Product/Service Line 3	Industrial Applications (3)												
Volume	Units of product	0	0	50000	100000	200000	300000	400000	500000	600000	700000		
Value/unit	Ex factory \$/unit (kg)	12	12	12	12	12	12	12	12	12	12		
Gross line revenue		0	0	600000	1200000	2400000	3600000	4800000	6000000	7200000	8400000		
Total Revenue		500000	2000000	4600000	9200000	14400000	19600000	24800000	30000000	35200000	40400000		
EXPENSES													
Capex	Description												
Item 1	Capsaicin set up (4)	500000					500000						
Item 2	Health & well. set up	250000		50000		50000		50000		50000			
Item 3	Industrial Applications set up		200000	50000		50000		50000		50000			
Item 4	PVR Seed Lines		50000	50000		50000			50000				
Total Capex		750000	250000	150000	0	150000	500000	100000	50000	100000	0		
Opex	Description												
Raw materials	30% of gross rev	150000	600000	1380000	2760000	4320000	5880000	7440000	9000000	10560000	12120000		
Packaging	2.5% of gross rev	20000	50000	100000	200000	300000	400000	500000	600000	700000	800000		
Salary and wages	Fixed + prodn related	250000	400000	660000	1120000	1640000	2160000	2680000	3200000	3720000	4240000		
Freight	All ex factory	0	0	0	0	0	0	0	0	0	0		
Marketing	10% of gross rev.	50000	200000	460000	920000	1440000	1960000	2480000	3000000	3520000	4040000		
Distribution	All ex factory	0	0	0	0	0	0	0	0	0	0		
Travel	5% of gross rev.	25000	100000	230000	460000	720000	980000	1240000	1500000	1760000	2020000		
Communications	2% of gross rev	10000	40000	92000	184000	288000	392000	496000	600000	704000	808000		
E-commerce	5% of gross rev	40000	100000	200000	400000	600000	800000	1000000	1200000	1400000	1600000		
Rental	5% of gross revenue	25000	100000	230000	460000	720000	980000	1240000	1500000	1760000	2020000		
Consumables	2% of gross rev	10000	40000	92000	184000	288000	392000	496000	600000	704000	808000		
Administration	5% of gross rev	25000	100000	230000	460000	720000	980000	1240000	1500000	1760000	2020000		
Total Opex		605000	1730000	3674000	7148000	11036000	14924000	18812000	22700000	26588000	30476000		
Total Expenses		1355000	1980000	3824000	7148000	11186000	15424000	18912000	22750000	26688000	30476000		
EBIT		-105000	270000	926000	2052000	3364000	4676000	5988000	7300000	8612000	9924000		
EBIT - Capital		-855000	20000	776000	2052000	3214000	4176000	5888000	7250000	8512000	9924000		
EBIT - (Capex + Govt)		-2005000	-1130000	-374000	652000	1814000	2776000	4238000	5600000	6862000	8274000		
NOTES:													
	1 High capsaicin rated ingredient grade product - including for wellness products- either litres or kg												
	2 Health and wellness products that are not necessarily food - but use hot pepper as a health and wellness selling point												
	3 Industrial applications eg animal repellants ,pepper sprays etc												
	4 Capsaicin set up to develop ratings grade extracts or ingredient derivatives												