

PART TWO: INDUSTRY ANALYSIS – INDONESIAN AGRICULTURE & PROCESSED FOOD

GLOBAL FOOD & BEVERAGE TRENDS

A recent ACNielsen group survey¹ 'What's Hot around the Globe – Insights on Growth in Food and Beverages 2004' highlights major international trends in a 59-country sample.

The global findings provide pointers to the future for Indonesia, as well as also reflecting current behaviours in the Indonesian upper middle and high income sectors of the market.

The headline messages reflect many realities in Indonesian consumer behaviour, adjusted for local market conditions. The key trends are:

- a continued focus on health
- the need for convenience, and
- the growing impact of private label products ('house brands').

ACNielsen has grouped food and beverages into 12 major categories – commented that in global terms only meat, fish and eggs and non-alcoholic beverages had overall growth rates above the norm.

The non-alcoholic beverages category was the largest segment by both sales value and also experienced the strongest absolute value growth.

Of the 89 categories reviewed, soy-based drinks experienced the fastest growth rate. Soy-based drinks are extremely popular in Indonesia.

TABLE 9: ACNIELSEN REVIEW OF FASTEST GROWING PRODUCT CATEGOTIRES, 2004
 (selected items only)

CATEGORY	CATEGORY GROWTH RATE 2003-2004
Soy-based drinks	31%
Eggs	16%
Cereal/muesli/fruit bars	14%
Sports/energy drinks	10%
RTD* non-carbonated beverages	8%
Fresh vegetables	7%
Frozen meat	7%
Cakes	6%
Bottled water	6%

Source: AC Nielsen * RTD = Ready to drink.

¹ ACNielsen Global Services, 'What's Hot Around the Globe', December 2004.

Some of the key trends of relevance to Indonesia include:

- The emergence of 'healthy alternatives' for a consumer base that is more urbanised, sophisticated and aware of the need to improve dietary intake. In the 'Cooking Basics' category, two products that have experienced fast growth are sugar substitutes and cooking oils.
- Trends in confectionery and snacks showed a move to healthier products and a similar trend was observed in the beverages category.
- In beverages, 'health and energy drinks' showed high growth with an emphasis on sugar-free products as well as 'functional' beverages containing amino acids, vitamins and supplements.
- Continued strong moves towards bottled water were evident, triggered by concerns for safe drinking water.
- Baby food showed a strong increase – with baby formula registering the largest and the fastest growth.
- The beverages sector showed greater segmentation as companies develop beverages to suit consumer preferences ranging from convenience to health factors.
- The highest growth in the dairy sector was recorded by cheese, followed by refrigerated milk products. Indonesia's dairy products market remains small, although cheese is showing strong growth from a small base – particularly in the youth market which is increasingly attracted to convenience food.

ACNielsen summarises the global results as follows:

'The message to manufacturers and retailers is clear. There is a definitive need to acknowledge and address the consumer's requirement for healthy and convenient products. Consumers are willing to purchase both private label and branded products, based on the value received. Finding healthy products that are both convenient and provide value is the true global challenge.'

THE INDONESIAN CONSUMER²

CONSUMER EXPENDITURE

The ACNielsen group is the principal source of data on consumer expenditure and trends in Indonesia. ACNielsen classifies Indonesian household expenditure in the following categories (see Table 10). These categories are used as industry standards when discussing consumer segments.

² The publication *'Food Exporters' Guide to Indonesia'* prepared by Instate Pty Ltd for DAFF (available at www.daff.gov.au) provides valuable background and demographic data for Indonesia for 2003. This section provides new commentary and updates for 2004.

TABLE 10: ACNIELSEN MEDIA RESEARCH DEMOGRAPHIC SEGMENTS IN INDONESIA

SEGMENT	MONTHLY HOUSEHOLD EXPENDITURE	
	RUPIAH PER MONTH	US DOLLARS PER MONTH*
A1	Rp 2,250,000 and over	US\$244 and over
A2	Rp 1,750,000 - 2,250,000	US\$190 - 244
B	Rp 1,250,000 – 1,750,000	US\$135 - 190
C1	Rp 800,000 – 1,250,000	US\$87 - 135
C2	Rp 600,000 – 800,000	US\$65 - 87
D	Rp 400,000 – 600,000	US\$44 - 65
E	Rp 400,000 and below	Less than US\$44

*EIU average annual exchange rate for 2004 of USD1 = approx. Rp 9,222

Jakarta continues to dominate national consumer market perspectives, particularly for products targeting consumers with relatively more disposable income. This is clearly demonstrated in Table 11.

TABLE 11: DISTRIBUTION OF CONSUMERS BY CITY AND EXPENDITURE SEGMENT, 2004

	A1	A2	B	C1	C2	D	E
Jakarta metro	18	14	20	28	11	6	3
Greater Jakarta	8	9	15	27	18	15	8
Surabaya	16	11	19	24	14	13	3
Medan	8	12	25	35	15	4	1
Makasar	8	7	17	25	17	18	8
Denpasar	14	12	19	26	16	10	3
National 2004	8%	8%	15%	26%	19%	16%	8%
NATIONAL 2003	6%	6%	13%	24%	19%	21%	11%

Source: ACNielsen, February 2005.

It is particularly pleasing to note, in comparison with figures for 2003, that there has been a degree of 'bracket jump' as more consumers move into the higher expenditure segments.

Nationally, 32% of households were in the D and E segments in 2003, which decreased to 24% in 2004 – representing a significant upwards movement.

This is particularly evident in Jakarta where the comparison is as follows:

JAKARTA	2003	2004
A1 to C2	85%	91%
D and E	15%	9%

2004 has seen a return of consumer confidence. Most of the Indonesian agribusiness and food companies interviewed reported sustained demand for their products.

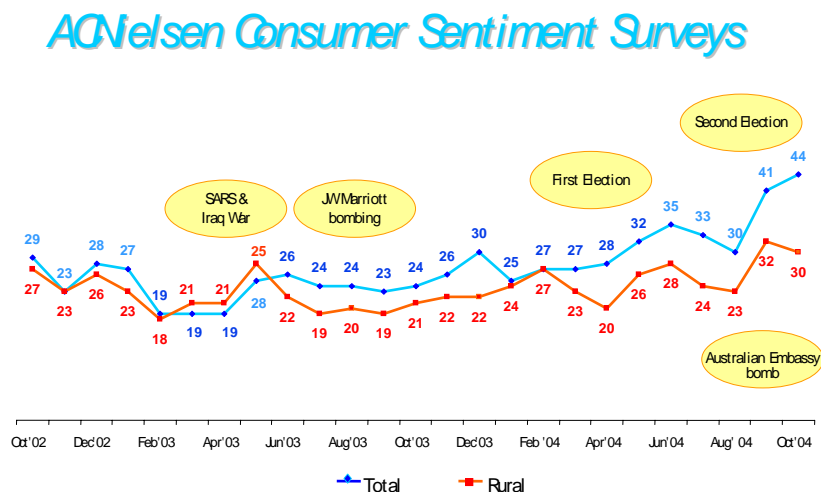
Following the release of a series of positive economic numbers in February 2005, Anton Gunawan, Chief Economist at Citigroup³ commented 'Real wages are positive and increasing, especially in the cities, and demand for items like motorcycles and electronics is increasing. We don't expect private consumption to decrease in the near future.' During 2004, Indonesian sales of passenger cars rose by 34% while motorcycle sales posted an impressive 38% gain over 2003. Steady interest rates and ready availability of consumer credit has fuelled this growth. The January 2005 statistics showed a huge 50% increase in vehicle sales year-on-year.

Indonesian consumer sentiment is high. ACNielsen's Asia Pacific Consumer Confidence study, released in December 2004, revealed that 76% of Indonesians surveyed are optimistic that economic conditions will improve over the next 12 months.

The return of consumer confidence and demand has, however, produced quite different consumer behaviours from those evident in the middle class 'boom' period of 1992-1995. Consumers are more discerning in seeking value for money products, and this is particularly evident in the food sector.

The growth in consumer confidence in Indonesia is one of the highest in the Asia Pacific region, after China and India. The ACNielsen December 2004 survey reveals a number of interesting findings but particularly reflects middle and upper segment consumer sentiments. The survey is conducted across a representative sample of 500 consumers, all with Internet access.

FIGURE 13: ACNIELSEN CONSUMER SENTIMENT SURVEYS 2002-2004



The major concerns for Indonesians were:

- The economy (87%) – up from 83%
- Political stability (77%) – down from 83%
- Health (36%) – down from 51%
- Job security (34%) – down from 45%

³ Bloomberg report, 16 February 2005.

- Terrorism (31%) – down from 36%
- Crime (30%) – down from 39%

Growth in Indonesia's consumer demand in 2004 has been accompanied by a massive 42% increase in imports in 2004 for domestic consumption, with a more moderate 11.5% growth in exports. The recent increase in imports of capital goods and the improved export performance suggest that Indonesia is now at a 'hinge point' in the recovery cycle.

CHANGING CONSUMER BEHAVIOUR

Considerations of Indonesian consumer behaviour, especially in the B and C categories, have been heavily conditioned by the events of the financial and monetary crisis of 1997/98 (Krismon). The crisis had a major immediate impact – but also left some indelible imprints on consumer behaviour:

- Consumers enjoyed higher levels of spending pre-Krismon, which allowed them to buy higher quality, more nutritious food products.
- The events of Krismon forced households to move to lower quality products, smaller quantities and reduced consumption of protein sources such as chicken, fish and beef.
- Manufacturers responded to Krismon by producing better value for money offerings, with many of these moving branded product to house or no-brand label, usually with a quality downgrade.

The need to constrain expenditure also resulted in consumers moving to smaller package sizes (already characteristic of the Indonesian consumer goods market) and Krismon drove this trend even more strongly.

This phenomenon is frequently referred to as the 'sachet economy' and Indonesia (along with India and the Philippines) is one of the world's major 'small pack' markets. This type of packaging enables consumers to continue to enjoy their product of choice, but on a 'pay as you go basis' for a reduced quantity, rather than purchasing larger, more expensive pack sizes.

- The 'sachet economy' principle requires companies to create profitable business models based on a huge number of small transactions.
- Hindustan Lever (Unilever) in India successfully developed this model, offering small packs of global brand products (Sunsilk, Lux) at a low price with a distribution network reaching to every street corner, often using clever regional product differentiation.
- Unilever Indonesia has rolled similar programs out in Indonesia. Unilever has agreements with 12,000 wholesalers that reach 800,000 traditional vendors. To distribute products into remote or congested areas, Unilever sells Lipton iced tea from motorcycle saddlebags.⁴

⁴ Business Week, March 2003.

- Other local Indonesian companies, such as PT Wings are challenging Unilever's range of global household and personal care products with ranges of specially formulated local brands, pitched specifically to the Indonesian consumer.

ACNielsen's index of consumer purchase (prices) has shown a strong increase in 2004, compared with 2003.

FIGURE 14:

ACNielsen Consumer Purchase Index - Food



Source: ACNielsen Retail Index

The survey is based on the top 30 fast moving food items including:

- powdered milk
- noodles
- cooking oil and
- rice

and covers 4000 traditional stores, and 1500 'modern' outlets.

The ACNielsen survey covers 95% of Indonesia's population centres.

Growth in the purchase price index in the 'modern' trade sector (supermarkets, hypermarkets, convenience stores) was up 43% on the previous year while the increase in the index for 'traditional' outlets (wet market and similar) was 19%, producing a 'Total Indonesia' figure of 25.7% growth. This compares with the 2003 figure of 14.1%. The official consumer price index year-on-year to January 2005 was 7.3%

RETAIL BEHAVIOUR⁵

The trends outlined by Instate in the *'Food Exporters' Guide to Indonesia'* are still in evidence, and include:

- Hypermarkets, mini markets and warehouse stores are taking some of the growth from the 'modern' sector that used to be captured almost exclusively by supermarkets.
- All modern formats are taking market share from traditional wet markets and provision stores.
- Within the modern sector, conventional supermarkets are under the most pressure.

Since these trends were published in 2004, market developments have included the following:

⁵ See also the DFAT Subsistence to Supermarkets Series, Agrifood Globalisation and Asia, Volume II: Changing Agrifood Distribution in Asia, August 2002, for a comprehensive analysis of the modernisation of food retailing and food service across Asia, with detailed company profiles of multinational Western retailers and Asian food retailers operating in Indonesia (as well as the rest of Asia).

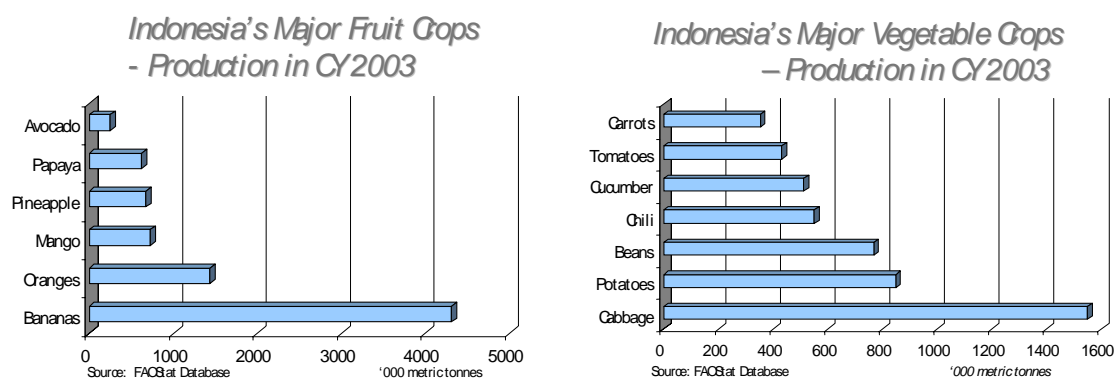
- Increasing dominance of hypermarkets in the 'modern' sector, notably Carrefour.
- The planned 100% acquisition of the PT Hero supermarket chain by Dairyfarm, a Jardine Matheson company. (This is currently being contested in the Indonesian courts).
- Continuing rationalisation of the supermarket sector, where, according to ?, 'only the strong will survive.' If PT Hero moves to a 100% foreign-owned entity it is expected to consolidate its market position, and in association with the group's Giant hypermarket outlets (now 6 sites) substantially grow its market share.
- Strong performance in the premium sector by specialty outlets catering for the A1 market, including the Papaya and Ranch Market groups, and boutique gourmet operations, such as Epicure Fine Food Distribution.

INDUSTRY ANALYSIS

THE INDONESIAN FRUIT AND VEGETABLE INDUSTRY

Indonesia produces a wide variety of fruit and vegetables, with emphasis on tropical fruits such as papaya, pineapple, rambutan, bananas, mangoes, avocados, jackfruit, melons and durian. Major vegetables produced include cabbage, tomatoes, cucumber, shallots, mustard greens, leeks, carrots, radish, potatoes, onion, beans and chili.

FIGURE 15: INDONESIA'S MAJOR FRUIT AND VEGETABLE CROPS, CALENDAR YEAR 2003



Note: The figures shown in these graphs do not include fruit and vegetables grown in domestic gardens. Home cultivation represents a significant element of production for the lower consumer groups. Maize is also not included as at least half of production goes direct into the feed milling sector.

Indonesians have increased their consumption of fruit and vegetables. From 1999 to 2002 fruit calorie intake grew by 16% while vegetable calorie intake rose by 26%.⁶ Rice represented 65% of household food expenditures in 2002.

The Susenas⁷ 2002 data shows that household expenditure on fruit increased by 86% from 1999-2002 while expenditure on vegetables grew by 30%.

⁶ Molyneaux and Rosner - The Changing Pattern of Indonesian Real Food Consumption, February 2004.

An analysis of Susenas data from 2003 onwards, however, does not indicate the same strong growth trend as registered during the 1999-2002 period. Consumption growth in urban areas is predictably higher than in the rural population. The survey does not, however, include crops from household gardens – which obviously are very important sources of fruit and vegetables in rural areas.

Nevertheless, household expenditure on both items increased by over 12% year-on-year, double the per capita expenditure on all food items.

TABLE 12: INDONESIAN HOUSEHOLD CONSUMPTION DATA, 2003
INDONESIAN HOUSEHOLD CONSUMPTION DATA
2003

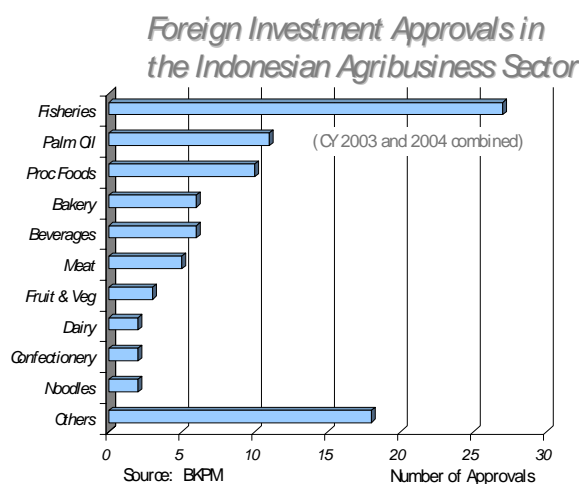
Changes in average per capita consumption over 2002

	Urban	TOTAL
Fruit	14.1%	13.5%
Vegetables	11.5%	10%
FRUIT & VEGETABLES TOTAL	12.8%	12.2%
ALL FOOD ITEMS	7.8%	6.0%

Source: BPS Household Expenditure Survey 2003

An analysis of ‘poor’ households during the 1999-2002 period indicated that by shifting expenditure towards rice from other foods, the poor appear to have maintained their caloric intake levels with a modest improvement in the quality of their diet.

FIGURE 16: FOREIGN INVESTMENT APPROVALS IN INDONESIAN AGRIFOOD



A review of investment approvals issued by Indonesia’s Investment Coordinating Board (BKPM) for the 2 calendar years 2003 and 2004, however, indicates little new investment in the fruit and vegetable sector. The only foreign investments listed were for two small investments for mushrooms (champignons) and one for canned fruit and vegetables – valued at US\$4.2 million.

Some of the factors that have dampened investment interest to date in the Indonesian fruit and vegetable sector include:

- land use and ownership policies
- small land plots in Java that do not permit large-scale private sector production
- poor post harvest handling and packing facilities
- limited and costly cool chain facilities for transport
- the degree of government regulation.

⁷ The Central Bureau of Statistics, Indonesia.

There have been a number of efforts at larger scale production in Java and other islands, including potatoes as well as a leafy green vegetable project in the Riau islands, funded by the Singapore Economic Development to supply the Singapore market. After about 10 years of the project life, the venture is reported to be operating relatively well.

While there is a clear incentive for farmers to move to higher value horticulture from lower value crops, expansion in this sector has been slow and much of Indonesia's demand has been met by increased imports.

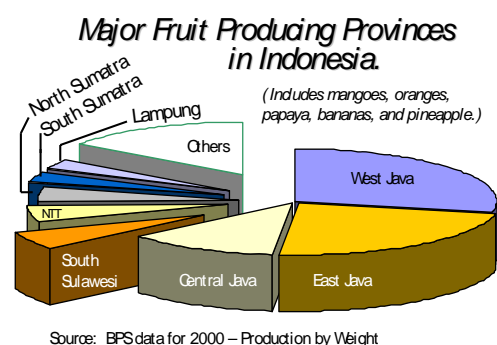
There are many reasons for the low level of commercial interest in the fruit and vegetable sector. Higher market prices for horticultural produce are generally an attraction for farmers to switch from lower value crops such as cassava, tapioca and also rice. Indonesian Government policies that stress the importance of self-sufficiency, however, have tended to concentrate support programs on the production of lower value staple commodities.

As noted earlier, the development of the horticultural industry in China has taken a different tack in developing strong export markets in higher value fruit and vegetables, while importing an increasing proportion of its lower value grain requirements. Chinese farmers are now having a major impact in global and regional South East Asia markets for their horticultural produce. Chinese traders, however, still position themselves at the volume end of the market, exporting lower value apples, and continuing to import higher value, better quality product.⁸

A seed potato project has been undertaken by the WA Department of Agriculture and its East Java counterpart. Western Australia has supplied potato seeds to farmers in East Java. This has been supported by a program to assist Indonesian farmers to improve both the quality and quantity of their yields. Both agricultural scientists and Western Australian farmers have been coopted to provide on the ground expertise. There are other projects, such as strawberry production in the Java uplands, that are proceeding, but these have been on a relatively limited scale.

FRUIT

FIGURE 17:



Java is the major centre of fruit production in Indonesia. Fruit and fruit juice consumption has shown strong growth throughout Asia, including Indonesia.

Major production has been of tropical and sub-tropical fruits, however imports of temperate fruit have increased to cater for growing demand amongst middle and higher income groups for a broader variety of produce.

Indonesia has also seen a strong uptake of fruit in its food-processing sector, principally for juices but also for snacks and bakery products.

⁸ Subsistence to Supermarket II - Agrifood Globalisation and Asia Volume III, Asian Agrifood Demand Trends and Outlook to 2010. DFAT 2004, pp 389-391, China's apple production.

The Subsistence to Supermarket II publication - Agrifood Globalisation and Asia Volume III⁹ – provides a great deal of valuable data on demand trends including modelling results for demand of key food items to 2010. It notes (p. 382) that fruit remains a luxury item of expenditure up to a relatively high income level.

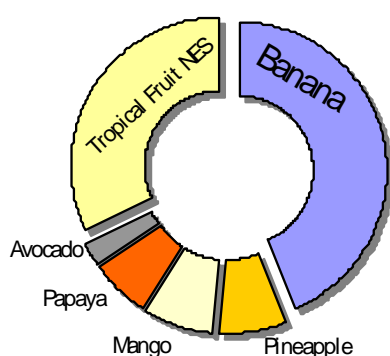
Bananas, jambu (water apples) and mangoes are the most popular fruits consumed, with bananas accounting for approximately 40% of total fruit consumption. The report notes that Indonesian fruit consumption declined in the 1980s but rebounded in the 1990s as market liberalisation measures took hold, notably for imports. Per capita demand for fruit is projected to rise more slowly between 1997 and 2010 than during the 1990-1997 period, with an annual growth rate of 1.5% - which is still well-below tropical fruit consumption in other large South East Asian countries.

TROPICAL FRUIT

Indonesia is a major producer of tropical fruit. Key crops include bananas, mangoes, papaya, pineapple and avocado. Their relative volumes are shown in this pie chart.

FIGURE 18:

Indonesian Tropical Fruit Production - 2004 Major Growing Areas:



Source: FAOStat

Bananas: Java (about 70%), South Sumatra, South Sulawesi, NTT.

Pineapples: Java (about 50%), South Sumatra, Riau.

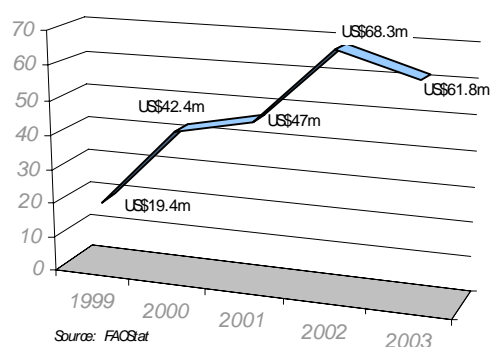
Mango: Java (about 70%), South Sulawesi, NTT.

Papaya: Java (about 60%), NTT, South Sulawesi, South Sumatra.

APPLES

FIGURE 19:

Indonesian Imports of Apples 1999-2003 – Value US\$ millions



Source: FAOStat

Apples are a popular deciduous fruit in Indonesia. The fruit remains a luxury item with import consumption shown in the adjacent graph. China is estimated to now supply 60% of import demand and the USA 30%. While Indonesia is unlikely to become an apple grower, apple juice is a popular beverage (after orange).

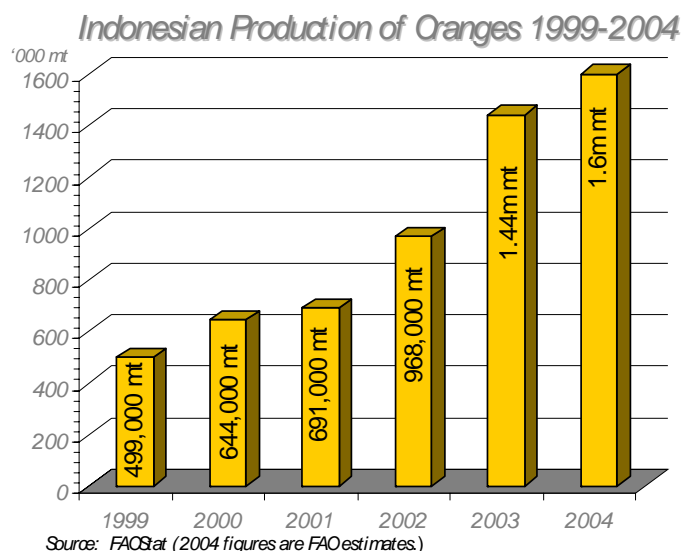
While apple consumption per capita in Indonesia is low (less than 1kg)¹⁰ consumption showed a five-fold increase during the 1990's decade.

⁹ Subsistence to Supermarket II - Agrifood Globalisation and Asia Volume III, Asian Agrifood Demand Trends and Outlook to 2010. DFAT 2004.

¹⁰ Subsistence to Supermarket II - Agrifood Globalisation and Asia Volume III, Asian Agrifood Demand Trends and Outlook to 2010. DFAT 2004.

CITRUS PRODUCTION

FIGURE 20



Indonesia's total orange production has grown strongly. South Sulawesi and Java are the principal producing areas.

Orange juice is a major beverage item in Indonesia.

Local production of oranges has increased significantly and imports of orange juice concentrate are steady.

Orange juice accounts for about 30% of all juice imports by volume¹¹ followed by apple juice.

Other citrus fruits such as lemons and limes are produced in smaller quantities and with smallholder and home-based production, statistics will probably not reflect an accurate dimension for this sector. FAO data is not available for these items in view of their small volumes.

COMPANY PROFILE – PT NIRAMAS UTMA

Niramas Utama produces a range of tropical fruit drinks, based mainly on aloe vera and coconut. The product range also includes jellies, with a carrageen base. The company exports the bulk of its products – mainly to Japan but also China and Taiwan as well as the USA and Australia. The product is attractively packaged. Niramas Utama has factories in Bekasi and also Pontianak, West Kalimantan. The Pontianak plant is being expanded to lift production and the company is negotiating with local farmers to produce mango and rambutan-based products. Niramas Utama is interested in discussing business associations with Australian companies interested in processed tropical fruit-based products.

¹¹ Subsistence to Supermarket II - Agrifood Globalisation and Asia Volume III, Asian Agrifood Demand Trends and Outlook to 2010. DFAT 2004.

TABLE 13:

Investment Opportunities – Fruit & Vegetables

OPPORTUNITY	MARKET SETTINGS & TRENDS	COMMENTARY
Tropical fruit production and processing	Ensuring a consistent supply of raw material is a challenge and many ventures have failed because of irregular supply of varying quality. Prospects nevertheless are good, notably for export, providing (most importantly) that sound supply relationships can be negotiated with the local farming community.	Pineapple processing has been undertaken and has reasonable prospects. Mangoes represent good potential if supply chain and handling arrangements can be improved.
Vegetable processing	Many ventures are succeeding, but usually on a limited scale. Several potato projects have been undertaken, but with limited success.	Potatoes represent an opportunity if associated factors can be resolved. Demand for the end product is good but growing, handling and processing issues still need close attention.
Intensive vegetable processing	Good prospects exist for production of french beans, chillies, and other intensive crops which can be grown on small land holdings.	Many good operations exist but with limited production capacity. Success is highly dependent on supply agreements with farmer groups.

DAIRY PRODUCTS

Indonesian Dairy Industry Snapshot

MAJOR PRODUCTS	Powdered milk, sweetened condensed milk, UHT milk, cheese, yoghurt, ready to drink milk.
TOTAL CONSUMPTION	1.3-1.4 million tonnes milk equivalent
PER CAPITA CONSUMPTION	6-7 litres p.a.
MAJOR PLAYERS	Nestlé , Friesche Vlag, Ultrajaya, Indomilk, Nutricia, Greenfields
TRENDS	Market growing at 12% p.a. with good prospects as dairy products increasingly form part of the Indonesian diet. High skim milk powder (SMP) prices may moderate growth.
IMPORTS	Imports account for about 70% of consumption, which is forecast to increase at a higher rate than local production.

The consumption of milk and dairy products in Asia has generally been at a much lower level than in Western societies. Most Asian countries, with the exception of the Indian subcontinent, do not have a strong culture of milk and dairy product consumption.

Since the 1960s, however, there has nevertheless been a very rapid growth in milk recombination plants throughout Asia, and many very large operations are in evidence today. Recombining technology underpins the import dependence of many Asian countries for milk and dairy products, and has extended from a tradition of ambient shelf stable products into fresh chilled milk and related beverages.

70% of Indonesian milk product consumption is based on imported milk powder.¹² Australia and New Zealand account for 60-70% of Indonesia's milk product imports.

Indonesia remains one of the few dairy markets in the world that is dominated by powdered milk, which represents more than 50% of market consumption.¹³ This is very much a function of the archipelagic geography of the country which makes transport difficult, as well as the low per capita purchasing power of the general population, limited ownership of refrigerators and limited and unreliable cool chain operations.

Nevertheless, like the rest of Asia, Indonesian tastes are changing, and the role that dairy products play in general health maintenance, especially for children's growth and nutrition is increasingly recognised – and hence dairy consumption is growing strongly, albeit from a low base.

Indonesia is ranked as an 'emerging market' for dairy products, exhibiting low, but increasing, per capita milk equivalent consumption. Indonesian milk consumption, at 6-7 litres per year is

¹² Indonesian Milk Producers Association, December 2004.

¹³ Indonesian Milk Producers Association, December 2004.

low within the region. It compares for example with Thailand's consumption of 22 litres per capita per year and Australia's consumption of 98 litres.

Most of Indonesia's domestic production is used for whole milk powder production. Domestic production, however, is steady and imports are expected to continue to support the strong growth in this sector.

Dairy product consumption has now recovered to pre-crisis levels and industry commentary suggests that demand for a range of dairy items will grow in a sustained fashion, as dairy products increasingly become an important element in the Indonesian diet. As well as primary milk consumption, cheese has become increasingly important as an ingredient for food products such as pizzas, other fast food products and bakery lines. It is well to remember, however, that these increases are still from a very small base, with consumption still largely confined within the higher income groups.

Condensed milk still accounts for about a third of Indonesian milk consumption, still reflecting old, traditional purchasing patterns and low per capita spending power. The canned product is particularly suitable for shipping to the outer islands.

Forecasts from the *Subsistence to Supermarket II* series estimate that Indonesian consumption of dairy products will range from 1.8 (low) to 2.3 million tones p.a. by 2010, of which 50% is likely to be met by imports.

Total consumption of dairy products is estimated to be growing at 12% per year. Individual product category growth rates¹⁴ are forecast at:

- Sweetened condensed milk – 5-6%
- Milk powder – 8%
- Infant formula and milk for children – 20-30%
- Liquid milk – 20% plus
- Cheese – 10-15%

THE LOCAL INDONESIAN DAIRY INDUSTRY

The dairy industry in Indonesia has traditionally been tightly regulated, however IMF reforms in 1998 reduced most of the regulatory controls, notably concerning local content (mixing ratio) requirements.

The local industry is largely based on production from cooperatives, comprising 120 units of over 100,000 dairy farmers with 2-3 cows each.¹⁵ Distribution networks for liquid milk are poor and cold storage is limited. Most liquid milk is converted to whole milk powder, which is then reconstituted to produce a range of dairy products such as packaged powdered milk, canned sweetened condensed milk, baby formula, and UHT milk. There is also some very limited processing of other dairy products such as ice cream, cheese and yoghurt. Indonesia's milk processors are efficient and highly competitive. They are all based on Java and include:

- Nestlé (Switzerland)

¹⁴ Indonesian Milk Producers Association, December 2004.

¹⁵ USDA GAIN Report 4030, 2004.

- Friesche Vlag (Netherlands)
- Nutricia (Netherlands) – baby formula
- PT Indomilk – established in 1967 by the Australian Dairy Corporation, now owned by the Salim group
- PT Ultrajaya.

A more recent entrant to the market is Australia's AustAsia Exports, which established a dairy operation, PT Greenfields, at Malang in East Java. This operation now has 2,500 cows and a processing plant producing fresh milk and UHT milk. It is the largest dairy operation in Indonesia operated by a corporation.

CASE STUDY – PT GREENFIELDS

The PT Greenfields dairy is a vertically integrated operation with a two and a half thousand head lot-fed dairy herd, a state of the art milking parlour and a processing and packaging plant.

AustAsia's Edgar Collins says taking a fresh and committed approach has been a large factor in the company's success. The consortium that is behind this project is one of Indonesia's largest chicken producers and stockfeed manufacturers, as well as the biggest importer of live beef cattle from Australia. 'More Indonesian consumers now have refrigeration and I think as that continues to grow the market will expand and the acceptance of products like fresh milk will become a bigger part of Indonesian life.'

The dairy has been built halfway up an extinct volcano in East Java in climatic conditions similar to the Atherton Tablelands in North Queensland. The temperate conditions mean cattle have been sourced from all over Australia. Their feed ration consists of locally grown grasses, corn, kapok, coconut as well as coffee skins and by-products from a local brewery. A lot of the feed ration is prepared at AustAsia's feed mill in Sumatra, which also services cattle rations for the live beef trade and the company's feedlots. 200 people are employed running the dairy, and the milk-processing factory. Mr Collins says what sets the operation apart is that the 30 tonnes of milk produced per day is processed on site.

'As people become better educated they appreciate that milk is one component which is a good nutritional base for children. Additionally, milk is one of the 10 food products that the government considers strategic. Milk is promoted by the government and they give us strong support,' he said. What milk doesn't go into fresh milk, goes into UHT. The one-litre cartons of UHT full cream milk have a one-month shelf life, enabling the product to be distributed around Indonesia and exported to Singapore and Hong Kong.

'We have a lot of confidence in the future of the Indonesian market and consider dairy products a strong growth area for domestic production and export to Asia. Fresh milk is a growing market and we have developed a distribution network to ensure the product arrives in top condition.' Collins noted that a vertically integrated operation was a strong factor in PT Greenfields success. Applying proven Australian technology and production techniques throughout the operation has paid big dividends.

Extracted from the ABC 'Landline' report of 4 April 2004 and Bayliss Associates interview.

COMPANY PROFILE – PT INDOMILK

PT Indomilk was established in 1967 by the (then) Australian Dairy Board. The company was Indonesia's first producer of sweetened condensed milk at its Bogor plant, subsequently expanding its product range to include milk powder, UHT milk, butter, yoghurt and ice cream. The company changed hands in 1986, when the Salim Group became major shareholders. Ice cream is produced in a joint venture operation with Meiji Dairies of Japan. Indofood exports its condensed milk to Australia. Indofood also operates a plant in East Java producing yoghurt drinks - a product rapidly gaining acceptance in Indonesia.

TABLE 14:

INVESTMENT OPPORTUNITIES – DAIRY PRODUCTS

OPPORTUNITY	MARKET SETTINGS & TRENDS	COMMENTARY
Cheese-based products	A good market with sound growth prospects and many Indonesian companies are seeking engagement with Australia. Several are already working with Australian principals to produce block cheese.	A limited number of Australian suppliers can readily find good local associates. There are companies interested in JV operations to produce cheese from Australian curd and also import cheese in bulk and pack for the local market.
Liquid yoghurt drinks	Demand is sound at the high end of market. Challenge is to produce a product for the medium/low market sector.	Opportunities may lie in developing a strong brand, in association with an existing Indonesian dairy producer.
Establishing integrated dairy operations.	The business climate is improving for commercial investments, and an integrated model appears most appropriate.	PT Greenfield has demonstrated that investment in this sector is viable, with a strong local partner.
Flavoured milk	Limited market, undertaken by existing dairy companies.	Some potential may exist for licensing brands.
Ice cream and dairy ice confectionery	Currently limited to the upper income range of the market with limited growth potential – until there is more broad based income growth.	Potential to develop niche products in A1 income group market. ¹⁶ Possibilities also to test low cost ice cream and ices for a wider consumer base, as these have proved popular elsewhere in Asia, especially in urban centres.

¹⁶ A1 is an ACNielsen rating of households expenditure of more than the equivalent of US\$244 per month.

BEVERAGES

The Indonesian beverage sector has experienced rapid change in recent years. There has been robust growth in bottled water sales. (principally in '5 gallon' or 20 litre containers). Municipal water authorities have found it difficult to keep pace with demand for safe drinking water and funding for new water supply infrastructure has been insufficient for existing needs. Groundwater, especially in Jakarta, has long been a major source of supply for many households, but this is declining – and in some areas salinity and contamination are of increasing concern.

The carbonated beverages sector has been relatively static, due largely to the effects of the financial crisis and higher unit cost of drinks as a result of the imposition of luxury tax (10%). The industry lobbied intensively for relief from this tax and it was removed in January 2005. The tax was also removed at the same time from fruit juices, which are experiencing high growth.

Processed, ready to drink (RTD) beverages include carbonated drinks, fruit juices, tea and coffee, cordials (dilutables), drink powders, fruit-flavoured drinks and more recent entrants such as energy drinks and sports (isotonic) beverages. The table indicates sales trends over the last 3 years for the major products in the RTD category.

Soft drinks experienced another year of growth, registering almost 13% growth to reach over 10 billion litres of volume sales in 2003. Although the growth was a slowdown from about 25% in 2002, this does not indicate a more difficult year for soft drinks. The slower growth is rather the result of stabilisation within the bottled water market that experienced boom years in 2000-01.

While RTD coffee and sport drinks markets experienced very strong growth, this needs to be placed in the context of the very small consumer base for these particular products. Bottled water continues to extend its market penetration, whilst carbonated beverages experience relatively less growth.

There are three companies dominating the soft drinks market:

- PT Aqua Golden Mississippi (Danone)
- Coca-Cola
- PT Sinar Sosro.

PT Aqua Golden Mississippi is now a subsidiary of the Danone Groupe of France. Coca Cola Amatil (CCA) of Australia is the principal Coca Cola licensee in Indonesia; its subsidiaries cover all of Indonesia with the exception of North Sulawesi.

The launch of *Frestea* RTD tea from Coca-Cola Amatil in mid-2002 challenged the dominance of PT Sinar Sosro which markets the *Tehbotol* brand, the traditional market leader in Indonesia. Although *Frestea* presents an opportunity for Coca-Cola Amatil to strengthen its presence further in Indonesia, *Tehbotol* retains its dominance.

Prior to 2002, fruit-flavoured drinks were virtually unknown. Launched in the second half of 2002 they took the market by storm, and in less than 2 years dominated the fruit/vegetable juice market category. By 2003, sales volumes boomed to 18 million litres, as more brands entered the market. Fruit-flavoured drinks have become particularly popular as they are targeted at all

income groups and are very competitively priced. They are positioned at a price point just a little above the smaller packaged bottled water. Orange flavour is especially popular with Indonesian consumers, and was invariably chosen by most companies to launch their flavour ranges.¹⁷

The energy drinks sector is another area of high growth, with 'Red Bull' the market leader, dominating the A market segment. A local brand, 'Extra Joss' is challenging Red Bull's position in the medium/mass market, aided by strong promotion and an extensive distribution network. 'Extra Joss' sales grew by 17.3% year-on-year in 2003, much lower than its 5-year compound annual growth rate of 64.8% - as many new players are entering this market segment. On sales figures to the third quarter of 2004, 'Extra Joss' is tracking at an annualised growth rate of 14.6%.

There is continuing potential for growth in soft drinks, especially considering that per capita consumption in 2003 was still low at 46 litres/year. Higher volume sales for soft drinks are still inhibited by the low disposable incomes of the majority of Indonesians.

Given the expectation that the economy will continue to recover, soft drinks are expected to continue their strong growth path and for the period 2003-06, industry forecasts are for an annual 11% growth rate.¹⁸

A combination of high growth and ready consumer acceptance of new brands offering nutritional benefits has produced strong niche market opportunities, particularly for 'functional' beverages such as flavoured waters, energy and health drinks.

¹⁷ Data in this section drawn from Euromonitor International.

¹⁸ Data in this section drawn from Euromonitor International.

Indonesian Bottled Water Snapshot

MAJOR PRODUCTS	Bottled water in 5 gallon (20 litre) bottles as well as individual consumer packs. 80% Of sales are in 5 gallon packs.
TOTAL CONSUMPTION	7,400 - 7,600 million litres
PER CAPITA CONSUMPTION	35 litres p.a.
MAJOR PLAYERS	PT Aqua (Danone), Nestlé /Coca Cola Indonesia and 350 local companies.
TRENDS	Market has been growing at 22% p.a. compound with sound prospects as upgrading water infrastructure is expected to take over 10 years.
ISSUES	High purity spring sources will become scarcer and production techniques may shift to treating alternative water sources.

Heightened consumer concern with the potability of both reticulated and ground water has been behind the extraordinary growth in bottled water sales in Indonesia. Indonesia is now the world's 8th largest consumer of bottled water, in rankings issued by the International Bottled Water Association for 2003.¹⁹

Indonesian bottled water consumption grew at a compound annual growth rate of 22% between 1998 and 2003, second only to China (24.6%).

The Indonesian bottled water market is dominated by PT Aqua, a company that is now owned by Danone of France. PT Aqua is estimated to hold 80% of the Indonesian market, followed by the 'Ades' brand jointly marketed by Nestlé and CCI (Coca Cola Indonesia). Nestlé Waters, which is global leader in terms of bottled water (having 17% of the world market and annual sales turnover of more than US\$6 billion) holds a 65% stake in PT Ades Alfindo Putrasetia.

Generally water for bottling purposes is sourced from natural springs and then filtered and sterilised with ozone treatment. There are over 300 local suppliers of bottled water in Indonesia, as well as 1,500 'filling stations' that fill consumer packs from bulk supplies.

Demand for sources of pure spring water has intensified, leading to competition with local farmers and other water users who fear depletion of their water resources. Developing shortages of suitable spring water sources suggest the water industry may need to investigate alternative production techniques, such as the purification of river and rain water, to meet the continuing burgeoning demand.

The following table illustrates some of the major trends in the Indonesian beverage market.

¹⁹ International Bottled Water Association data 2003, produced by Beverage Marketing Corporation.

TABLE 15:
Indonesian
Beverage
Consumption

	Volume – million litres			Share of total national RTD market			Growth Percent			Value USD million		Growth Volume 2003 to 2004 PERCENT
	2002	2003	2004	2002	2003	2004	2002	2003	2004	2003	2004	
RTD WATER*	6,355	7,041	7,661	78%	79%	79%	31%	11%	9%	660	700	9%
DILUTABLES	21	22	24	6%	6%	6%	10%	7%	8%	120	130	8%
CARBONATED	22	19	19	6%	5%	4%	-10%	-15%	0%	380	360	0%
RTD TEA	15	16	17	4%	4%	4%	5%	7%	2%	210	200	2%
RTD MILK	9.6	10.6	12	3%	3%	3%	15%	11%	15%	230	250	15%
ENERGY DRINKS	8.5	9.6	10.6	2%	2%	3%	22%	13%	12%	310	340	12%
RTD JUICE	1.6	1.9	2.3	0%	1%	1%	21%	20%	18%	50	60	18%
RTD FRUIT FLAVOURED	1.2	2.3	2.7	0%	1%	1%	36%	89%	19%	30	30	19%
ISOTONICS	0.4	0.4	0.6	0%	0%	0%	29%	30%	30%	10	20	30%
RTD COFFEE	0.2	0.2	0.2	0%	0%	0%	110%	12%	26%	10	10	26%
TOTAL NARTD*	355.5	378.4	420.4	100%	100%	100%	24%	9%	8%	2,010	2,100	8%

Source: Association of Beverage Industries, Indonesia (ASRIM) *Includes home and office

* Non alcoholic ready to drink

Table 16

INVESTMENT OPPORTUNITIES - BEVERAGES

OPPORTUNITY	MARKET SETTINGS & TRENDS	COMMENTARY
Introduce new technology for bottled water production.	A strong market with sound growth prospects but with well-established MNC competitors. Collaboration with a strong regional producer a possibility.	Demand is likely to outstrip supply as competition for natural spring water exceeds availability and environmental factors impact on spring water sources.
New fruit blends based on strong brand promotion.	Demand is growing but the market is highly price-sensitive. Upper end market is quality conscious, with opportunities for brand development.	This category is expected to undergo fast growth but challenge will be to tap the middle/low market sectors with competitive offerings.
Health drinks – fortified juices and blends.	High-end consumers are responsive to functional beverages. Volumes low but growth prospects are promising.	Good local companies would be attracted to producing and supporting a branded product with a track record in Australia or other markets.
Energy drinks	'Red Bull' (premium) and 'Extra Joss' (mass market) have entrenched positions, but this is a fickle market where brands with innovative consumer propositions can capture market share.	These products require high promotional support, in media and local point of sale promotion.
Specialty fruit concentrates and premix for 'smoothies.'	Some potential at high end of market.	Low volume for premium market.
Sports (isotonic) drinks.	A growing market segment where global brands are making inroads.	Potential exists for a locally-branded product but brand establishment costs would be high.

MEAT

Indonesian meat consumption is low. The USDA projects per capita consumption of meat in Indonesia to range between 10 and 13kg through to 2010.²⁰ The Washington-based International Food Policy Research Institute (IFPRI) modelling conducted for the DFAT publication Subsistence to Supermarkets Vol III, however, suggests that while still low in world terms, consumption by 2010 could be 12-17kg per capita.

The major meat groups are:

- poultry
- beef and buffalo meat, and
- goat meat.

Pork is also produced in the Riau Islands for export to Singapore, but as Indonesia is a Muslim country, pork consumption, especially in the populous Western part of the archipelago, is negligible.

POULTRY

Indonesian Poultry Snapshot

Major products	Day old chicks (DOC), broilers, chicken cuts, processed chicken products, eggs.
Total consumption	800,000 mt p.a.
Per capita consumption	3.2 kg p.a. (broiler) 4kg p.a. ('native' chicken + broiler)
Major players	PT Charoen Pokhpand, PT Japfa Comfeed, PT Sierad
Trends	Chicken is the cheapest source of protein and potential to increase production is sound. Processed chicken products such as nuggets have excellent market acceptance and high growth.
Issues	Avian flu has dampened demand but is not expected to have a catastrophic effect on the industry.

Chicken meat represents an increasingly larger share of Indonesia's meat consumption. Poultry production in Indonesia has now exceeded pre-crisis levels of approximately 900,000mt p.a. The 1997/98 crisis had a profound effect on the industry – and effectively halved production.

The outbreak of Avian Flu in early 2004 also required the mass slaughter of chickens. While the industry has suffered some heavy blows, production has maintained relatively

²⁰ USDA GAIN Report, ID4023, 2004.

steady levels and most analysts believe the industry will move ahead strongly in the next 2 years.

The USDA²¹ estimates that broiler consumption fell in 2004 to 627,000mt but is expected to grow by 8% in 2005. Per capita consumption of broiler meat at 2.9kg is low, compared, for example, to the Malaysian broiler meat consumption of 34.8kg per year.²² As a relatively cheap and readily available protein source, poultry consumption will continue to grow strongly. Indonesians prefer to eat medium-sized birds (1.4-1.8 kg).

Processed chicken products, such as nuggets, have become extremely popular and sales are estimated by the USDA and other industry sources to be increasing at over 10% p.a.. As the distribution chain for frozen food improves, market penetration for chicken products will increase accordingly. USDA²³ estimates that about 20% of broiler meat production goes direct to franchise restaurants serving chicken.

Most chicken is sold through the wet markets, with only 20% being processed by the major growers, most of whom have integrated operations. Indonesia's major poultry producers are:

- PT Charoen Pokhpand
- PT Japfa Comfeed
- PT Sierad
- PT Leong Ayamsatu Primadona (PT LAP)
- PT Wonokoyo

These 5 producers account for about 75% of Indonesian broiler production.

PT Charoen Pokhpand is Indonesia's largest producer, a subsidiary of the large 'CP' group of Thailand, with extensive operations throughout Asia in agribusiness and food.

PT LAP is a subsidiary of Leong Hup Holdings Berhad of Malaysia, the largest integrated chicken producer in Malaysia. It is vertically integrated and operates 5 broiler farms in the Jakarta region and 7 broiler farms in Medan. The company produces day-old chicks (DOCs) with a capacity of 40 million DOCs per year in Java and 9 million DOCs per year in Medan. The company deals with more than 100 contract farmers in West Java under a similar contract system to that operating in Malaysia.²⁴

The *Subsistence to Supermarket* Series Volume III provides a range of projections for consumption of poultry through to 2010: from a low of 1.25 million tonnes, to mid-range projection of 1.44 million tonnes to a possible ceiling of 1.8 million tonnes, based on a projected per capita level of 5.3 – 7.6 kg.

Modern slaughterhouses for poultry are located on Java. A number of projects for slaughterhouses have been proposed for other areas, notably Sumatra and Sulawesi but to date these have not materialised.

²¹ USDA GAIN Report, *Poultry and products*, ID 4023, 2004.

²² Bayliss Associates interviews, December 2004

²³ USDA GAIN Report, *Poultry and products*, ID 4023, 2004.

²⁴ Bayliss Associates interviews, December 2004.

Feed is the critical input for the industry and feed cost and availability is vital for the industry's development. Industry sources²⁵ indicate in broad terms that:

- feed represents 70% of the price of chicken
- 50% of the feed price is corn
- 40-50% of the corn used is imported

Poultry processors contacted reported strong demand for chicken-based products such as nuggets, chicken balls and other minced chicken products as well as processed chicken parts such as wings.

COMPANY PROFILE: PT SASTRA, MEDAN

PT Sastra was established in 1993 by Ir Sastrawan, who has extensive experience in the poultry and feedmilling industries. The Sastra operation is an intensive breeder facility producing 6 million day-old-chicks (DOC) annually. The company markets DOCs in North and West Sumatra and Riau provinces. There is no modern chicken slaughterhouse facility in North Sumatra and Ir Sastrawan is keen to attract an investor for both a slaughter facility as well as a feedmilling operation. 'Based on current consumption, we believe there is demand for processing 100,000 birds per day. This is currently being processed through traditional markets, with large variations in quality and distribution.'

Ir. Sastrawan continued, 'The area needs a modern slaughtering facility and I believe the economics are sound. The provincial government and the City of Medan are supportive of the project. Along with other local companies, we welcome involvement by Australian companies who wish to become engaged in a solid industry in a major regional market in Indonesia. They will receive a warm welcome'

The International Finance Corporation (IFC), the private sector development arm of the World Bank Group, is working on a poultry and maize development program in South Sulawesi, one of Indonesia's high potential agricultural development areas. IFC assists local groups through PENZA (Programme for Eastern Indonesia Small-Medium Enterprises Assistance). The Australian Government supports PENZA through AusAID, as do the governments of Canada, Japan, Switzerland and the Netherlands.

Maize is an essential ingredient for the development of a competitive poultry industry. South Sulawesi is a productive maize-growing area, as monsoonal seasonality on the eastern and western coasts of the peninsula means two harvests can be produced per year. Up until the present time, there have been few efforts to integrate the various components of maize-feed-poultry-slaughtering-distribution chain. Several developments are in process at the present time which will hopefully consolidate the production and supply chain.

South Sulawesi presents an attractive destination for an investment in poultry as it produces a surplus of maize, has excellent shipping connections to Jakarta and Surabaya and growing local demand for poultry products. The Japfa

²⁵ Bayliss Associates interviews, December 2004.

Comfeed group, one of Indonesia's largest integrated poultry producers, operates a feed mill in Makassar.

IFC has produced an excellent document²⁶ outlining the scope of the poultry and maize industry in South Sulawesi, along with a business plan for the industry.

BEEF

Indonesian Beef Snapshot

Major products	Prime cuts, processed beef, meat balls (bakso balls), fast food
Total consumption	420,000 mt p.a. of beef and buffalo meat.
Per capita consumption	2.3 – 2.5 kg p.a. of both beef and buffalo meat.
MAJOR PLAYERS	Santori (AustAsia/Japfa group), Torohasindo (Buntoro) Consolidated Pastoral Holdings, Great Giant
TRENDS	<p>Beef has re-established its pre-crisis volumes and 2005 should be a good year for the industry. Indonesia is an Asian market with a very strong preference for beef. Low per capita incomes in Indonesia have severely limited market development. As income levels rise, however, beef will become the meat of preference for many Indonesians, although poultry will continue for the foreseeable future as the primary meat source because of its relative affordability.</p> <p>Processed beef products such as sausages and meatballs and blended beef mince mixtures (e.g. the popular local dish of bakso balls) have shown steady growth, which is expected to continue.</p>
ISSUES	Linkages to the feed supply chain are increasingly critical for success and the more highly-integrated companies will prosper.

Indonesia's beef industry is a blend of meat production from local cattle, including buffalo, as well as meat produced from imported feeder cattle, mainly from Australia. Australian cattle have formed the nucleus of the local feedlot industry with Indonesia ranking as Australia's number one live cattle export destination. Indonesia also imports frozen beef.

- Beef and veal production is estimated at approximately 360,000mt in 2004 with total beef and buffalo consumption of 420,000 mt.²⁷
- Per capita consumption is low at between 2.3 and 2.5 kg p.a..

²⁶ International Finance Corporation: Maize & Poultry Program Report, October 2003
<http://www.ifc.org/ifcext/pensa.nsf/Content/AgribusinessLinkages>

²⁷ FAO Estimates.

- Australia remains the major source of live cattle for Indonesia, with exports from Australia of about 360,000 head in 2004.

The economic crisis of 1997/98 had a crippling impact on the Indonesian beef industry. Many feedlot and partnership operations collapsed and the domestic breeder herd decreased with the high rupiah price for beef. Beef processing also became more difficult to sustain, as throughput dropped and unit costs of slaughtering soared.

The beef industry has recovered since 1999, and 2004 was reported to be a good year for the industry as growth returned. Smallholder production still accounts for over 80% of beef production, but the expansion prospects of this sector are seriously constrained by low breeding herd productivity and a scarcity of readily available forage in particular regions. The structure of beef sales differs between outlets. Wet markets dominate sales of beef, but supermarkets sell most imported beef and beef from imported cattle.

The major feedlot companies have their operations in South Sumatra (Lampung) with abattoirs in Jakarta. These are:

- Santori (AustAsia/Japfa group) – Australian interest
- Torohasindo (Buntoro)
- Consolidated Pastoral Holdings – Australian interest
- Great Giant.

Livestock imports include purebred cattle for breeding and feeder cattle for fattening. Imports of feeder cattle rose rapidly until 1997 then dropped to almost nothing during the height of the financial crisis.

Beef continues to be a consumption item for the middle to upper class consumer, with poultry and fish being lower-priced protein sources.

A number of Australian livestock companies have some form of investment in Indonesian feedlots or meat processing and they include AustAsia Export Services, Consolidated Pastoral Holdings, the Heytesbury Group and Australian Agricultural Company.

The fortunes of the industry generally follow the health of the Indonesian economy, with consumers moving to beef as soon as they have sufficient disposable income. Other factors impacting on the industry have been imports of falsely labelled frozen beef, notably beef/buffalo sourced from India but presented as being of Australian origin, which caused significant market disruption during 2003. The fortunes of the local cattle industry also impact upon imports, with the most recent drought resulting in higher slaughterings of local cattle.

GOAT MEAT

Goats are a common sight in Indonesia, and are particularly sought after during Islamic festivals. A particular time is during the feast of Eid al-Adha²⁸ which commemorates Abraham's willingness to sacrifice his son to God. During this festival, many goats are sacrificed.

There is little intensive goat farming in Indonesia however several companies (including Australian interests) are investigating and trialing intensive goat raising.

PORK

Although Indonesia is a Muslim country, the Salim Group subsidiary, KMP Group, has a very substantial pig farming operation, with some 270,000 pigs, based on Bulan Island in the Riau Group, just off the coast of Singapore. The facility supplies fresh pig meat direct to the Singapore market.

Australian animal husbandry is regarded by the group as 'top-notch', and it is readily acknowledged that the application of Australian technology has greatly improved the operational efficiencies of KMP's Bulan facility. The vet and general manager of the operation are Australian, and the facility extensively uses Australian nutritional formulations and animal management practices. The operation complements Salim's QAF Meat Holdings Limited investment at Corowa in NSW where the capacity exceeds one million pigs.

The Salim investment in both Indonesia and Australia is an excellent example of a very successful integration of Australian technology into Indonesian agribusiness to service a third market - and where the two operations run in parallel in a highly competitive international market.

²⁸ Eid al-Adha (The Festival of the Sacrifice) is one of two major Islamic celebrations and takes place on the tenth day of the Islamic month Dhul-Hijjah, the last month of the Islamic calendar. It is the time when millions of Muslims from around the world make an annual pilgrimage to Mecca. The date is not fixed in Western (solar) calendar terms, as it is determined by the Muslim lunar calendar. In 2006, there will be two Eid al-Adhas: 10 January and 31 December. In 2007 Eid al Adha will fall around 20 December.

TABLE 17:

INVESTMENT OPPORTUNITIES – MEAT PRODUCTS

OPPORTUNITY	MARKET SETTINGS & TRENDS	COMMENTARY
Poultry-based products	Chicken nuggets are a particularly hot item. Other chicken-based products are well-accepted but lack of satisfactory cold storage capacity is always a limitation to volume sales.	There are opportunities to differentiate a new product from standard offerings – either as fast food accompaniments or branded supermarket lines.
Integrated poultry production	The market is dominated by strong producers with extensive supply chain capacity. Feed milling/supply links are critical.	Possibilities may exist to work with an existing producer for slaughter and production of finished product.
Beef products	Beef remains a premium product but there are possibilities for expanding sales of extended beef-based foods such as meatballs.	The 'modern' beef sector produces high quality product for the high end market. New markets for derivative products offer best potential for new market entrants.
Feed lotting	A range of companies are strongly embedded in this market, either Australian or Australian-related.	High hurdles to market entry with a steep experience curve to make profits.
Goat farming	Intensive goat farming appears to have good potential.	Some veterinary issues remain to be resolved concerning Australian breeding goat imports.

BAKERY PRODUCTS

Indonesian Bakery Snapshot

MAJOR PRODUCTS	Instant noodles (and some fresh noodles, biscuits, bread, pastries, cakes, pasta).
TOTAL CONSUMPTION	N/A
PER CAPITA CONSUMPTION	N/A
MAJOR PLAYERS	Indofood, Mayora Indah, Sari Roti, Khong Guan, Wings and many others.
TRENDS	Instant noodle sales are continuing to grow well and bakery lines are also enjoying good growth as the economy improves.
ISSUES	Apart from instant noodles and biscuits, most bakery lines are consumed by the upper middle to high end consumer. Cereal-based products which can compete in the lower end consumer bracket also have good prospects.

Indonesia's bakery sector is large and growing. The production of flour is dominated by the Bogasari Group, which operates two of the world's largest flour mills – one in Jakarta (10,000mt per day capacity) and Surabaya (5,900 mt per day capacity). Bogasari is controlled by the Indofood Group of companies, Indonesia's largest food conglomerate, which is owned by the Salim Group, through First Pacific Company of Hong Kong. Indofood and its subsidiaries have sales of over US\$2 billion per year.

Australia is a major and traditional supplier of wheat to Indonesia, with a market share of about 60%.

Bogasari controls 70% of the Indonesian flour market, with three other mills accounting for 20 percent of the market. The remaining 10 percent of the Indonesian flour market (about 300,000mt) is supplied by imported flour, with Australian flour comprising over half of these imports.

As is the case in most other Asian countries, Indonesian consumers have increasing demand for a wider range of wheat-based processed foods, with convenience of preparation being a major sales factor. Wheat-based products which are experiencing sound growth include instant noodles, breads, cakes and pastries, snack foods, biscuits and pizza.

The growth of the instant noodle market represents one of the major shifts in Asian food consumption patterns. PT Indofood Sukses Makmur claims to be the world's largest producer of instant noodles. Instant noodles were a Japanese invention, created after World War II. They are easily prepared to be consumed with a wide range of meats,

vegetables and spices. Additionally, instant noodles are easy to store and transport. Many instant noodle varieties are flavoured with a variety of ingredients.

Instant noodles have a high market penetration, with distribution at street corner level in any Indonesian city – or small village.

Indofood's noodle brands '*Indomie*' and '*Supermie*' are market leaders in Indonesia with several other brands (Wings in particular) also recording strong sales as this market category continues to record double digit growth. Industry sources put current annual sales growth at around 10% p.a..

Bakeries have become a common sight in Indonesia, with many outlets producing a range of breads but also pastries and cakes. There is an estimated 10,000 bakeries in Indonesia, many of them small 'mom and pop' operations, but there are also many top class bakeries producing for the middle and upper consumer segment.

On the fast food front, pizza restaurants are now common, again catering to the middle and upper end consumer. There are now more than 100 Pizza Hut restaurants in more than 20 Indonesian cities. According to Pizza Hut Indonesia President Director, Mr Stephen McCarthy, company sales have been experiencing 20% growth over the last four years.²⁹

In the top class malls, also several bread-based franchises have become highly popular, notably 'Bread Talk' a Singapore franchise which bakes on site in modern malls and produces an innovative range of bread-based snacks. While consumers of these lines are again in the upper middle to high end category, the popularity of these outlets does indicate the acceptance of bread-based products to Indonesian taste and 'Bread Talk' has cleverly blended a bread based product with a range of ingredients to appeal to local tastes, including cheese and fruits.

In addition to individually owned local bakeries, larger food processors manufacture bread for distribution at supermarkets and local stores such as mini-markets.

Biscuits are a common element in Indonesian diets, with several major local manufacturers including Arnott's from Australia. Offerings range from high-end biscuit types to standard 'digestive' biscuits, which are a common snack item throughout Indonesia. While biscuits are a well-entrenched food item, a number of sources suggest that market growth is moderate - 5% or less - and that local capacity is adequate to cater for market growth in these conventional product lines.

Nutritional biscuits, as a functional food, are produced in Indonesia and are an important item in rural areas to provide essential dietary ingredients such as calcium, vitamins and other minerals.

Pasta is produced in Indonesia and is a product for the upper to high-end consumer. Pasta restaurants are common, notably in the premium shopping malls.

²⁹ Jakarta Post, 17 February 2005.

In terms of recent Australian investment, the CBH Group of Western Australia announced a A\$72 million investment in Asian flour milling in association with its joint venture with the Salim Group, Pacific Agrifoods in late 2004. These investments will provide CBH with a significant position in flour milling and grain handling in Indonesia, as well as in Malaysia and Vietnam.

COMPANY PROFILE – PT INDOFOOD SUKSES MAKMUR TBK

PT Indofood Sukses Makmur is one of the world's largest producers of instant noodles and, through PT Bogasari, the one of the largest flour millers in the world. Indofood operates one of the most extensive distribution networks in Indonesia. The company also manufactures infant cereals, sauces, seasonings, flour, branded edible oils, snack foods and margarine.

Indofood is a publicly traded company, and its major shareholder holder is the First Pacific investment group of Hong Kong. Indofood's products are distributed mainly through its subsidiaries that deliver the company's products to more than 150,000 retail outlets in the country. The Indofood group employs over 40,000 staff.

Indofood is a major buyer of Australian wheat for its noodles and bakery operations. The company's divisions are always seeking new product opportunities and welcome approaches from Australian firms with food product propositions that complement their current activities, including vegetables, health foods and dairy products.

TABLE 18:

INVESTMENT OPPORTUNITIES – BAKERY PRODUCTS

OPPORTUNITY	MARKET SETTINGS & TRENDS	COMMENTARY
Bakery ingredients	Market is experiencing solid growth and is well-supplied at both the premium and the price-sensitive end.	Potential exists for working with existing suppliers to produce speciality lines such as fruit and nut-based fillings, flavours and additives.
Bakery operation	A crowded market with many competitors.	Fine profit margins, except for specialty outlets.
Bread-based franchises	New franchises are doing well, likely to be followed by 'me too' operations.	A high 'fad' component applies to these franchises, but Singapore companies have demonstrated the popularity of innovative bread-based snacks.
Noodles	Several large players with extensive distribution networks.	Industry is innovative and new brands are constantly appearing. Investment in this sector would require a mass market strategy.

Biscuits	A steady market with well-established players, but usually offering 'standard' and unexciting products.	As a more recent entrant, Arnott's have demonstrated that the market responds well to new products.
Cereals	A profusion of brands, but an upper medium/high segment product.	Some niche opportunities as healthy brands start to make inroads.

COMPANY PROFILE PT ARNOTTS INDONESIA

Arnott's is Australia's largest biscuit company and has an extensive manufacturing and distribution operations in the Asia Pacific region. Arnott's has a long history of trading into Indonesia, and in 1995, Arnott's entered into a JV with Helios Foods, an Indonesian biscuit and snack manufacturer to manufacture Arnott's biscuits for the local market, under the subsidiary PT Helios Arnott's Indonesia.

In 1997, Arnott's acquired full control of the business, which now trades under the name PT Arnott's Indonesia. The business, which is situated on a 17-acre site, employs around 3,500 staff and produces more than 24,000 tonnes of product per annum.

Since its 1997 takeover by the Campbell Soup Company, Arnott's has continued to grow its brand in the Indonesian market - backed by advanced processing technology and marketing. Arnott's views Indonesia as a key manufacturing base for its regional market in South East Asia.

Arnott's has developed biscuit styles and tastes specifically for that market - even to the extent of introducing a wafer-style version of the company's iconic Tim Tam biscuit. The Indonesian operations are important to Arnott's. They play a key role in their offshore operations and are expected to grow substantially in the years to come.

CONFECTIONERY

Indonesian Confectionery Snapshot

MAJOR PRODUCTS	Chocolate, gum confectionery, sugar confectionery.
TOTAL CONSUMPTION	N/A
PER CAPITA CONSUMPTION	N/A
MAJOR PLAYERS	Cadbury Schweppes, Nestlé , Mayora Indah, Ceres, Mars, Kraft.
TRENDS	Up. Hypermarkets are an increasingly important outlet for branded candy products.
ISSUES	Market entry is tough, with many well-established local and global producers. Licensing of key brands is preferred mode of entry, with co-production and brand development.

The Indonesian confectionery industry is dominated by global brands, with a myriad of local producers catering for specialty lines or selling into particular regional markets. Indonesia is a major world producer of cocoa. Chocolate-based products are popular. Nestlé and Cadbury-Schweppes are major players in the Indonesian confectionery market. The Mars group has an operation in Indonesia, also offering its well-known global brands.

The market for confectionery in Indonesia increased between 1998-2003, growing at an average annual rate of 2.1%.³⁰

The leading company in the market in 2003 was Cadbury Schweppes. The second-largest player was Mayora Indah, with Ceres Natural Foods (Petra Foods) in third place.³¹

Fruit gum candies are particularly popular in Indonesia and a profusion of brands compete in this market from both global companies and local producers. Small packaging (or no packaging) also assists the achieving maximum reach in the general market.

The development of supermarkets and hypermarkets is also helping to increase confectionery (notably chocolate-based product) sales. Euromonitor³² has highlighted the strong correlation between the improved handling and merchandising achieved through supermarkets and increased chocolate sales. In developing country markets, like Indonesia, the improved storage conditions provided by modern stores have greatly improved the quality of confectionery at the point of sale. This is especially the case with

³⁰ Datamonitor report, November 2004.

³¹ Datamonitor report, November 2004.

³² Euromonitor report on world confectionery markets, 2004.

heat sensitive goods, such as chocolate based items.

While the economic downturn has impacted confectionery sales, these products are readily amenable to sale in small packs. A combination of attractive packaging, including cartoon figures, has ensured that point of sale appeal and affordability of candy products for children has maintained market volumes.

Lindt chocolates are an example of a premium brand that grew strongly during the pre-crisis period and has maintained its position through the clever use of packaging and product sizing.

COMPANY PROFILE: PT NIRWANA LESTARI (PETRA FOODS)

One of the world's major manufacturers and suppliers of cocoa powder, cocoa butter and cocoa liquor. Petra Foods also manufacture and/or distribute branded consumer products, primarily chocolate confectionery for which they are the market leader in Indonesia. Petra has manufacturing plants in 6 countries and sales outlets in 30 countries. The company has established long-standing relationships with food manufacturers around the world – who are increasingly outsourcing their manufacturing requirements. The company is a market leader in Indonesia and operates an extensive distribution network, which is attractive to owners of 3rd party brands.

Petra's branded chocolate confectionery and third party chocolate consumer products command a 57% share in the urban grocery market for chocolate confectionery in Indonesia. Petra began exporting from Indonesia in 1988 and now sells chocolate confectionery products in 17 countries, including Thailand, Japan, the Philippines, Hong Kong, Australia and China. They also distribute third party brands in Indonesia, Singapore and Malaysia, capitalising on their existing distribution channels.

The company is headquartered in Singapore and their principal operations are in Singapore, Indonesia, Malaysia, the Philippines, Thailand, Brazil and Mexico. Their Indonesian manufacturing facilities are in Bandung. Petra Foods' 'Ceres' chocolate rice (or sprinkles) was introduced in the 1950s and is a strong brand name in Indonesia. Petra Foods have indicated an interest in working with Australian companies in the chocolate confectionery market in Indonesia.

COMPANY PROFILE: PT UNICAN SURYA AGUNG

Unican is an Indonesian confectionery company, established in 1981. The company produces a wide range of hard and soft candies as well as chocolate confectionery. Unican has adapted well to market changes in Indonesia with a progressive approach to introducing new lines to meet rapidly changing consumer tastes. They have 2 factories close to Jakarta, which represents their major market although they distribute nationally and also export to Australia. About 70% of Unican's sales are to the mass market with 30% sold as branded product. Supermarkets and hypermarkets such as Carrefours are volume buyers of these products. Unican produces a range of products under licence, using Disney, 'Barbie', Warner Bros and 'Hello Kitty' characters. Their products are attractively packaged, many in small sizes for maximum impact at point of sale. Unican are interested in discussing business cooperation in confectionery with Australian companies.

TABLE 19:

INVESTMENT OPPORTUNITIES – CONFECTIONERY

OPPORTUNITY	MARKET SETTINGS & TRENDS	COMMENTARY
Chocolate-based products	Many competitors, including MNCs such as Nestlé , Mars, Cadbury-Schweppes and others.	Niche opportunities exist, mainly at the premium end of the market. Co-investing in new brands with an established producer is likely to be the most effective form of market entry.
Sugar-based hard confectionery and gum candies	A very crowded market, well-segmented with both MNCs and local companies. Access to a strong distribution chain is critical to success.	Licensing and brand development with a local company would be the preferred and safest method of entering the market.
Functional confectionery products – muesli bars, energy bars	A premium product category where MNCs have strong brands (e.g. Milo).	Potential again for licensing with one of the Indonesian producers, but market volume is limited and growth would be off a small base.

SNACK FOODS

Indonesian Snack Food Snapshot

MAJOR PRODUCTS	Traditional snacks, nuts, vegetable chips, prawn crackers
TOTAL CONSUMPTION	US\$450 million (USDC estimate)
PER CAPITA CONSUMPTION	N/A
MAJOR PLAYERS	Cadbury Schweppes, Nestlé , Ceres, Mayora Indah, Indofood Frito-Lay, Mars.
TRENDS	Up. A diverse sector with many unbranded local products marketed. Market trends in the upper segment towards healthier items, where niches will increasingly yield opportunities.
ISSUES	A tough market for any new investor with a huge number of producers, large and small.

The bulk of Indonesian snack foods are traditional items, available everywhere from roadside warungs and small shops – or cooked on the street. These include foods with a short shelf life such as tempe and moist snack foods such as buras, lemper and nagasari, as well as those with a medium shelf life, such as dodol (semi-solid food), and those with a longer shelf life, including snacks such as cookies and krupuk (prawn crackers).

Tempe (or tempeh) is a solid fermented soya bean 'cake' which is widely consumed in Indonesia. It forms an important part of the diet of many Indonesians, and is a source of dietary protein.

Packaged snack foods have made inroads and again, volume of sales have been influenced by Indonesia's economic conditions.

Estimates of the value of Indonesia's snack market vary considerably, but it is generally considered to be in the range of US\$450 million.³³ Of this total, traditional snacks account for about 60 percent of the total, while Western snacks comprise about 20 percent.

The remaining 20 percent of the market is peanuts and other nut snacks. Both large snack producers and SMEs play key roles in the snack food market. Generally, larger firms produce Western style snacks for middle and upper income consumers, while SMEs produce mainly traditional snacks for lower income consumers. Snacks produced by SMEs are often not branded and sold in bulk without packaging. However, these snacks are popular and compete very strongly against snacks produced by large-scale

³³ US Department of Commerce, ITA Report 2004.

manufacturers.

Continued strong growth in the snack food market is expected. If the current rate of growth continues, the Indonesian snack market could reach a value of 6,000 billion Rupiah (A\$723 million) or more by the year 2007.³⁴ Snacks are a major part of the daily diet for many Indonesians, as can be seen by the abundant variety of traditional local snacks available throughout the country. The wide availability of these snacks is due to the large numbers of SMEs and home industries operating in this market sector. The majority of these snack producers often market their snacks only within a very local area.

The wide availability of traditional snacks gives this segment of the snack industry an advantage over Western snacks, which are mainly found in modern retail outlets in urban areas. Traditional snacks made by local SMEs can be found in almost any outlet nationwide, from larger retail stores down to small village shops and kiosks. Only a select few SME snack producers sell their products through modern retail outlets because the fees charged are usually too high. The vast majority of snacks produced by SMEs are nuts, crackers, and chips, which make up almost 70 percent of the entire snack market. Sales of snacks such as granola bars and energy bars in Indonesia are small. Product awareness of snack bars remains low among local consumers. There is increasing interest in potato-based snacks, aimed at the medium to upper level consumer. Smaller pack sizes are also an important feature of this market.

COMPANY PROFILE: PT MODERN FOOD INDUSTRI

Modern Foods is a subsidiary of Indonesia's Modern group of companies, which commenced business in the early 1960s as a small photo shop and has since grown to a major publicly listed corporation, as exclusive distributor for Fuji Film of Japan, and operates a national network of 350 Fuji image outlets, complemented by 5,000 small retail outlets. The company has associations with Pioneer of Japan and Lucent Technologies USA in the electronics manufacturing sector, as well as being sole agents for Ricoh copiers in Indonesia. The company also distributes a well-known brand of baby products from Japan. The Modern group has over 6,000 employees.

Like a number of Indonesian corporations, Modern have diversified to the food industry with the creation of ModernFood Industri 2 years ago, initially to distribute food products using the power of their extensive distribution network throughout the archipelago, and also building brands which will complement the power and reputation of the Modern group of companies. ModernFood is distributing a range of rice crackers, confectionery, juices and isotonic beverages. The company wants to develop brands that provide high value, nutrition and wholesomeness to the consumer. They are interested in exploring manufacturing relationships as brands are developed and see Australia as a logical partner in the food and beverage sector.

³⁴ US Department of Commerce, 2004.

TABLE 20:

INVESTMENT OPPORTUNITIES – SNACK FOODS

OPPORTUNITY	MARKET SETTINGS & TRENDS	COMMENTARY
Branded snacks such as chips, corn and potato-based	Increasing trends towards potato-based snacks.	Very high market entry barriers including cost of brand development and distribution.
'Healthy' snack foods and bars	Upper market segment will increasingly take up these lines, but competition will be intense.	Selective market opportunities could be accessed by working with a supplier to the premium end of the market.
Nut-based products	Very strong local competition and a good raw material base.	Only potential would exist for unique or highly tailored formulations.
'Novelty' items	The Indonesian market will always be attracted to new lines with popular and fashionable themes.	Probably an area for larger firms with strong promotion and distribution networks, who are always receptive to new product types.

PT GARUDAFOOD

Garudafood is a market leader in the peanut snack industry, expanding their original peanut line to include innovations such as crispy peanuts, coated peanuts, honey-coated and peanuts with flavored skins. Garudafood has expanded into other snack lines, such as biscuits (1997) and jelly food (1998). The company employs over 15,000 staff.

An associated company runs peanut plantations in cooperation with peanut growers, particularly in West and Central Java, so that it can purchase from peanut growers at competitive prices. Independent surveys indicate that Garudafood has a dominant 65 percent market share in peanut snack products in Indonesia. To strengthen its base in the snack industry, in 1997 the company entered the biscuit market. Its biscuit division, under the trade marks of Danza and Gery, have developed markets for wafer-stick biscuits in Central and East Java.

During the economic crisis in May 1998 Garudafood entered the jelly business. Despite its short experience in this business, the business is profitable, with strong market demand in Indonesia and the Middle East. Garudafood operates its own distribution arm, which has 64 depots and 10 sub-depots to provide services to over 140,000 customer outlets across Indonesia.

The strength of this network was demonstrated when Universal Robina Corporation, a giant snack manufacturer from the Philippines agreed to work with Garudafood to distribute its products in Indonesia.

BABY FOOD

Indonesian Baby Food Industry Snapshot

MAJOR PRODUCTS	Infant formula, breast-feeding supplement, prepared baby foods and cereals, infant snacks.
TOTAL CONSUMPTION	N/A
PER CAPITA CONSUMPTION	N/A
MAJOR PLAYERS	Numico, Sari Husada (SGM brand, Nutricia associate), Indofood Group (Gerber), Heinz, Nestlé .
TRENDS	Up. Baby formula sales are reported to be increasing 15-20% p.a..
ISSUES	The infant feeding market is dominated by multinationals and their affiliates, who operate extensive distribution and promotional networks, down to village level.

Indonesia is a major market for infant formula and baby foods, with the world's leading MNC's engaged in the business with local production and distribution facilities.

These companies have extensive marketing programs, often in association with healthcare organisations. Major infant formula brands, such as SGM and Nestlé, control very large market shares and command considerable consumer confidence.

Increased education on infant nutrition has resulted in a corresponding move towards quality infant formula, either as a supplement or replacement for breast-feeding. Condensed milk cans in Indonesia must now carry the warning – 'Beware! Not Suitable for Babies.'

The major players in this industry compete aggressively for market share and all operate extensive programs to promote their products throughout the archipelago.

COMPANY PROFILE: PT SARI HUSADA (CLEARED)

PT Sari Husada Tbk was established in 1954 as NV Sari Dele - under the impetus of UNESCO – to provide nutrition to pregnant and lactating women and their babies. The company has extensive manufacturing and distribution operations throughout Indonesia.

The company's core business is infant milk formula and they are a market leader in Indonesia with their SGM brand. Their product range includes infant milk formula as well as 'growing up' milks with various flavours. Ready to drink milks as well as baby biscuits are to follow soon. The company is 80% owned by *Nutricia International BV* of the Netherlands. It was sold to Nutricia following the 1987/89 financial crisis by the Tigaraksa Group to help clear its foreign debt.

Soeloeng Hamonangan Nasoetion, President Director of Sari Husada emphasised the strength of the company's core business, which has been backed by an impressive financial performance. The company is listed on the Jakarta and Surabaya stock exchanges. Sales revenue in 2004 was over Rp 1 trillion (A\$153,000 approx.).

Mr Nasoetion noted that Australian investors in the food sector will find a dynamic and demanding market place, but growth prospects for the future were sound. He welcomes approaches from Australian companies interested in investment or manufacturing products for the infant market that are complementary to Sari Husada's current range.

TABLE 21:

INVESTMENT OPPORTUNITIES – BABY FOOD

OPPORTUNITY	MARKET SETTINGS & TRENDS	COMMENTARY
Traditional baby foods	Dominated by MNCs and huge cost barriers to market entry to replicate product penetration at village level.	Prospects may lie in working with major companies on co-production of speciality formulated lines.
Infant formula	Dominated by MNCs.	'House brands' may have limited appeal in this sector.
Infant foods	High emphasis on child nutrition is driving strong market growth.	Potential for working with local companies to develop healthy and nutritious brands, particularly drawing on success in Australia or other markets.
Healthy child snacks.	Growing demand in upper market segments may lead to opportunities in mass market over time.	Australian companies with a strong track record will probably attract interest from Indonesian companies seeking proven brands and concepts.

FOOD INGREDIENTS

Increasing food quality requires an array of food ingredients – some are complex formulations and others are well-known commodities such as salt. Emphasis is on food quality and regulation by Indonesia's BPOM has resulted in higher disclosure levels for processed food products and this includes most additives and related ingredients.

Food ingredients include the following products:

- Flavours and essences
- Fragrances
- Seasonings
- Food colours
- Stabilisers
- Bread improvers
- Leavenings – yeast-based products
- Baking powder/aerators
- Vitamins, amino acids, minerals
- Glazes
- Herbs and spices
- Cocoa butter and other cocoa-based ingredients
- Milk fat and related products such as butter fat and whey
- Gelling agents
- Shortening
- Oils
- Salt
- Sugar and derivatives
- Preservatives.

This is only a small part of the range of products that are critical ingredients in the production of processed foodstuffs. Others are whole foods in themselves, such as dried fruits, chocolate blends, pastry mixes, honey and nuts.

Ingredient suppliers are usually not as visible as their customers, and these companies often provide an extensive range of products to cater for most food processing applications. A number of Indonesian companies provide a range of locally produced and imported products.

Flavours and essences are often highly complex products and are usually produced by international companies and imported for the Indonesian industry. Other ingredient lines are locally made, notably where there is a raw material advantage, such as spices or cocoa-based ingredients. The core raw material of many sophisticated ingredients can also be imported and then blended locally with a so-called carrier such as water, sugar, flour or oil.

Food products consumed by the higher income market usually contain ingredients and additives of world-class quality, with a high imported component. Growth in this sector is

currently estimated by trade sources at 10% plus with attendant high levels of profitability.³⁵ The middle to lower market offers large volume potential for ingredient producers but is highly price sensitive. Clever product formulation and presentation is critical in this sector to achieve the correct blend of product functionality and price.

The growing bakery sector is a strong market for food ingredients, ranging from basic products such as bread improvers to fancy fillings and toppings for cakes and pastries.

CASE STUDY: CHEETHAM SALT

Cheetham Salt, a member company of Australia's Ridley agribusiness group, established a 100% Australian-owned Indonesian company, PT Cheetham Garam, in 1998.

Cheetham produces salt for food and industrial applications at a plant in Cilegon, West Java. Cilegon was chosen as a production site in view of its proximity to major customers, as well as nearby efficient port facilities for salt discharge. Bill Poynton, Cheetham CEO, stressed the importance of the Indonesian food industry to their business. 'Major food producers, such as Indofood and Unilever demand the best food ingredients and we provide international quality salt for key processed food items, such as instant noodles, soups and sauces.'

Cheetham processes both Indonesian and imported salt from Australia. Bill Poynton noted 'We have excellent relationships with our Indonesian buyers and our experience as an investor has been good. Salt is, however, subject to government regulation and import licensing, which adds a more complex dimension to our business. As the Indonesian economy is opened further to global competition, the need for government controls over the salt industry will hopefully not be necessary.'

³⁵ Bayliss Associates interviews, December 2004.

CASE STUDY: PT PRAMBANAN KENCANA

Prambanan Kencana is one of Indonesia's major suppliers of high quality food ingredients. The company was established in the 1950s as a supplier of agrochemicals and in 1972 started importing foodstuffs and ingredients from the Netherlands, followed closely by local ingredients manufacture in association with a Dutch company.

Prambanan Kencana supplies primarily to the baking and confectionery industries, offering over 1,000 product lines. 60% of their ingredients are locally-produced and the others are imported - some from Australia.

President Director Danny Solichin emphasised the continuing strong demand for quality ingredients. 'Providing top class technical backup is critical to our business' Danny Solichin stressed. Prambana Kencana operates a training school for their clients' pastry chefs with 9 trainer technicians. Danny Solichin also noted 'Two new independent bakeries are opening every month in Jakarta so it's a really competitive and innovative market where consumer taste is changing rapidly. The rapid success of the 'Bread Talk' franchise from Singapore is evidence of the high velocity of this market sector.'

Prambanan Kencana is interested in discussing food ingredient business opportunities with Australian companies.

SEAWEED-BASED FOOD INGREDIENTS

Indonesia is the world's second largest producer (after the Philippines) of tropical seaweeds for the extraction of food additives and stabilisers. Indonesia exports much of its seaweed in unprocessed, dried form but there are also several producers of carrageenan and agar-agar, as well as semi-processed product.

As only 20% of the dried seaweed is used for extraction, there is a strong case for local production, at least to the semi-refined stage, rather than shipping unprocessed dried weed. Sulawesi is the main centre of production with South Sulawesi contributing 25% of Indonesia's output. Unlike in the Philippines, Indonesian waters are generally protected from hurricanes, and this assists seaweed production.

Indonesia's islands provide excellent sources of commercial seaweed species, such as *Eucheuma Cottonii* and *Eucheuma Spinosum*, sources of carrageenan. Carrageenan is one of the principal extracts of seaweed, used as a thickener and viscosity control agent in a range of foods from pet food to ice cream to provide texture, structure and stability. It is an essential component of many convenience foods. Carrageenan also has an advantage over animal-based gelatine as a *halal* ingredient.

While these products have similar gelling and viscosity modification properties, their applications do overlap and there are therefore distinct markets for all three products, which are commonly identified in food ingredient terminology as E406 (agar-agar) and E407 (carrageenans).

The global market for carrageenan and agar-agar is estimated to be growing at 5-10% per annum with sound market potential as these products are not only extremely effective, but consumer preference favors natural rather than synthetic ingredients.

Other commercial species of seaweed in Indonesia, such as *Gelidium Gracilaria*, are rich sources of agar-agar, another gelling agent that is a major ingredient in Asian foods (particularly in Japan) as it forms a highly stable gel at room temperature. Agar-agar is also used as a culture medium for microbiological applications.

The *International Finance Corporation* (IFC), the private sector development arm of the World Bank Group, has introduced an innovative plan to help Indonesia's seaweed farmers through PENZA (Programme for Eastern Indonesia Small-Medium Enterprises Assistance). The Australian Government supports PENZA through AusAID, as do the governments of Canada, Japan, Switzerland and the Netherlands.

The PENZA program is centred on the islands of Eastern Indonesia and endeavors to harness the energies of small companies and farmers to stimulate economic growth and reduce poverty.

Indonesia's seaweed resources provide an excellent raw material source for development and the industry is heavily dependant on cheap labour, where Indonesia is highly competitive.

The seaweed processing industry has many advantages for investment, and these are set out in a comprehensive IFC paper³⁶, which includes a detailed business plan for the industry.

Some of the positive characteristics of the industry are:

- Ready availability of quality raw material
- Cheap labour source, with few alternative occupations for coast dwelling villagers
- A short production cycle- about 45 days
- Low fixed and variable costs
- A cash crop with good returns to farmers, ensuring steady supply
- Internationally traded product.

Producing ingredients to food grade quality, which requires aseptic drying (rather than sun-drying) adds high value to the product.

CASE STUDY: PT INDOKING ANEKA AGAR-AGAR INDUSTRI

Indoking is based in Medan and is a private company, operated by the Halim family. The company buys dried seaweed from Sumatra, Kalimantan and Sulawesi and extracts agar-agar at its Medan processing plant. The bulk of the company's production is exported to Japan and other Asian destinations for use as a gelling agent for foods. Agar-agar is a naturally based product that forms high strength gels at room temperature. It is a superior ingredient to cheaper cellulose-based thickeners and stabilisers. President Director Pak Tomas Halim is proud of his company's achievements and the international acceptance of his product by the food industry. He is planning to introduce a new range of agar-agar products for microbiological applications. Mr Halim is interested in discussing business opportunities in seaweed products and derivatives with Australian companies.

TABLE 22:

INVESTMENT OPPORTUNITIES – FOOD INGREDIENTS

OPPORTUNITY	MARKET SETTINGS & TRENDS	COMMENTARY
Ingredient formulation	Excellent growth prospects, particularly in ingredients for convenience food and mass markets.	Indonesian companies are well-positioned to enter into collaborative business associations in blending and formulation of ingredients.
Seaweed processing	A developing area where global demand is high and Indonesia is a rich source of raw material. Production close to source makes economic sense.	International agencies such as IFC are keen to support the industry.
Fruit-based fillings	Good potential but a highly competitive sector.	Australian products are in the market. Greatest potential in dried fruits, apple and temperate fruit fillings.

³⁶ International Finance Corporation – Seaweed Program Report, October 2003 - <http://www.ifc.org/ifcext/pensa.nsf/Content/Publications>

HALAL FOODS³⁷

In terms of emerging investment opportunities, proposals have been made by Indonesian interests to develop capacity in halal food production, to enable Indonesia to become a major exporter of halal food products, particularly to the Middle East, where Indonesia's Muslim status and production capability are recognised and well-received.

The term 'halal' is a very broad one, and refers to all that is *lawful* or *permitted* under Islamic law. Its opposite is 'haram' and refers to all that is forbidden by Islam. In Indonesia, however, the term *halal* is generally used in terms of food, and in addition to meat, covers all other foodstuffs, as well as food ingredients and food contact materials.

The Australian meat industry is particularly familiar with halal certification, as the Indonesian Government requires that all beef exports to Indonesia have a halal certificate, along with a health certificate and come from halal slaughter establishments listed with the Indonesian Ministry of Agriculture.

There may be opportunities in this area. Indonesia's neighbours, Brunei and Malaysia are exploring similar business models, to develop capacity as significant exporters of halal products. They are using third countries such as Australia, as a source of raw material supply, which is then processed appropriately in their facilities.

Australia is fortunate to have a strong and commercially active Islamic community, and certification capability is readily available. Australian companies considering investment need to evaluate the return from offshore investment in halal capability, to determine the degree to which such offshore processing makes their products more competitive in Islamic markets.

FAST FOOD FRANCHISES

A number of the world's major fast food providers commenced operations in Indonesia in the 1980s and enjoyed buoyant trading conditions until the 1997/98 financial crisis. Krismon resulted in a significant rationalisation of the industry but major global chains such as McDonalds adroitly adapted their offerings with smaller size serves as well as basic 'crisis' products (e.g. egg and rice) to cater for the difficult times.

Western fast food is now a well-established feature of the Indonesian food scene with global brands such as McDonald's, KFC and Pizza Hut represented in all major centres, principally in modern shopping centres and malls.

Since the recovery in the Indonesian economy, there has been strong growth in secondary franchises, from a range of countries as well as local ventures.

A number of these franchises have come from Australia, including Dôme and Gloria Jean's, both of which cater to the coffee shop market. A global franchise such as

³⁷ Additional information on halal foods is available in the Subsistence to Supermarket III, pp 93-97.

Starbucks has made inroads, but caters to an upscale market, usually around the centre of the business and financial district, while the secondary franchises attract a larger clientele in shopping malls with prices typically 20% below the Starbucks product.

Other recent Australian franchises in Indonesia include Boost Juice and La Porchetta from Melbourne.

Regional franchises, notably from Singapore and Malaysia, have captured considerable market share. The high profile 'Bread Talk' franchise from Singapore, offering a range of bread-based snacks in an open kitchen format is a strong attraction in modern shopping malls.

The operators of many of the local franchises are the children of wealthy Indonesians. This market sector has gained a reputation as one of the faster ways to make cash and establish quickly in business. This has led to a significant oversupply of 'me too' outlets which lack a signature product, and with limited point of sale impact.

Indonesian industry observers suggest the fast food sector is now dangerously over-supplied, but concede there is always room for a snappy product that quickly gains market acceptance and fashion, such as 'Bread Talk.'

There is potential in the coffee shop sector, but any market entrant must deliver a strong product combined with an appealing value statement and image. Offering chicken on a bun is not enough. Products must be 'romanced' to meet youth market tastes and aspirations.

Australian companies in this sector need to undertake careful market research and avoid anecdotal claims of rich rewards. 'Bread Talk' has proven that a novel food 'experience' can quickly capture market share with good returns.

LOGISTICS

Supply chain management is a critical factor in the FMCG³⁸ sector and while Indonesia presents very considerable challenges to logistics management, several Australian companies are tackling them effectively with solutions geared to local requirements.

The challenges are:

- A country of about 17,000 islands – of which some 6,000 are permanently inhabited – with variable inter-island transport links
- Congested and inadequate road infrastructure – smaller truck sizes (8-12 tonnes) are the usual maximum for servicing retail outlets
- Inadequate rail system and infrastructure
- The traditional mind set that it is 'cheaper to do it yourself'

³⁸ FMCG are fast moving consumer goods.

- The inability of foreign companies to own and operate trucks as part of an integrated operation (albeit there are contract alternatives).

The entry of major hypermarket groups such as Makro, Giant and Carrefour has introduced contemporary supply chain management techniques to the market, with increasing pressures on FMCG suppliers to deliver volume quantities on time and to an agreed supply schedule – all at minimum (or no) cost to the buyer.

The Indonesian market for logistics services is in a state of change between the 'modern' and 'traditional' sectors. Change is increasingly being driven by the major 'modern sector' operators such as hypermarkets and supermarkets. Australia's Linfox and Davids have established operations in Jakarta, and operate in this environment.

The challenge for logistics companies is to develop a business model that satisfies the needs of suppliers and buyers and is profitable under the special conditions imposed by the Indonesian environment.

Indonesia has a complex and multi-layered 'traditional' distribution model that delivers product right to the corner store and street vendor.³⁹ The advent of hypermarkets has had a distorting effect as small vendors can purchase from a hypermarket at a lower price than through traditional distribution channels – and so can their own customers.

Many Indonesian manufacturers consider they can operate their existing trucking operations at a lower cost than a contract supplier, and it will take considerable time for many companies to move to new business models, albeit that buyers' stipulations, particularly on warehouse allowances and factory gate pricing, will force the pace of change.

The proposed expansion of toll road construction will have a major impact on the logistics industry. The January 2005 Infrastructure Summit in Jakarta created strong interest from international operators in an extensive portfolio of toll road projects.

Other issues that impact on the development of modern supply chain management in Indonesia include new regional taxes on the movement of freight as well as high freight costs for inter island container movements, notably refrigerated cargoes.

There are about 4 international players in the logistics market and Indonesia is attracting the attention of others. Several local companies (e.g. Wira Logistics, Tigararksa) also operate modern logistics services.

³⁹ The publication *'Food Exporters' Guide to Indonesia'* fully explains the FMCG distribution structures.

GROWTH PROSPECTS IN KEY INDONESIA AGRIFOOD INDUSTRIES

Discussions held in Indonesia across a wide range of food sectors produced the following estimates of market growth rates – based purely on anecdotal results.⁴⁰

TABLE 23: ESTIMATED MARKET GROWTH RATES IN INDONESIA

	LOW (0-5%P.A.)	MEDIUM (5-10%P.A.)	HIGH (10% + P.A.)
Poultry			<input checked="" type="checkbox"/>
Dairy including eggs			<input checked="" type="checkbox"/>
Instant noodles			<input checked="" type="checkbox"/>
Fruit & vegetables		<input checked="" type="checkbox"/>	
Baby food			<input checked="" type="checkbox"/>
Meat – beef, lamb & goat meat		<input checked="" type="checkbox"/>	
Candies & chocolate		<input checked="" type="checkbox"/>	
RTD beverages/water		<input checked="" type="checkbox"/>	
Food ingredients			<input checked="" type="checkbox"/>
Vegetable oils	<input checked="" type="checkbox"/>		
Coffee & tea		<input checked="" type="checkbox"/>	
Bread products			<input checked="" type="checkbox"/>
Biscuits		<input checked="" type="checkbox"/>	
Snack foods		<input checked="" type="checkbox"/>	
Convenience foods -(ready to serve) Low base		<input checked="" type="checkbox"/>	
Health and functional foods (low base)		<input checked="" type="checkbox"/>	

⁴⁰ Bayliss Associates interviews, December 2004.

FIGURE 21:

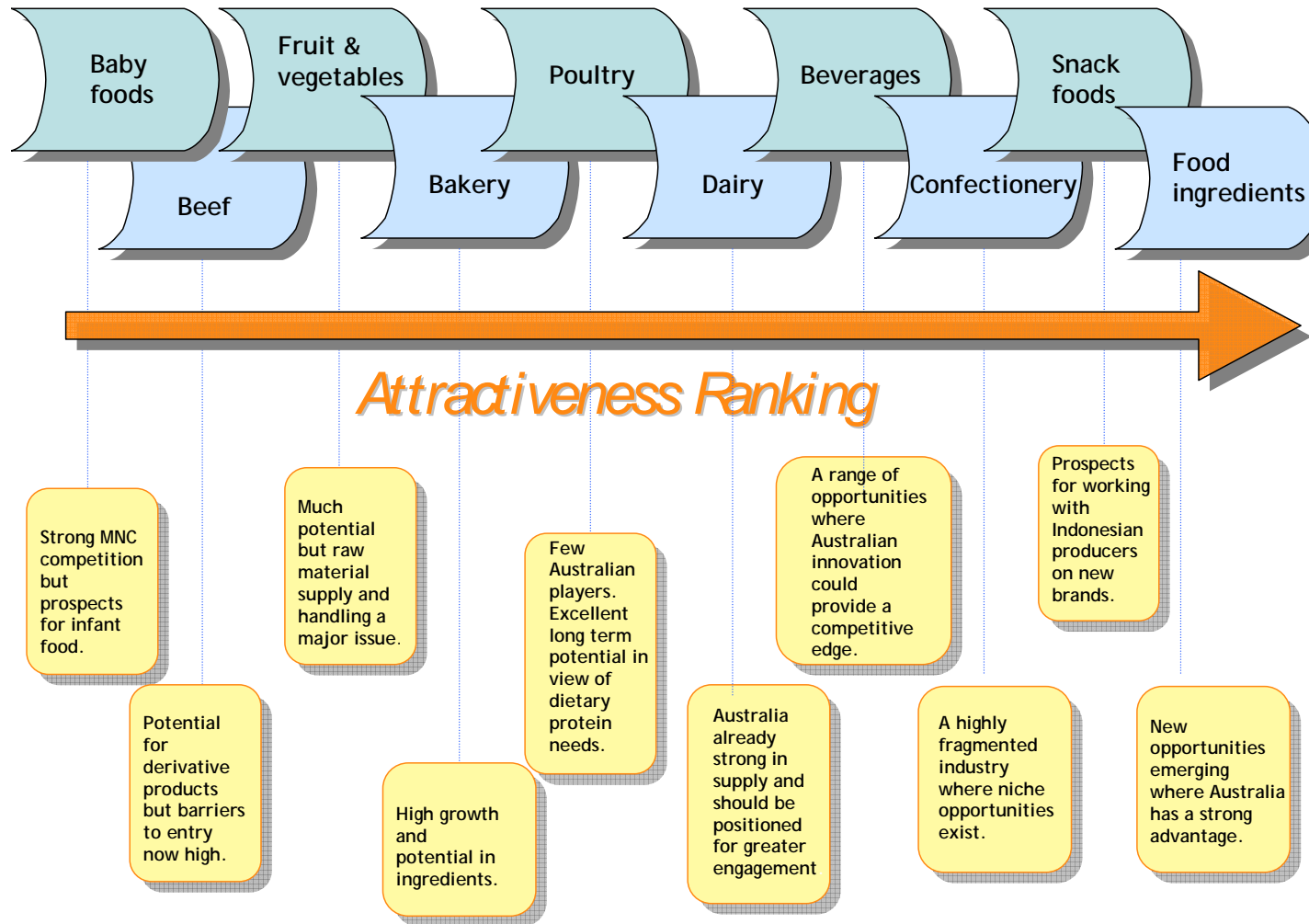


TABLE 24: **INDONESIAN FOOD INDUSTRY CHARACTERISTICS (SCALE 1=LOW 10=HIGH)**

INDUSTRY SECTOR	SCALE OF OPERATION	FOREIGN INVESTMENT	COMPETITIVE PRESSURES	AUSTRALIAN ADVANTAGE
Fruit + Vegetables	7	3	4	4
Dairy	3	7	6	6
Beverages	7	6	8	6
Poultry	7	7	7	2
Beef	3	6	5	8
Bakery	8	4	8	6
Confectionery	7	5	8	4
Snack foods	7	6	7	3
Baby foods	8	8	8	3
Food ingredients	4	5	6	7

TABLE 25: **INVESTMENT ATTRACTIVENESS MATRIX (SCALE 1=NOT ATTRACTIVE 10=ATTRACTIVE)**

INDUSTRY SECTOR	EASE OF ENTRY Weighting = 0.4	CAPITAL REQUIREMENT Weighting = 0.3	SALES POTENTIAL Weighting = 0.3	OVERALL ATTRACTIVENESS RANKING
Fruit + vegetables	3	5	5	4.2
Dairy	4	6	7	5.7
Beverages	4	6	7	5.7
Poultry	2	7	7	5.0
Beef	3	5	5	4.2
Bakery	6	4	6	5.4
Confectionery	7	4	6	5.8
Snack foods	7	4	7	6.1
Baby foods	2	2	7	3.5
Food ingredients	7	6	7	6.7