



AUDIT PLANNING MEMORNDUM FOR BSF LIMITED

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September 20, 2016

The Managing Board of Partners

ABC Firm, Chartered Accountants

Dear sirs,

BIO-SUSTAINABLE FEEDS (BSF) LIMITED

AUDIT PLANNING MEMORANDUM

We are engaged to audit the financial statements of BSF for the year ended June 30, 2016. The following memorandum is prepared keeping in view the business operations of BSF, the challenges it faces in the current economic environment where it operates and the resulting business risks and audit risks that may affect our successful conduct of audit.

These observations are preliminary and would be updated during the course of our audit as and when new information comes to attention that would have an impact on our client assessment.

Introduction and Background Information

BSF was incorporated in 1995 and is currently listed on the Australian Stock Exchange. The company is primarily engaged in carrying out extensive research for developing sustainable aquaculture feeds. The company has tested different plant-based, fish-based and bacteria-based methods for production of aquaculture feeds. The results of the first two types research failed to thrive so the company is now considering to invest heavily in the bacteria-based feeds which is likely to produce the expected yield.

The company is currently investing heavily in the research and development of patents which will allow it to reap the benefits from the sale of bacteria-based feed in the market after 2 years. The company has also received grants from the government for investing in research activities relating to alternative aquaculture feeds. Therefore, the company has also made commitments to

comply with the grant terms and conditions. BSF also has a history of accusations from the environmentalists in the past that they have been diverting human-quality food crops into growing luxury fish for the higher upper class of the society.

The audit for the company would be conducted in the light of the above key information which provides guidance in defining the key risk areas and the likelihood of the existence of risk that the financial statements may be materially misstated.

Client Acceptance Procedures

ISQC 1 requires that before accepting an audit engagement, appropriate procedures shall be conducted and conclusions drawn regarding the acceptance and continuance of client relationships (paragraph 26). Accordingly, steps that are needed to be considered before proceeding to provide consent to conducting audit for BSF are as follows:

1. Engagement partner and other relevant persons have considered the integrity of the management and other key management personnel of BSF and are satisfied that they are not involved in unethical or other activities that might raise questions about their integrity.
2. Considered whether the firm is competent to perform the engagement as per law, and has all the necessary resources including time, skills and human resources to perform the audit (Paragraph A8, ISA 220).
3. Whether the firm can comply with the relevant ethical requirements, including independence requirements, and there are no conflicts of interest with the management of BSF. Relevant ethical requirements for conducting an audit are provided by the International Ethics Standards Board for Accountants (IESBA) Code of Ethics for Chartered Accountants.

Preliminary Engagement Activities

Assessment of the Risk of Material Misstatement and the Overall Audit Risk

ISA 315 requires the auditor to perform risk assessment procedures to identify the risks which may cause financial statements to be materially misstated prior to the conduct of audit.

Performance of such risk assessment procedure enable the auditor to identify the key risk areas and focus the audit efforts to those areas thereby enhancing the audit efficiency and effectiveness (...). Such assessment also enables the auditor the design further auditor procedures such as Test of Controls and Substantive Procedures to execute the audit fieldwork.

Risk of Material Misstatement exists at two levels:

- Overall financial statement level, e.g., when the integrity of management is doubtful or when there is a risk of fraud as per ISA 240.
- Assertion level – when the individual line items of the financial statement might be material misstated auditor assesses these risks and it helps in determining the nature, timing and extent of planning further audit procedures (Paragraph A34-A36, ISA 315).

The risk of material misstatement has two components:

1. Inherent Risk (IR)

This is the component of risk that cannot be avoided. It is inherent in the nature of transactions and although it can be reduced to some extent through implementing effective internal controls, it cannot be entirely eliminated. Some examples where inherent risk is high are:

- In complex transactions and those that involve high level of subjectivity on the part of management such as making accounting estimates that have inherent significant estimated uncertainty, say an outcome of the litigation.
- Business risks may also give rise to inherent risk. Since BSF operates in the industry where technological developments are very frequent, it might make their particular product obsolete when new technology is introduced in the market, thereby having significant audit consideration.
- Operational risks, such as lack of working capital, deteriorated market reputation, declining goodwill and customer base, shortage of cash etc (Paragraph A38, ISA 200).

2. Control Risk (CR)

Control risk is in itself a function of three factors that are totally dependent on the management of the entity.

- Design of internal controls
- Implementation of internal controls
- Maintenance of internal control

These three factors when combined decide how well entity is prepared in meeting the risks that threaten the achievement of its operations and financial reporting objectives (Paragraph A39, ISA 200).

ISA 315 explains the 5 components of internal controls. These combinely have an effect on the control risk facing the entity. These include:

1. **Control Environment** – This includes among other things the implementation of the culture of honesty, fair dealing and ethical behavior within the organization by the management. A good control environment that is well entrenched within the entity provides a solid foundation for designing and implementing internal controls.
2. **Entity's Risk Assessment Process** – This includes how the management of the entity identifies those business risks that are relevant to their financial reporting objectives, the probability of their occurrence and deciding measures to deal with those risks in order to minimize, reduce or eliminate them to an acceptably low level.
3. **Entity's information system** – This includes business processes including those requiring initiation, recording, storing, processing and reporting financial transactions.
4. **Control Activities** – those that are relevant to the financial reporting objectives and hence considered necessary by the auditor.
5. **Monitoring of Controls** – How frequently risks and related controls are checked and monitored and whether an entity has an internal audit function (Paragraph 14-24, ISA 315).

Whereas, the third component of the overall risk in the financial statement is the Detection Risk, which is dependent on the auditor.

Detection Risk (DR)

ISA 200 defines the Detection Risk as, “The risk that the procedures performed by the auditor to reduce audit risk to an acceptably low level will not detect a misstatement that exists and that could be material, either individually or when aggregated with other misstatements.” (Paragraph 13(e), ISA 200, pp. 75)

Detection risk is therefore determined by the procedures selected by the auditor and their nature, timing and extent in the circumstances of the audit. Therefore, it is dependent on the following two factors.

- Effectiveness of the audit procedure in the given circumstances
- Application of the procedure by the auditor

It is important to note that Detection risk is inversely proportional to the Risk of Material Misstatement (RoMM i.e., the combined level of Inherent and Control Risk), which means that higher the RoMM, the lower DR needs to be and vice versa.

Application of the Audit Risk Model

Audit risk model can be applied to predict the audit risk in a client. It is just an estimate based on the expectation of the risk and helps the auditor in designing and performing further audit procedures and setting up the detailed audit plan. Audit risk model defines the overall audit risk as:

$$\text{Audit Risk} = \text{IR} \times \text{DR} \times \text{CR}$$

Components of audit risk for BSF are estimated as follows:

Inherent Risk = 90%

Control Risk = 5%

Detection Risk = 80%

Applying these estimates of risk to the audit risk model we can predict the overall audit risk of BSF as follows:

Calculations:

Audit Risk = 90% x 5% x 80%

Audit Risk = 3.6%

Conclusions: Control Risk of BSF is very low which may be due to strong control environment and stringent control activities surrounding the R&D industries. This has caused the overall audit risk to fall down to as low as 3.6%. The above range of audit risk is within 10-20% and therefore can be regarded as a “LOW” audit risk. Therefore, the audit firm should proceed with conducting the risk.

Developing Audit Programme and Detailed Audit Plan

1. Developing Overall Audit Strategy

Audit strategy is made in the very initial stages after accepting the audit. Developing Audit strategy is more broad and guides the development of detailed audit program at a later stage.

Audit strategy for BSF shall include the following:

- Defining the scope of the audit engagement and what is expected by the management of BSF.
- Ascertaining the reports required to be issued and other communications with the management of BSF that may be required.
- Considering significant factors that help in executing the audit and directing the efforts of the engagement team members
- Determining how the results of the client acceptance procedures and preliminary engagement activities can affect the conduct of the audit.
- Collecting and pooling the resources necessary for the conduct of audit.

2. Detailed Audit Plan

Detailed audit plan goes to a more extent in determining the risk assessment procedures, as well as the nature, timing and extent of planned further audit procedures. Following should be necessarily included in the audit program for BSF Limited.

RISK ASSESSMENT PROCEDURES	
Inquiries of management and the personnel with financial reporting responsibilities	<ul style="list-style-type: none">• Understanding of the system and control procedures relating to conduct of research activities.• Understanding of the business environment and the surrounding economic outlook of the aquaculture feeds and allied R&D.• Understanding of the system relating to capitalization of development costs.• Inquiries relating to the accounting and information system included IT related controls, including the possibility of their circumvention and management override.
Analytical Procedures	<ul style="list-style-type: none">• Comparison of the amounts of line items in the financial statements with those of the prior year.• Comparison of the amounts of line items in the financial statements with other companies within the same industry and with similar line of operations.• Conducting a detailed ratio analysis prior to the conduct of detailed audit fieldwork.

PLANNED FURTHER AUDIT PROCEDURES

<p>Details about the Government Grant</p>	<ul style="list-style-type: none"> • Are there any other conditions attached to the grant? • Will BSF be able to meet the requirements of the grant. • How it plans to meet these requirement including the incurrence of AUD 200 over the next two years.
<p>Further details about the research and development expenditure for the use of bacteria to produce fish feeds from wood chips, sugar cane residue, or recaptured methane gas.</p>	<ul style="list-style-type: none"> • Does the project have technical feasibility? If so, then obtain the reports and inspect it to identify the clauses that may impact. • How BSF intends to approach the market and the consider the likely impacts it has on the future financial statements. • Inspect the technical feasibility report of the previous research done by BSF that was unsuccessful and the claims made by BSF in the past in this respect. Assess what similarities may be there with the current research. • Consider the use of expert if necessary.
<p>Consider whether the internally generated asset of Patent might be impaired</p>	<ul style="list-style-type: none"> • Ask for any indications of impairment as per IAS 36. • Regardless of the indicators, compute whether the patent might be impaired by comparing it with the recoverable amount (lower of Fair Value less costs

	of disposal and Value in Use of patent) (IAS 38)
Consider the impact of accusations from environmentalists.	<ul style="list-style-type: none"> • Are there any ongoing litigation and claims against the company? • What impact does it have on its operations? • Are future litigation and claims expected from the company?

Research and Development Transaction

BSF Ltd. is carrying out research for the use of bacteria to produce fish feeds from wood chips, sugar cane residue, or recaptured methane gas. The main idea behind this research for BSF is twofold – bring down the cost of production of fish feeds, conservation of the low value fish and other essential crops that can be used for other activities. The research is important not only for the company but will have significant impact on the industry as a whole, because it will help in decreasing the utilization of aquaculture feeds that are plant-based and fish-based in order to produce better quality fish in large amount with high yield value. Therefore, it will enhance the sustainability of the overall process as the plants and fish that are saved from being used as aquaculture feed can be utilized in other edibles.

The accounting treatment of the research and development expense vary greatly depending on the stage of benefits from the resulting internally generated intangible assets that can be derived by BSF.

Accounting requirements relating to the recognition and measurement of internally generated intangible assets are dealt with in IAS 38. These requirements are particularly stringent because derivation of economic benefits from internally generated intangible assets such as brands, trademarks, customer bases, patents, secret design or formula is highly subjective and depend on the future outlook. In valuing such assets an entity makes some serious assumptions relating to the cash flows that can be derived from such assets as well as estimating the appropriate discount rate.

Likewise, an internally generated goodwill is never allowed to be recognized under IAS 38 as it fails to meet the definition of Asset as per Framework. It is not identifiable resource, and it may not be possible to fully control it (such as customer loyalty) and measure it accurately.

The accounting treatment of internally generated intangible assets other than goodwill differ based on the entity's ability to prove that future economic benefits are probable and will be obtained. It is briefly discussed hereunder:

- Research phase – always expensed as per paragraph 54 or IAS 38.
- Development phase – an asset may be capitalized and recognized based on entity's ability to prove future economic benefits are probable and if certain criteria defined in paragraph 57 of IAS 38 is well met.
- Production phase – Internally generated intangible asset must be amortized over its useful life.

As per IAS 36, an item of intangible asset that is internally generated is also required to be tested for impairment at least annually irrespective of whether there are indications for impairment.

These concerns should be addressed and checked that no cost of research should be capitalized and all research cost should be expensed as per paragraph 58 of IAS 38.

Considerations relating to the Fair Market Value (FMV) of the Patent

FMV should be naturalistic indicative of the economic benefits that are embodied within the patent and that are expected to be derived by the entity from its future use (that is its value in use) (Schwartz, 2013). If the fair value of the patent is miscalculated, it may be overvalued or undervalued (Russell, 2016). The calculation of the fair market value of the patent mainly depends upon the underlying assumptions taken by the entity for the calculation.

Data and calculations used to calculate FMV has been given below.

Expected market value per year for ten years: \$200 million

Discount rate: 8.0%

Time till production: 2 years

Calculation:

Step 1: Present Value of the cash flows using annuity factor for ten years

Formula: $PV = R (1 - (1+i)^{-n}/i)$

Calculation: $PV = 200 (1 - 1.08^{-10})/0.08$

$PV = \$1,342$ million

Step 2: Further discounting for 2 years as production starts after two years

Formula: $PV = FV (1+i)^{-2}$

$PV = 1,342 (1.08^{-2})$

$PV = \$1,150$ million

The above calculations are based on the assumption that the BSF continues to derive the 200 annual income from patent. Reasonableness of this assumption should be tested and verified by all means.

Also consider the likelihood of the similar research being conducted by any other company and the likely impact it has on the fair market value of the patent. From our early research it appears that a Norwegian firm called The Aquaculture Protein Centre (APC) is engaged in the similar research over the past ten years. This is much longer than the 3 years period research of BSF. They might have more valuable research and might be able to develop the patent earlier than BSF. In this case the cash flows from the use of BSF patent would be considerably reduced. (The Research Council of Norway, 2012).

Corporate Social Responsibility and the Auditor's Responsibility in Relation to Sustainability Reports

When expressing opinion on the financial statements of BSF, our firm would not be required to express opinion on any statement contained in the report containing financial statement other than those defined in the audit report. However, the firm might be required to express opinion on

BSF's corporate social responsibility as per local regulations. In this case there is a need to evaluate the steps that need to be taken and the procedures that are necessary to perform, including obtaining representations from the management and certifications of the those charged with governance relating to their responsibilities in this regard, in the light of ISA 720 - the auditor's responsibilities relating to other information in documents containing audited financial statements. Possible involvement of the work of expert also needs to be considered.

Assurance of Prospective Financial Information

The examination of prospective financial information is dealt with by International Standard On Assurance Engagements 3400. In this case, the auditor needs to consider and obtain evidence as regards the following:

- Best estimate assumptions of the management on the basis of which prospective financial information has been prepared.
- Whether the financial statements are reflective of these assumptions.
- Proper presentation of the prospective financial statement as per the required regulatory and local requirements
- Consistency in the preparation of prospective financial information using the accounting principles that are appropriate in the circumstances (Paragraph 2, ISAE 3400).

Conclusion

The audit planning memorandum discussed the major issues surrounding the BSF and their likely impact on the financial statements of the company. Special attention should be given to the R&D activities of the company and their accounting treatment as discussed in the detailed audit program, and the treatment of government grant to BSF. Please be advised that besides above there are also other items involving estimation and high subjectivity and that are inherent part of the financial reporting process. We hope the above guidance will help you in making informed decision regarding investment in Woolworths Limited.

Senior Accountant

Financial Accounting and Reporting

ABC Firm, Chartered Accountants

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