



Intangibles Disclosure Framework 2023

Developed by
the Association of Banks Singapore, Investment Management Association of Singapore, Institute of Singapore Chartered Accountants, Institute of Valuers and Appraisers, Singapore, Law Society (IP Practice Committee), Licensing Executives Society (Singapore), Singapore Institute of Directors and Singapore Venture and Private Capital Association.

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Executive Summary

Background

In April 2021, Singapore launched the Singapore Intellectual Property Strategy 2030 (“SIPS 2030”), a national roadmap that aims to strengthen Singapore’s position as a global Intangible Assets (“IA”) and Intellectual Property (“IP”) hub. SIPS 2030 will also support a future economy that is vibrant, innovative, and ready for new opportunities in intangible assets.¹

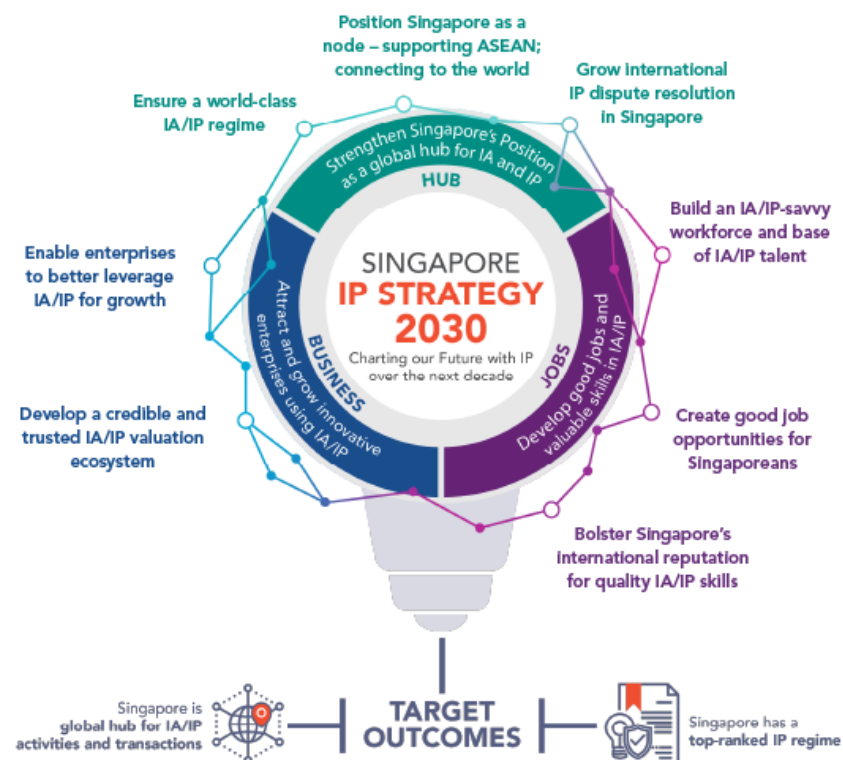
A long-term goal of SIPS 2030 is to build a credible and trusted intangible asset valuation and reporting ecosystem that supports enterprises in managing and commercialising their intangible assets. This, in turn, helps enterprises unlock benefits from their intangible assets, contributing to overall business strategy and value.

Globally, intangible asset valuation and reporting remains at a nascent stage. No jurisdiction has developed an intangibles-specific disclosure framework, much less an intangibles-specific valuation framework.

SIPS 2030 has sought to take initial steps through the development of an Intangibles Disclosure Framework (the “Framework”). The Framework outlines key principles for enterprises to identify and communicate details of their intangibles.

Consistent information, anchored in the Framework’s key principles, will allow stakeholders to make more informed assessments of the business and financial prospects, thereby facilitating the commercialisation of intangibles. In addition, harmonised disclosures can aid investors and lenders in comparisons across enterprises, thereby improving the flow of funds into enterprises that invest wisely in intangibles.

Exhibit 1: The Singapore IP Strategy 2030



¹ Government of Singapore and Intellectual Property Office of Singapore (2021). *Singapore IP Strategy 2030 Report*. Available at: <https://www.ipos.gov.sg/manage-ip/singapore-ip-strategy-2030>

The Framework

The Framework seeks to provide stakeholders with consistent information about an enterprise's intangibles, so that they can make more informed assessments of its business and financial prospects.

The Framework defines an intangible as “a non-monetary resource that manifests itself by its economic properties; it does not have physical substance but grants rights and/or economic benefits to its owner”. The intangible assets defined under the prescribed accounting standards in Singapore are a subset of intangibles defined under the Framework.

The Framework outlines the key principles that an enterprise should follow when disclosing their intangibles in a report. By striking a balance between flexibility and prescription, the Framework will increase the comparability of intangibles disclosures across companies.

The Framework is not intended to replace or supersede existing regulatory or accounting requirements. The Framework may require disclosure of intangibles beyond those recognised under financial reporting standards. Please refer to **Annexure 1** for the guiding principles.

An enterprise can opt to disclose their intangibles as part of an annual report or in a standalone report. The standalone report should ideally be issued together with financial statements.

The key principles of the Framework are anchored in four pillars: Strategy, Identification, Measurement, and Management (“SIMM”). It is important to address all four pillars, although the order in which they are addressed is secondary.

Exhibit 2: The SIMM Pillars



The Strategy Pillar

This Pillar supports the disclosure and communication of how intangibles are relevant to, and used in, an enterprise's overall corporate strategy. This Pillar aims to give stakeholders a better understanding of how an enterprise uses its intangibles to create returns for its investors, and what role intangibles may play in various aspects of business, potentially allowing the enterprise to gain or preserve a competitive advantage in the market.

The Identification Pillar

This Pillar includes the definition of an “intangible” and recommends how an enterprise should describe the nature and characteristics of their intangibles. Under this Pillar, it is proposed that intangibles be classified into six categories. The purpose of having definitions for each category of intangibles is to facilitate and improve their comparability.

The Measurement Pillar

This Pillar guides an enterprise on how it could disclose performance metrics and drivers of their intangibles. These information will enable both an enterprise and its stakeholders to better assess and understand the financial health and performance of an enterprise's intangibles. Value-related information to be disclosed should ideally be quantitative in nature and capable of assisting in the valuation of said intangibles, such as metrics and value drivers. While encouraged, the disclosure of the monetary value of an enterprise's intangibles is optional under this Pillar.

The Management Pillar

This Pillar provides guidance on how an enterprise may disclose the manner in which it identifies, assesses, and manages the risks and opportunities related to its intangibles. Under this Pillar, it is recommended that an enterprise discloses how its processes for the identification, assessment, and management of intangibles-related risks are integrated into its overall group risk management practices.

Rationale of the Framework

It is clear that (1) with digitalisation, value creation will be increasingly driven by intangibles; (2) transparency and standardisation of corporate reporting can propel the development of valuation methodologies for a digital economy; and (3) a robust disclosure and valuation framework can underpin a growth flywheel of value creation from intangibles. While these objectives are future-oriented, it is necessary to take initial steps towards them now.

1. The role of intangibles in the increasingly digital economy

The global economy is becoming increasingly driven by innovation and intangibles. Certain types of intangibles have been widely recognised to contribute to business value – for example, brands and human capital. Emerging technologies are increasingly becoming dominant business value drivers. For example, the maturity of blockchain technology and digital assets are creating new business opportunities for “Web 3.0” or “metaverse” business models.

Advancements in chip manufacturing, green technology, nanotechnology and biomedical technology are examples of rapid advancements in mature and well-understood fields. On the other hand, younger domains in technologies such as quantum computing hardware are also showcasing promising growth and business value.

Indeed, investments in intangible assets have overtaken those of tangible assets for over two decades.² Global payments for the use of IP have increased by 74% over the last decade to US\$515.26 billion,³ and now represents more than 9% of the global import of services.⁴ Additionally, the value of intangibles was estimated to hit an all-time high of US\$74 trillion in 2021, representing more than half (54%) of overall global value.⁵ These trends and statistics are expected to continue, and drive the need for a framework that allows for consistent identification, categorisation and disclosure of intangibles.

² C. Corrado and C. Hulten (2010). *How Do you Measure a ‘Technological Revolution’?* Available at: <https://www.jstor.org/stable/27804971>

³ World Bank (2022). “Charges for the use of intellectual property, payments (BoP, current US\$)”. Available at: <https://data.worldbank.org/indicator/BM.GSR.ROYL.CD>

2. Disclosure permits harmonisation and comparability

For disclosures to be comparable, they should measure and refer to intangibles on a like-for-like basis. Adopting the Framework will be an important step because no jurisdiction has managed thus far to develop a common language – comprising taxonomy and methodology in a single framework.

While equivalent concepts exist in accounting standards, they may prohibit an enterprise from recognising the entire breadth of its intangibles on its financial statements. For example, intangibles that are internally generated (and not acquired through acquisition) may not be recognised in financial statements. This in turn leads to an under-appreciation of intangibles by enterprises, stakeholders and the market as a whole.

By setting key disclosures principles, the Framework lays the foundation for harmonisation of intangibles disclosure by enterprises within similar sectors. Once comparable information can be gathered, new methods can be tested from the available disclosures and data to give rise to new ways of valuing intangibles.

3. The growth flywheel of value creation

Valuing intangibles, like tangibles, as a distinct asset class, opens up a new range of commercialisation options. For example, start-up enterprises with minimal cash flow, but a strong portfolio of intangibles, may be better positioned to raise capital or financing on the back of such intangibles. New financing techniques may become possible backed by the value and security of intangibles. Meanwhile, listed enterprises may be able to quantify the value contributed from intangibles to better differentiate from peers in the same segment.

Although developments are still underway, these options and opportunities cannot be captured if enterprises are not sensitive to the need to understand, measure and disclose the contribution of intangibles to their business value and growth. The Framework enables enterprises to better manage and generate value from their intangibles.

⁴ World Bank (2022). “Service imports (BoP, current US\$)”. Available at: <https://data.worldbank.org/indicator/BM.GSR.NFSV.CD>

⁵ Brand Finance (2021). *Global Intangible Finance Tracker 2021*. Available at: <https://brandirectory.com/download-report/brand-finance-GIFT-2021.pdf>

Implementation recommendations

The Framework will be rolled out on a voluntary basis. We recognise that an intangibles-specific disclosure framework is novel, and we look to provide time for enterprises and industries to familiarise themselves with intangibles disclosure. In the longer term, we envisage that intangibles disclosure will become mainstream reporting. It would be ideal to work towards the eventual harmonisation of intangibles disclosure with the broader corporate reporting ecosystem.

Intangibles disclosure will facilitate the management and commercialisation of intangibles. A consistent Framework allows businesses to understand, evaluate and more effectively communicate their intangibles, to achieve better commercial outcomes including business expansion, marketing and capital raising. Internally, recognition of an enterprise's intangibles enables senior management to build a more comprehensive corporate and business strategy around the intangibles. Additionally, consistent disclosure of intangibles can improve market transparency, thereby increasing market participants' confidence in commercial transactions involving intangibles.

To support the implementation of the Framework, the following section outlines a set of three strategies and seven recommendations for the public and private sectors to work on together in the coming years. These strategies and recommendations were formulated based on feedback received from the earlier public consultation. These strategies are mutually reinforcing and not exhaustive.

STRATEGY 1: Showcase practical applications of the Framework and the outcomes

From the public consultations, stakeholders indicated that the Framework was clear and easy to understand. Stakeholders also requested demonstrations of how the Framework's principles and guidelines translate into actual disclosures. Such demonstrations will serve as a benchmark for adopters and build up comparable disclosures under the Framework.

In addition, stakeholders highlighted the importance to clearly illustrate the practical benefits of adopting the Framework, for instance, how the

Framework enables enterprises to better manage their intangibles portfolios to drive business growth.

Recommendation 1.1: Identify and build “champions”

- i. Listed enterprises are visible and relatable to a wide pool of stakeholders, making them strong candidates to champion the Framework. Furthermore, listed enterprises seek to maintain strong communications with their stakeholders through regular reporting (e.g., annual reports), which makes intangibles disclosure a natural addition. **Therefore, listed or pre-listing innovative enterprises, as well as equity capital market players and SGX, have potential to lead as “champions” for the Framework.**
- ii. Stakeholders pointed out that the benefits of enhanced intangibles disclosure may be uneven across sectors and suggested a sector-specific approach to optimise impact of the Framework, particularly in the early stages of its adoption. **Economic agencies like the Economic Development Board (EDB) and EnterpriseSG can assist in identifying sectors to target, as well as in building and profiling “champions” within these sectors.**
- iii. **Case studies can be developed around “champions” to showcase the practical benefits of adoption.** A clear illustration of the benefits and value brought to enterprises in using the Framework will be key to driving voluntary adoption. Case studies can show how an enterprise uses the Framework as a tool that informs business decisions to derive positive outcomes and returns. As guided by the Framework, greater accountability around intangibles can improve corporate governance and risk management, including at the Board-level. In addition, intangibles disclosure can support investors in a more accurate evaluation of a potential investee company, and hence result in a more informed and successful capital raising exercise.

Recommendation 1.2: Create illustrative examples

- i. **With help from professional services firms, prototypes for these “champions” can be developed as illustrative examples to serve as guidance for other enterprises.** The completed illustrative examples will set the baseline for enterprises implementing the Framework and should be appended to the Framework as supplementary guidance. This is similar to how financial reporting standards are accompanied by illustrative examples.

STRATEGY 2: Complement use of the Framework with strong industry and government support

Stakeholders highlighted that the preparation of intangibles disclosure using the Framework will require additional resources. Enterprises will need to invest these additional resources, alongside industry and Government support, to realise the benefits of adoption.

Listed enterprises, banks, and venture and private capital firms were identified as key industry players to recognise and adopt the Framework. Stakeholders conveyed that one key purpose of disclosing intangibles information would be for public capital markets and private financing. It was also highlighted that the Government can play a role to support adoption.

Recommendation 2.1: Encourage adoption by listed enterprises

- i. The widening gap between market and book values of listed enterprises suggests a need for better information on intangibles. The use of the Framework by listed enterprises to explain at least part of this value gap can improve market transparency and decision-making, and hence facilitate acceptance and adoption of the Framework by public capital markets and their stakeholders. Furthermore, listed enterprises are well-placed, both in terms of resources and sophistication, to adopt the Framework. **We can work with equity capital market players, as well as SGX, to refer enterprises to the Framework.**

Recommendation 2.2: Collaborate with the financial services sector

- i. The longer-term value in adopting the Framework is likely to realise when disclosures enable greater access to financing opportunities. This is increasingly relevant as Singapore continues to grow as a financial hub, seen in its strengthening position as a tech startup and venture capital hub. While there are various considerations involved including regulatory standards and industry practices over credit and financial risk management, **the Framework can assist in structuring the presentation of intangibles information systematically.**
- ii. Stakeholders have also highlighted that there are Government-backed financing schemes that support innovative enterprises driven by intangibles. **The Framework can serve as a reference for participating financial institutions in their understanding and evaluation of intangibles as part of the overall business valuation.**

Recommendation 2.3: Elevate to Government platforms and processes

- i. Existing online platforms such as the A*STAR Collaborative Commerce Marketplace (ACCM) provide channels for enterprises to match their technological needs and offerings. Information on the intangibles behind the listed technologies are often relevant and can provide richer information to generate additional licensing and funding opportunities. **The Framework can serve as a useful reference for users of the platforms in communicating their technologies and associated intangibles in a more consistent manner.** Over time, the use of the Framework can support more consistent communication and disclosures of intangibles.
- ii. To enhance Singapore’s attractiveness as a location for enterprises to hold and commercialise IP rights, enterprises can claim writing-down allowances on capital expenditure incurred to acquire IP rights for use in their trade or business. To determine the amount of writing-down allowance for claims, enterprises may be required to submit third-party independent valuation reports on the value of the IP rights acquired. The Framework provides useful guidance on how

enterprises should explain the extent to which their intangibles will contribute to future profitability. Such information can supplement the valuation reports submitted by enterprises for tax purposes and facilitate IRAS' evaluation of the writing-down allowance claims. **To enhance the IP rights valuations furnished by enterprises for tax purposes, IRAS can refer enterprises and their tax agents to the Framework.**

STRATEGY 3: Build capabilities to use the Framework

Even as stakeholders become increasingly aware of the benefits of intangibles, the ecosystem may lack capabilities to apply the Framework. Stakeholders highlighted the need to concurrently educate and build capabilities amongst enterprises to support the Framework's implementation. This should be complemented with efforts in building up a pool of experienced professionals who can assist enterprises in intangibles disclosure.

Recommendation 3.1: Equip enterprises with necessary capabilities

- i. Intangibles disclosure should be integrated into management reporting at the Board level, followed by public reporting. This will promote better tracking of intangibles-driven performance and build a strategic drive towards commercialising intangibles across the organisation. **ACRA and IPOS can work with industry associations such as the Singapore Institute of Directors (SID) to promote better awareness among business leaders on the benefits of applying the Framework.**
- ii. Concurrently, **internal enterprise capabilities need to be built to support the use and application of the Framework. To do so, joint efforts by public and private sectors will be required.** For example, training programmes can help equip business leaders and relevant reporting teams with the relevant capabilities in intangibles data collection, preparation and disclosure.

Recommendation 3.2: Upskill professional services firms

- i. Professional services firms add value to the disclosure process with their expertise and independence. Many enterprises, especially those that are listed and held to high standards of corporate reporting, will require the help of professional services firms to prepare reliable and comparable intangibles disclosures. **Professional services firms should continue to build capabilities in the area of intangibles to ensure there are sufficient professional services firms capable of assisting enterprises in the implementation of the Framework.**

CONCLUSION

Moving intangibles disclosure mainstream to provide the ecosystem with better information on intangibles widely will be a multi-year journey. Materialising the benefits of enhanced intangibles disclosure will also require the collective efforts and cooperation of both the public and private sectors.

We are pleased to have taken the first step to develop and release the Framework. This will lay a good foundation, supporting Singapore's journey towards building a credible and trusted intangible asset valuation and reporting ecosystem that supports enterprises in managing and commercialising their intangible assets. In addition, the implementation strategies and recommendations will set the stage for longer term adoption of intangibles disclosure.

The Intangibles Disclosure Framework: the SIMM Pillars

The key disclosure principles in the Framework are anchored in four pillars: Strategy, Identification, Measurement, and Management (“SIMM”). This chapter elaborates what each of the SIMM Pillars entail and provides guidance to an enterprise on how it should disclose its intangibles. **Exhibit 3** provides a summary of the Framework.

Exhibit 3: The Framework and SIMM Pillars

<p>Purpose</p>	<p>To provide stakeholders with consistent information about an enterprise’s intangibles, so that more informed assessments of their business and financial market prospects can be made.</p>		
<p>Strategy</p> <p>Disclose how intangibles contribute to business, strategy, and financial planning where such information is material.</p>	<p>Identification</p> <p>Disclose the nature and characteristics of the intangibles that fit into the definition provided, and categorise them.</p>	<p>Measurement</p> <p>Disclose the performance metrics and drivers used to assess an enterprise’s intangibles where such information is material.</p>	<p>Management</p> <p>Disclose how an enterprise identifies, assesses, and manages the risks and opportunities of its intangibles.</p>
<p>Recommended Disclosures</p> <ol style="list-style-type: none"> 1. Intangibles and their relationship to business activities and value creation 2. Intangibles and value creation from past-to-present 3. Intangibles and value creation from present-to-future 4. Intangibles and their role(s) in attaining a competitive advantage for the enterprise 	<p>Recommended Disclosures</p> <ol style="list-style-type: none"> 1. Description of the nature and characteristics of an intangible 2. Categorisation of intangibles 	<p>Recommended Disclosures</p> <ol style="list-style-type: none"> 1. Quantitative or valuation relevant metrics/drivers to assess the performance of intangibles 2. (Optional) Monetary value of intangibles 	<p>Recommended Disclosures</p> <ol style="list-style-type: none"> 1. Processes for identifying and assessing intangibles-related risks and opportunities 2. Processes for managing intangibles-related risks and opportunities 3. Integration between identifying, assessing, and managing intangibles-related risks and an enterprise’s overall risk management strategy

The Strategy Pillar

This Pillar supports the disclosure and communication of how intangibles are relevant to, and used in, an enterprise's overall corporate strategy. This Pillar aims to give stakeholders a better understanding of how an enterprise uses its intangibles to create returns for its investors, and what role intangibles may play in various aspects of business, potentially allowing the enterprise to gain or preserve a competitive advantage in the market.

1. Intangibles and its relation to corporate strategy and value creation

An enterprise should first disclose its corporate strategy and business model, particularly in the activities the enterprise partakes in, what its value proposition is, and the main products/services it offers to the markets. Next, the enterprise should explain how it uses intangibles to deliver its corporate strategy. These disclosures will help stakeholders understand how intangibles are integrated into an enterprise's business model.

2. Intangibles and value creation from past-to-present

An enterprise should disclose areas of focus, investments made, including past track records and successes in, research and development, creation, protection, registration, commercialisation or exploitation of intangibles. The enterprise should also identify the critical factors that contributed to its strategy and success. The analysis should help the enterprise take stock of its intangibles, understand the potential areas of growth and decline, and lay the foundation for creating new or additional value from intangibles.

3. Intangibles and value creation from present-to-future

An enterprise should disclose the progress made towards achieving its long-term business objectives through intangibles, while identifying trends and factors relevant to the assessment of current and prospective performance of its existing intangibles. This includes explaining the resources available to help attain an enterprise's objectives and how they are managed for value creation of its intangibles, describing principal risks and uncertainties that may impact the long-term value or prospects of its intangibles. This should

include sharing the short to long term strategy it plans to adopt for navigating the business environment whilst expounding on the role its intangibles will play in supporting this strategy. These disclosures should be supplemented by appropriate caveats to reflect the information that was available for making them and the degree of reliance that should be placed on them.

4. Intangibles and its role in attaining a competitive advantage

Where relevant, the enterprise should disclose the role intangibles have played to help gain or preserve competitive advantage in its market. The Framework recommends making disclosures based on either (i) both Porter's generic competitive strategies and the Value, Rarity, Imitability, and Organisation (VRIO) framework, or (ii) any other widely accepted framework that can demonstrate how the use of an intangible has created a competitive advantage, and whether this competitive advantage is sustainable in the long run.

Porter's generic competitive strategies contains three strategies that a firm can adopt to secure long-term competitive advantage: cost leadership, differentiation, and focus (which can be broken down into cost focus and differentiation focus). Please refer to **Annexure 2** for more details.⁶

The VRIO framework is a strategic planning tool designed to help an enterprise uncover and protect the resources and capabilities that give them long-term competitive advantage. VRIO is an acronym for a four-question framework that can be used to evaluate the usefulness of an enterprise's resources. Please refer to **Annexure 3** for more details.⁷

The enterprise should also disclose whether the intangibles providing competitive advantages, be it revenue-generating or cost saving, are sustainable in the long-run.

⁶ M. Porter (1985). *The Competitive Advantage: Creating and Sustaining Superior Performance*. Available at: <https://www.hbs.edu/faculty/Pages/item.aspx?num=193>

⁷ ClearPoint Strategy (2022). "Explaining The VRIO Framework". Available at: <https://www.clearpointstrategy.com/vrio-framework/>

Exhibit 4: Porter's Competitive Strategy Framework⁸

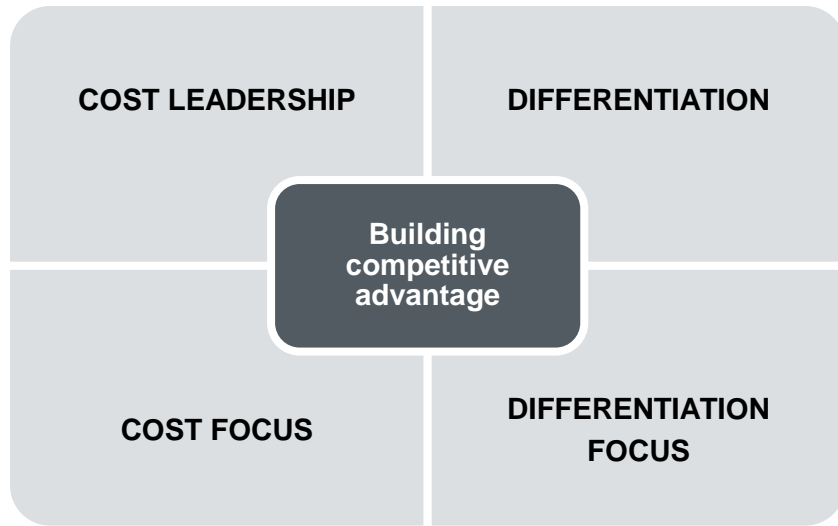
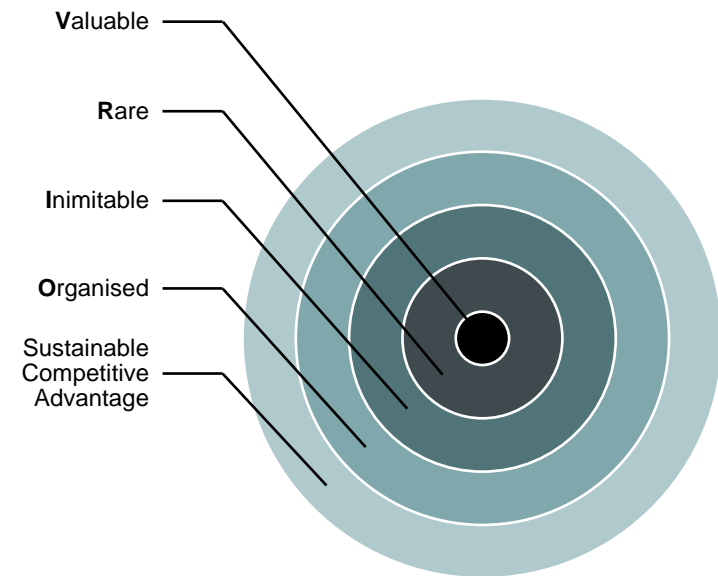


Exhibit 5: VRIO Model⁹



⁸ M. Porter (1985). *The Competitive Advantage: Creating and Sustaining Superior Performance*. Available at: <https://www.hbs.edu/faculty/Pages/item.aspx?num=193>

⁹ J. Barney (2005). *Strategic Management and Competitive Advantage*. Available at: https://books.google.com.sg/books/about/Strategic_Management_and_Competitive_Adv.html?id=LxdoQgAACAAJ&redir_esc=y

The Identification Pillar

This Pillar includes the definition of an “intangible” and recommends how an enterprise should describe the nature and characteristics of their intangibles. Under this Pillar, it is proposed that intangibles be classified into six categories. The purpose of having definitions for each category of intangibles is to facilitate and improve their comparability.

1. Describing the nature and characteristics of intangibles

The Framework draws reference to the International Valuation Standards Council’s (IVSC) definition of intangible assets in the IVS 210,¹⁰ and defines an intangible as “*a non-monetary resource that manifests itself by its economic properties; it does not have physical substance but grants rights and/or economic benefits to its owner*”.

The Framework applies to all intangibles that meet the above definition, including those that are internally generated. For the avoidance of doubt, intangibles are not required to meet the recognition criteria in accounting standards for them to be included in an enterprise’s intangibles disclosure report. An enterprise should also disclose the nature and characteristics of their intangibles, such as a brief description of each intangible and how it was acquired or attained.

2. Categorising of intangibles

The Framework advises for intangibles to be categorised into six categories: Marketing-related, Customer-related, Artistic-related, Contract-related, Technology-related, and Human Capital-related.

Marketing-related intangibles

These are intangibles used primarily in the marketing or promotion of products and services. Examples include: -

- i.) Trade marks, trade names, service marks, collective marks, and certification marks
- ii.) Trade dress (unique colour, shape, pattern or package design)
- iii.) Newspaper mastheads

- iv.) Internet domain names
- v.) Non-competition agreements

Customer-related intangibles

These are intangibles that refer to pre-existing relationships between an enterprise and its customers. Examples include: -

- i.) Customer lists
- ii.) Order or production backlog
- iii.) Customer contracts and related customer relationships
- iv.) Non-contractual customer relationships

Artistic-related intangibles

These are intangibles that grant an enterprise the ownership over or the right to use certain creative content. Examples include: -

- i.) Scripts for stage plays, dance choreography and other dramatic works
- ii.) Books, magazines, newspapers and other literary works
- iii.) Musical works such as compositions, operas, song lyrics and advertising jingles
- iv.) Drawings, paintings and photographs
- v.) Video and audiovisual material, including motion pictures or films, music videos and television programmes

Contract-related intangibles

These are intangibles that provide value to an enterprise through the means of a contractual agreement. Examples include: -

- i.) Licensing, royalty, and standstill agreements
- ii.) Advertising, construction, management, service, or supply contracts
- iii.) Construction permits
- iv.) Franchise agreements
- v.) Operating and broadcast rights
- vi.) Servicing contracts, such as mortgage servicing contracts
- vii.) Employment contracts

¹⁰ International Valuation Standards Council (2022). *IVS 210: Intangible Assets*. Available at: <https://www.ivsc.org/wp-content/uploads/2021/10/IVS210IntangibleAssets.pdf>

- viii.) Use rights, such as drilling, water, air, timber cutting and route authorities

Technology-related intangibles

These are intangibles that are technology-related. Examples include: -

- i.) Patented technology
- ii.) Unpatented proprietary technology
- iii.) Computer software and mask works
- iv.) Databases, including title plants
- v.) Trade secrets, such as secret formulas, processes, and recipes

Human Capital-related intangibles

Human capital has been added as a category of intangibles due to an emphasis by both enterprises and investors. Increasingly, human capital is seen as an asset to invest in rather than an expense to be managed.

Drawing reference from the IVSC's definition of Human Capital,¹¹ these are collective knowledge, skills, and experience that resides within and amongst an enterprise's workforce. Examples include: -

- i.) Scientists' capabilities to produce an invention
- ii.) Management's key leadership competencies
- iii.) Software engineers' skills in developing a computer program

Human Capital-related intangibles may overlap and share nexus with other categories of intangibles. This can be expected as Human Capital can be considered the foundation for other intangibles. However, Human Capital-related intangibles should, for the purpose of the Framework, be analysed from an input-output perspective to distinguish it from other intangible categories.

Human Capital-related intangibles are essentially the inputs (knowledge, skills, experience, capabilities or a combination thereof) of a person or workforce, which contribute to the outputs (whether tangible or intangible) that generate economic value.

For example, when a scientist develops an invention and a patent is obtained, the knowledge and capabilities of the scientist are the inputs, whilst the

invention developed, and patent are the outputs. The same concept can be applied to an artist's expertise (inputs), and the paintings they produce (outputs). Likewise, an enterprise's management and key leadership competencies can be seen as the input that mobilises the enterprise towards its strategy of maximising value creation into results (output) that create value for stakeholders.

An enterprise should only include within the Human Capital-related intangibles category inputs of a person or workforce, and separate their corresponding outputs into other categories to ensure its intangibles are not double-counted.

¹¹ International Valuation Standards Council (2022). *Perspectives Paper, Time to get Tangible about Intangible Assets, Part 2: Human Capital Introspective*. Available at: <https://www.ivsc.org/pdfviewer/perspectives-paper-human-capital/>

The Measurement Pillar

This Pillar guides an enterprise on how it should disclose performance metrics and drivers of their intangibles. These information will enable both an enterprise and its stakeholders to better assess and understand the financial health and performance of an enterprise's intangibles. Value-related information to be disclosed should ideally be quantitative in nature and capable of assisting in the valuation of said intangibles, such as metrics and value drivers. While encouraged, the disclosure of the monetary value of an enterprise's intangibles is optional under this Pillar.

1. The disclosure of quantitative or valuation relevant metrics/drivers to assess the performance of intangibles

An enterprise should disclose the Key Performance Indicators (KPIs) used to assess and analyse the financial health and performance of their intangibles. A KPI measures the success or progress towards a specified goal.¹² The KPIs or metrics provided should ideally be accompanied by historical data to allow for trend analyses. The methodologies used to calculate and estimate the disclosed metrics, especially when not immediately apparent, should also be disclosed.

Table 1 below provides guidance on the recommended metrics an enterprise may disclose for each category of intangibles.

2. The optional disclosure of the monetary value of intangibles

The Framework recommends that the disclosure of the monetary value of an enterprise's intangibles be made optional. This is because there may be other considerations involved in deciding whether to obtain and disclose the valuation of intangibles.

If an enterprise chooses to disclose the monetary value of its intangibles, the valuations should be conducted in accordance with the International Valuation Standards (IVS). The enterprise should include a reconciliation between the intangible assets recorded in their financial statements and the intangibles disclosed based on the Framework, and state whether the

disclosed monetary value of its intangibles was audited or reviewed. The following information should also be disclosed:

- i.) The purpose of the valuation and the intended users
- ii.) The definition of value
- iii.) The date of valuation
- iv.) The intangible being valued
- v.) The valuation approach(es) and method(s)
- vi.) The material valuation assumptions and inputs
- vii.) A narrative/description of the valuation sensitivities to changes in unobservable inputs¹³
- viii.) Valuation conclusion
- ix.) Credentials of the valuer

When a valuation which an enterprise discloses was not done in accordance with the IVS, the enterprise should inform stakeholders and explain their reasons in doing so.

¹² Chartered Global Management Accountant (2013). "KPIs – financial and non-financial". Available at: <https://www.cgma.org/resources/tools/essential-tools/kpis.html>

¹³ Unobservable inputs are inputs for which there is no market data available

Table 1: Examples of Value-Relevant Metrics

Categories of intangibles	Examples of Intangibles and their KPI	KPI Formula
Marketing-related	Brand / Trade marks / Trade names / Service Marks <ul style="list-style-type: none"> Customer satisfaction rating Corporate reputation / External Corporate image 	<ul style="list-style-type: none"> Independent customer satisfaction or brand rankings such as J.D Power, Brand Finance, etc.
Customer-related	Customer List <ul style="list-style-type: none"> Turnover generated from existing customers for pre-sale campaign 	<ul style="list-style-type: none"> Sales generated during pre-sale campaign
Artistic-related	Books, Magazines, Newspapers, and other literary works <ul style="list-style-type: none"> Investment requirement to commercialise or otherwise exploit the copyright 	<ul style="list-style-type: none"> Investment costs directly attributable to the specific copyright
Contract-related	Franchise and License Agreements <ul style="list-style-type: none"> Franchising and licensing terms (Pricing, Contract life, Renewals) Service level agreements 	<ul style="list-style-type: none"> Number and different types of franchising and licensing agreements maintained by an entity Amount of agreements expiring without renewal dates / Percentage of contracts expiring without renewal
Technology-related	Patented Technology <ul style="list-style-type: none"> Investment costs in R&D 	<ul style="list-style-type: none"> Ratio between total R&D and total project costs
Human Capital-related	Trained and Assembled Workforce <ul style="list-style-type: none"> Average age of employees Degree of employee satisfaction Attraction, recruitment, and turnover 	<ul style="list-style-type: none"> Employee turnover, Management turnover, Percentage of revenues invested in training and development of employees

Please refer to **Annexure 4** for more illustrations on the above.

The Management Pillar

This last Pillar provides guidance on how an enterprise may disclose how it identifies, assesses, and manages the risks and opportunities related to its various intangibles, and how these processes are integrated into its overall group risk management practices. It is crucial for the enterprise to manage its intangibles' risks to maintain its competitive advantage. Such disclosures will provide stakeholders with a better understanding of an enterprise's overall risk and opportunity profile.

1. Disclosure of the processes for identifying and assessing intangibles-related risks and opportunities

An enterprise should describe the processes it has in place for identifying and assessing the risk magnitude, risk scope and risk-impact duration of its intangibles, together with those for identifying and assessing the costs and benefits when pursuing intangibles-related opportunities.

Where applicable and material, the processes to analyse how the existing and emerging regulatory requirements may impact the value creation of their intangibles should be disclosed as well.

An enterprise should consider disclosing the definitions of risk terminology used.

These disclosures will help stakeholders understand an enterprise's ability to recognise and monitor intangibles-related risks and opportunities arising from its business environment.

2. Disclosure of the processes in managing intangibles-related risks and opportunities

An enterprise should describe the processes it has in place for managing identified intangibles-related risks, including how it makes decisions to mitigate, transfer, accept, or control the risks related to its intangibles.

An enterprise should provide descriptions of methods employed for prioritising risks associated with intangibles. This description should encompass the tools utilised for ascertaining risk prioritisation, which may include the risk probability and impact matrix, Pareto chart, and Fault tree

analysis. Additionally, the enterprise should provide any other relevant information on how materiality is assessed.

An enterprise should outline the procedures they have established to ensure consistent implementation of risk responses. This could entail defining its minimum requirements for deploying risk responses and issuing guidelines that are customised to the enterprise's specific business activities.

An enterprise should elaborate on the evaluation of effectiveness of its responses in managing intangibles-related risks. For example, how a low occurrence of IP infringements could indicate a high-level of effectiveness in managing intangibles-related risks.

Lastly, an enterprise should describe the processes it has in place for capturing intangibles-related opportunities, such as internal discussions on intangibles acquisitions and intangibles development plans.

These disclosures will help stakeholders evaluate an enterprise's prospects of keeping ahead of intangibles-related risks and opportunities to achieve its strategic goals.

3. Disclosure of the integration between identifying, assessing, and managing intangibles-related risks and an enterprise's overall risk management strategy

An enterprise should describe how the processes in place for identifying, assessing, and managing intangibles-related risks are integrated into its overall risk management strategy.

An enterprise should provide clarity on how regularly it monitors and reviews its intangibles-related risk management processes. This is to ensure that they remain effective and aligned with its overall risk management strategy. This could involve holding systematic risk assessments, updating policies and procedures when needed, or engaging with stakeholders to garner feedback and insights on the effectiveness of its risk management strategy.

These disclosures will help stakeholders understand how an enterprise aligns and prioritises the management of its intangibles-related issues within its overall risk management strategy.

Annexure 1: Guiding Principles for the Disclosure of Intangibles¹⁴

The Framework provides an enterprise the freedom to choose their preferred reporting format when it comes to disclosing their intangibles to both internal and external stakeholders, and this is likely to lead to variations in layout and content. However, there are normative guiding principles that should be adopted in order to improve communication of an enterprise's intangibles value creation mechanism.

The guiding principles presented in the section are interconnected and interdependent. Nevertheless, consistent application of these principles is key to meaningful articulation of the value-creation potential of intangibles.

The guiding principles for existing corporate reporting frameworks are already well established. Hence, instead of attempting to develop distinct intangibles reporting principles from scratch, the Framework identifies principles most relevant to the disclosure of intangibles.

From an intangibles reporting perspective, the principles of materiality, connectivity, conciseness, comparability and future orientation have been considered to be the most important; an interpretation of each principle is provided below.

Principle 1: Materiality

An enterprise should prioritise disclosing the details of intangibles that matter most in its ability to create value over time. Intangibles can be easily overlooked due to their non-physical nature. Therefore, an enterprise needs to carefully select and focus on reporting the intangibles that are deemed to be material and are key in their abilities to generate value.

Principle 2: Connectivity

Intangibles are factors that can influence an enterprise's financial and non-financial performance. Therefore, an enterprise should attempt to create strong linkages between their overall strategy, business model, and financial performance in its intangibles disclosure. By providing a narrative and

quantitative description of the interactions of intangibles with the rest of the enterprise, stakeholders will be able to make more informed assessments about the ability of an enterprise to sustainably create value over time.

Principle 3: Conciseness

Most of the intangibles that contribute to an enterprise's ability to create value over time are unique and nuanced. Thus, the disclosure of every intangible owned by an enterprise could potentially lead to lengthy reports. Therefore, it is preferable that an enterprise only reports the essential points in a manner that is simple and understandable for the most effective communication with stakeholders.

Principle 4: Comparability

The disclosure of intangibles by an enterprise and how it enables them to create value should ideally be comparable with that of other enterprises. The reporting of metrics and drivers related to intangibles can be comparable only if other entities report on the same or similar metrics and drivers. In addition, disclosures of intangibles should be consistent over time to enable stakeholders to understand the developments in value-creation potential of an enterprise's intangibles.

Principle 5: Future Orientation

An enterprise should articulate how the selected information and figures on intangibles disclosed contribute to its ability to create value in the future. Key elements to be reported are the metrics and drivers that allow stakeholders to predict the enterprise's capacity to create value in the future through the use of its intangibles.

¹⁴ World Intellectual Capital Initiative (2016). *Intangibles Reporting Framework*. Available at: https://www.wici-global.com/wirf/WICI_Intangibles_Reporting_Framework_v1.0.pdf

Annexure 2: Porter's Generic Competitive Strategy Framework

An enterprise should refer to **Porter's generic competitive strategy framework** when evaluating how the use of intangibles have helped them to build competitive advantages.

According to Porter's generic competitive strategy

- **Low cost or differentiation** are two basic types of competitive advantage a firm can possess.
- Three generic strategies for achieving above-average performance in an industry: Cost leadership, differentiation, and focus. The focus strategy has two variants, cost focus and differentiation focus.

	Lower Cost	Differentiation
Broad Target	<p>Cost leadership</p> <ul style="list-style-type: none"> • In cost leadership, a firm sets out to become the low-cost producer in its industry. In return, it either helps the business (i) to generate a higher profit margin at a given price, or (ii) to gain an increase in market share. (For business to employ such a strategy, it must be able to achieve and maintain a lower cost structure than its competitors). • Sources of cost advantage could be economies of scale, proprietary technology, preferential access to raw materials 	<p>Differentiation</p> <ul style="list-style-type: none"> • In a differentiation strategy, a firm seeks to be unique in its industry along some dimensions buyers widely value. • Through this strategy, firms select one or more attributes that many buyers in an industry perceive as important and uniquely position themselves to meet those needs.
Narrow Target	<p>Cost Focus</p> <ul style="list-style-type: none"> • In cost focus, a firm seeks a cost advantage in its target segment. Target segments must either have buyers with unique needs, or the production and delivery system that best serves the target segment must differ from that of other industry segments. 	<p>Differentiation Focus</p> <ul style="list-style-type: none"> • In differentiation focus, a firm seeks differentiation in its target segment.

Source: University of Cambridge (2022). "Porter's Generic Competitive Strategies (ways of competing)". Available at: <https://www.ifm.eng.cam.ac.uk/research/dstools/porters-generic-competitive-strategies/>

Annexure 3: VRIO Model

An enterprise should take reference from the **VRIO Model** when analysing their intangibles. In addition, the model helps to identify intangibles that have provided **sustainable competitive advantages** in their business activities.

- **Valuable:** Resources are valuable when they enable a firm **to conceive of or implement strategies** that **improve its efficiency and effectiveness**.

An enterprise should discuss how intangibles have aided them in the formation and/or execution of strategies that enhanced business efficiency and effectiveness.

- **Rare:** If a firm's valuable resources **are unique among a set of competing and potentially competing firms**, those resources will generate at least a **competitive advantage** and may have the potential of generating a **sustained competitive advantage**.

An enterprise should discuss the rarity of their intangibles in their respective industries. An area of discussion could be providing an understanding of whether other competing firms also hold the same intangibles.

- **Inimitable:** Valuable and rare organisational resources can only be sources of sustained competitive advantage **if firms that do not possess these resources cannot obtain them**. Imitation can occur in at least two ways: **duplication** and **substitution**.

Duplication occurs when an imitating firm builds the same kinds of resources as the firm it is imitating. In addition, firms may be able to substitute some resources for others. If these substitute resources have the same strategic implications and are not more costly to develop, imitation through substitution will lead to competitive parity in the long run.

An enterprise should discuss whether their intangibles are imitable through duplication or substitution. Areas of discussion could be (i) the history of the company – as firms evolve, they develop skills, abilities, and resources that are unique to them. As a result, intangibles could be developed using only company-specific information and resources (ii) the numerous small decisions – more often than not, a firm's competitive advantage seems to depend on multiples "small decisions" through which a firm's resources, such as intangibles and capabilities, are developed and exploited.

- **Organised:** A firm's competitive advantage potential depends on the value, rareness, and inimitability of its resources and capabilities. However, to fully realise this potential, a firm should be organised to exploit its resources and capabilities.

An enterprise should discuss how its formal reporting structure, management control systems etc. have helped them to exploit intangibles.

Annexure 4: Recommended Disclosure of Value-Relevant Metrics

Categories of Intangibles	Examples of Intangibles and their KPI	KPI Formula
Marketing-related	Brand / Trade marks / Trade names / Service Marks <ul style="list-style-type: none"> Customer satisfaction degree Corporate reputation / External corporate image 	<ul style="list-style-type: none"> Independent customer satisfaction rankings such as J.D. Power, Brand Finance, etc. can be used External corporate image index Ranking in survey results
	<ul style="list-style-type: none"> Active trade marks registered 	<ul style="list-style-type: none"> Number of active registered trade marks Number of products in the pipeline covered by registered trade marks Intellectual property owned and its citation index
	<ul style="list-style-type: none"> Brand licensing program 	<ul style="list-style-type: none"> Degree of favourable terms in the licensing agreement Degree of enforceability of the licensing agreement Revenue derived from the licensing agreement Useful economic life of the licensing agreement History of renewals
	<ul style="list-style-type: none"> Brand strength (Brand image, reputation, loyalty) 	<ul style="list-style-type: none"> Calculate brand strength using a balanced scorecard with relevant attributes such as emotional connection, financial performance, and sustainability Media coverage (both positive and negative) Website, search engine and/or social media statistics (e.g., following, impressions, engagements)
	<ul style="list-style-type: none"> Brand investment over time 	<ul style="list-style-type: none"> Sales and advertising costs Number of customers Units sold or customers serviced Revenue from exploiting brands Internal and external branding, sales and marketing costs (e.g., staff and external agencies)
	<ul style="list-style-type: none"> Brand contribution to EBITDA (extra margin) 	<ul style="list-style-type: none"> Additional EBITDA attributable to brand
	<ul style="list-style-type: none"> Market share per product/service line 	<ul style="list-style-type: none"> Percentage of sales invested in marketing and external communication

-
- Inclusion in Socially Responsible Index (SRI) funds at the end of year or during the year
 - Number of citations / inclusions
 - Member status in SRI-related categories
-
- Lack of negative publicity
 - Number of product recalls
-
- Longevity
 - Age since established (absolute age); Comparative age in relation to competing trade marks (relative age)

Categories of Intangibles	Examples of Intangibles and their KPI	KPI Formula
Customer-related	Customer List <ul style="list-style-type: none"> • Turnover generated from existing customers called for pre-sale campaign 	<ul style="list-style-type: none"> • Sales generated during the pre-sale campaign
	<ul style="list-style-type: none"> • Changes in customer unit price (on premium pricing capability) • Change in per-customer earnings • New customers-derived sale revenues • Revenues acquisition index (new customers) • Customer acquisition cost 	<ul style="list-style-type: none"> • Year-on-year sales value divided by the number of pieces sold • Percentage of sales invested in marketing and external communication • Percentage of sales derived from new clients • Ratio between revenue contribution from key customer relationships and total revenues • Cost of servicing customers (including the relationships of capital expenditures and net working capital requirements to revenues from key customer relationships)
	<ul style="list-style-type: none"> • Excess earnings, such as level of credit confidence 	<ul style="list-style-type: none"> • Average contracted interest rate in loans or straight bond issuances minus prime rate
	<ul style="list-style-type: none"> • Customer satisfaction per product/service line • Customer loyalty per product/service line • Penetration index vis-à-vis the most relevant customers 	<ul style="list-style-type: none"> • Customer satisfaction / Customer loyalty index • External corporate image index
	<ul style="list-style-type: none"> • Historical customer retention and attrition patterns 	<ul style="list-style-type: none"> • Monthly recurring revenues • Attrition/churn rate

Categories of Intangibles	Examples of Intangibles and their KPI	KPI Formula
Artistic-related	Books, magazines, newspapers, and other literary works: <ul style="list-style-type: none"> • Copyright term 	<ul style="list-style-type: none"> • Time left to maturity of copyright in years (e.g., remaining legal life of the copyright, expected economic life of the copyright)
	<ul style="list-style-type: none"> • Copyright rights in use and related arrangements 	<ul style="list-style-type: none"> • Number of active copyright rights currently in use and related arrangements to distribute copies by selling, renting, leasing, or lending the copyright intangible assets
	<ul style="list-style-type: none"> • Historical customer retention and attrition patterns 	<ul style="list-style-type: none"> • Recurring revenues from copyright rights • Attrition/churn rate
	<ul style="list-style-type: none"> • Association of the appropriate revenue and expense stream to the specific copyright 	<ul style="list-style-type: none"> • Revenue/expense contribution of the specific copyright to total revenues/expenses
	<ul style="list-style-type: none"> • Investment requirement to commercialise or otherwise exploit the copyright 	<ul style="list-style-type: none"> • Investment costs directly attributable to the specific copyright
	<ul style="list-style-type: none"> • Ownership, assignments and licensing 	<ul style="list-style-type: none"> • Degree of favourable terms in the assignment or license • Degree of enforceability of the assignment or license • Revenue derived from the assignment or license

Categories of Intangibles	Examples of Intangibles and their KPI	KPI Formula
Contract-related	Franchise Agreements: <ul style="list-style-type: none"> Franchising terms (pricing, contract life, renewals) Service level agreements 	<ul style="list-style-type: none"> Number and different types of franchising agreement maintained by an entity Amount of agreements expiring without renewal
	<ul style="list-style-type: none"> Franchisee's operating performance (turnover, systemwide sales, same-store sales, profits) 	<ul style="list-style-type: none"> Change in monthly turnover, number of transactions, systemwide sales, same-store sales growth rate and gross profit
	<ul style="list-style-type: none"> Success of a visit / Evaluation Client contact / Leads 	<ul style="list-style-type: none"> Site inspection evaluation results
	<ul style="list-style-type: none"> Franchisee/customer lifetime value; Franchisee/customer acquisition cost 	<ul style="list-style-type: none"> Length of contracted term (and the associated remaining useful life) History of renewals (and the premature termination of franchising agreements)
	<ul style="list-style-type: none"> Marketing attribution 	<ul style="list-style-type: none"> Ratio of marketing expenses to sales Relationship of marketing expenses to change in sales
	Other typical contracts and arrangements (e.g., supply contracts): <ul style="list-style-type: none"> Contract terms (pricing, contract life, renewals) 	<ul style="list-style-type: none"> Number and different types of contracts maintained by an entity Degree of favourable terms in the contract Length of contracted term (and the associated remaining useful life) History of renewals (and the premature termination of contracts) Presence of escalation rates and history of pricing renegotiations
	<ul style="list-style-type: none"> Lack of claims against the entity 	<ul style="list-style-type: none"> Number of instances regarding breach of contract claims and related litigation
	<ul style="list-style-type: none"> Level of supplier concentration or diversification 	<ul style="list-style-type: none"> Herfindahl-Hirschman Index (showing the degree of decentralisation of the share of major products in relation to total sales) Number of main factories of suppliers of core products Number of suppliers per product/service line

Categories of Intangibles	Examples of Intangibles and their KPI	KPI Formula
Technology-related	Patented technology: <ul style="list-style-type: none"> Investment costs in Research & Development Revenues from products derived from last 5 years registered patents Investment costs for patent registration 	<ul style="list-style-type: none"> Ratio between total R&D costs and total project costs Ratio between revenues from new products and total sales or ratio between net profit from new products and total net profit Revenues from last 5 years from new products
	<ul style="list-style-type: none"> Active patents on registered inventions 	<ul style="list-style-type: none"> Number of active patents Number of products in the pipeline covered by patents Intellectual property owned and its citation index
	<ul style="list-style-type: none"> R&D intensity 	<ul style="list-style-type: none"> R&D costs, including outsourced R&D cost
	<ul style="list-style-type: none"> Technology licensing program 	<ul style="list-style-type: none"> Degree of favourable terms in the licensing agreement Degree of enforceability of the licensing agreement Revenue derived from the licensing agreement Useful economic life of the licensing agreement History of renewals
	Unpatented technology / Technology platforms: <ul style="list-style-type: none"> Number of technology platforms Health of project pipeline 	<ul style="list-style-type: none"> Number of R&D projects near to application/operational implementation Number of internal R&D-generated products Percentage of sales revenues invested in product development/innovative activity New product ratio (Sales of products or services within 3 years from the initial sales / total sales) Number of proposed vs. implemented internal improvement proposals Measures taken to maintain the secrecy of unpatented technology knowhow
	<ul style="list-style-type: none"> Degree of R&D concentration on products/service lines/families 	<ul style="list-style-type: none"> Ratio between sales revenues invested in R&D and number of patents in production Number of innovative projects transferred to application development / Innovation Department workforce
	Software, Applications and Data processing intangibles: <ul style="list-style-type: none"> Investment cost 	<ul style="list-style-type: none"> Amount invested in software/information systems
	<ul style="list-style-type: none"> Age of the software and maintenance/enhancement practices 	<ul style="list-style-type: none"> Economic useful life / Remaining useful life

• Obsolescence	• Cost of improvements to make replacement more efficient or effective, Maintenance cost
• Reliability	• Reliability percentage, Number of outages
Data and AI:	
• Richness of database	• Percentage of total enterprise data available in central data platform • Percentage of data available in near real-time
• Depth of AI usage	• Total number of active models • Total number of active material models

Categories of Intangibles	Examples of Intangibles and their KPI	KPI Formula
Human Capital-related	Trained and assembled workforce: <ul style="list-style-type: none"> • Average age of employees • Degree of employee satisfaction • Average level of management leadership • Degree of internal consistency with / penetration of management principles • Attraction, recruitment, and turnover 	<ul style="list-style-type: none"> • Employee turnover; Management turnover; Job leaving ratio • Number of training hours per employee • Percentage of revenues invested in training • Percentage of positions filled through internal personnel growth
	<ul style="list-style-type: none"> • Internal corporate image with the employees 	<ul style="list-style-type: none"> • Survey results
	<ul style="list-style-type: none"> • Human resource development expenditure per employee 	<ul style="list-style-type: none"> • Workforce strength and desirability
	<ul style="list-style-type: none"> • Workforce strength and desirability • Parity of compensation and rewards (across gender, minority, etc.) 	<ul style="list-style-type: none"> • Employees' level of education synthetic index • Percentage of women in management • Average seniority of company employees (total employees) • Substitution of key positions index • Value-added per employee
	<ul style="list-style-type: none"> • Composition and diversity 	<ul style="list-style-type: none"> • Diversity ratios
	Trained and assembled workforce: (Cont.)' <ul style="list-style-type: none"> • Engagement, health, and well-being 	<ul style="list-style-type: none"> • Engagement index score • Rate of participation in wellness programs
	<ul style="list-style-type: none"> • Training, learning, and development 	<ul style="list-style-type: none"> • Return on investment in talent, total training hours and spend
	<ul style="list-style-type: none"> • Organisational culture, including alignment with purpose, values, etc. 	<ul style="list-style-type: none"> • Employee engagement scores
	<ul style="list-style-type: none"> • Depth of deep intellectual talent 	<ul style="list-style-type: none"> • Number in workforce with Masters/PhD level qualification • Percentage of workforce with Masters/PhD level qualification