

Business Simulations as a Work Integrated Learning Methodology

Stephen Allen



TASMANIAN SCHOOL OF BUSINESS AND ECONOMICS

Financial Section

Summarized Consolidated Statements of Financial Position by Manufacturing, Services and Others and Financial Services

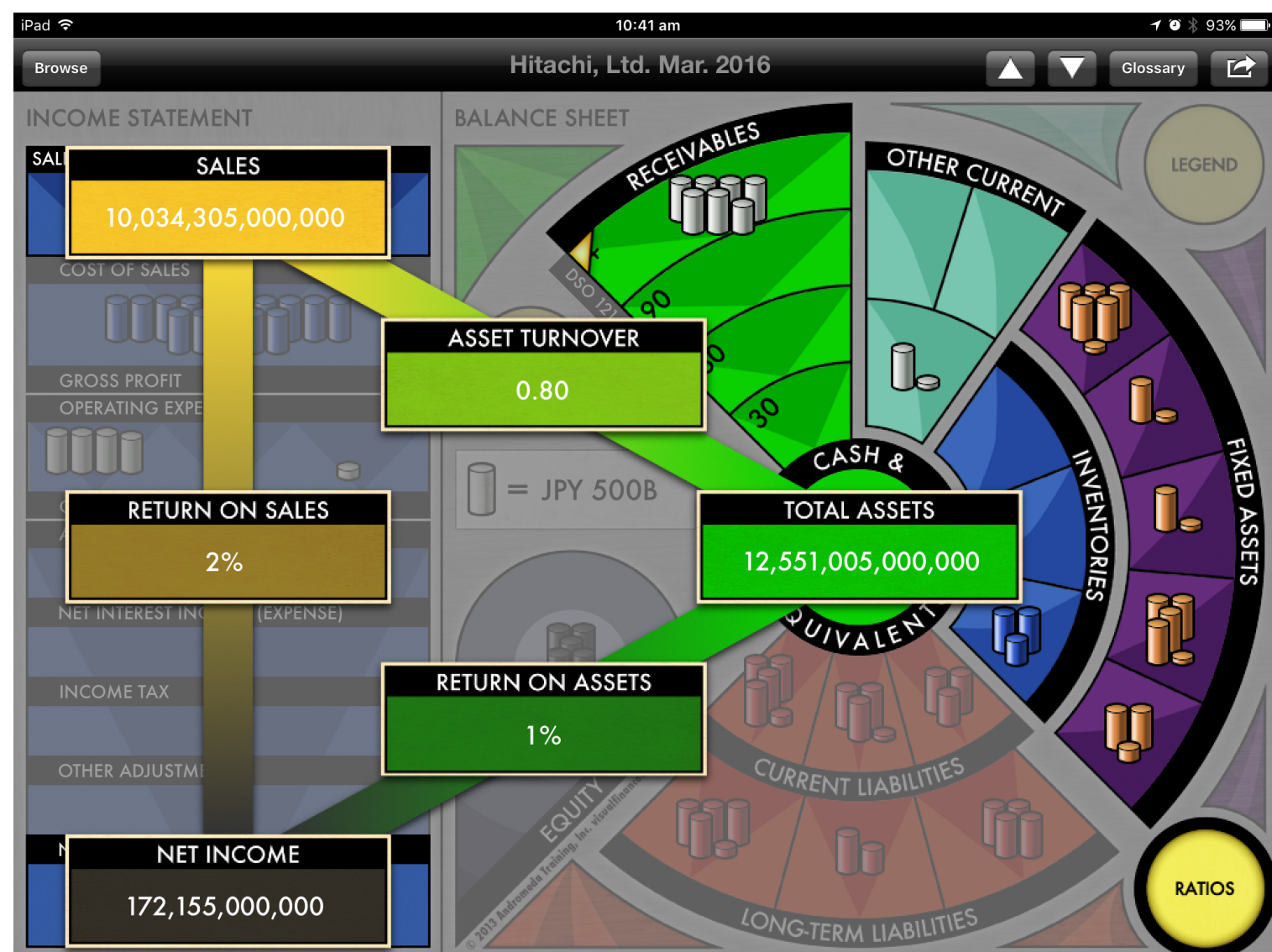
March 31, 2016 and 2015

	2015				2016			
	Manufacturing	Services	Others	Financial Services	Manufacturing	Services	Others	Financial Services
Assets								
Current assets	¥5,113.2	¥1,984.8	¥5,882.4	¥4,906.6	¥1,259.8	¥5,872.5		
Cash and cash equivalents	654.7	119.7	701.7	460.9	127.0	699.3		
Trade receivables	2,448.9	695.2	2,870.0	2,472.0	710.7	2,962.7		
Lease receivables	55.9	299.5	337.3	45.6	311.9	318.7		
Inventories	1,447.8	3.3	1,458.1	1,291.5	3.7	1,298.8		
Other current assets	507.7	66.9	515.1	525.3	78.3	441.8		
Non-current assets	4,869.2	1,768.8	6,551.3	4,922.3	1,834.8	6,678.4		
Investments accounted for using the equity method	682.2	19.4	681.6	676.3	20.4	676.9		
Investments in securities and other financial assets	772.6	709.8	1,489.7	681.6	675.9	1,329.9		
Lease receivables	42.3	680.7	480.6	38.2	729.8	727.4		
Property, plant and equipment	2,204.7	208.0	2,412.4	2,159.6	307.5	2,500.2		
Intangible assets	873.7	59.8	933.5	1,007.7	62.6	1,070.4		
Other non-current assets	288.4	41.8	333.2	324.6	38.7	374.4		
Total Assets	¥9,984.4	¥2,953.6	¥12,433.7	¥9,817.9	¥3,091.4	¥12,551.0		
Liabilities and Equity								
Current liabilities	¥3,962.9	¥1,270.5	¥4,779.4	¥4,095.5	¥1,323.2	¥4,994.2		
Short-term debt	574.4	154.3	927.7	528.8	407.6	871.4		
Current portion of long-term debt	193.0	357.9	483.5	234.9	485.6	651.5		
Other financial liabilities	362.9	588.5	295.4	285.5	407.1	280.0		
Trade payables	1,888.5	273.0	1,426.5	1,379.0	228.9	1,481.9		
Other current liabilities	1,544.0	66.7	1,595.3	1,486.1	710.8	1,759.3		
Non-current liabilities	2,086.0	1,346.2	3,337.9	2,088.0	1,451.1	3,131.2		
Long-term debt	860.2	1,246.3	2,096.1	790.3	1,356.2	2,081.5		
Other financial liabilities	77.7	42.2	117.5	85.0	28.7	115.1		
Retirement and severance benefits	717.9	6.2	724.2	724.1	9.5	734.6		
Other non-current liabilities	393.7	31.3	425.0	428.5	26.6	459.9		
Total Liabilities	6,012.5	2,616.8	8,117.3	6,113.5	2,784.4	8,435.4		
Hitachi, Ltd. stockholders' equity	2,768.3	195.3	2,963.2	2,548.8	207.3	2,735.3		
Non-controlling interests	1,213.5	141.4	1,354.0	1,243.5	165.7	1,380.4		
Total Equity	3,971.8	336.7	4,298.3	3,794.3	373.0	4,115.7		
Total Liabilities and Equity	¥9,984.4	¥2,953.6	¥12,433.7	¥9,817.9	¥3,091.4	¥12,551.0		
Interest-bearing debt	¥1,627.7	¥2,138.6	¥3,557.3	¥1,515.0	¥2,339.5	¥3,664.4		
Total Hitachi, Ltd. stockholders' equity ratio	27.6%	6.6%	23.7%	25.4%	6.5%	21.8%		
D/E ratio (including non-controlling interests) (times)	0.81	0.35	0.83	0.40	0.74	0.87		

* Total figures include non-segment transactions.

Theoretical Models for Business Simulations

- Tao et al (2015, p 79) indicate that in a gaming environment learning is a cyclical process and consists of the following steps: formation of playing strategy; active experimentation; state of the game world; and reflection.
- This particular simulation has the following attributes that illustrate these steps:
 - Participants are formed into teams to operate a business in a competitive market. Within the team, participants take on different roles (e.g. CEO, operations manager, CFO, sales and marketing);
 - The simulation is conducted over a number of 'periods' and at the start of each period, the team must develop a business strategy for the coming period given changing market and business conditions;
 - Through the implementation of their strategy in a particular period, each team realises the impact of their decision making on their business; and
 - At the end of each period, the team prepares reports on the performance and position of their business and reflect on how their decisions impacted.

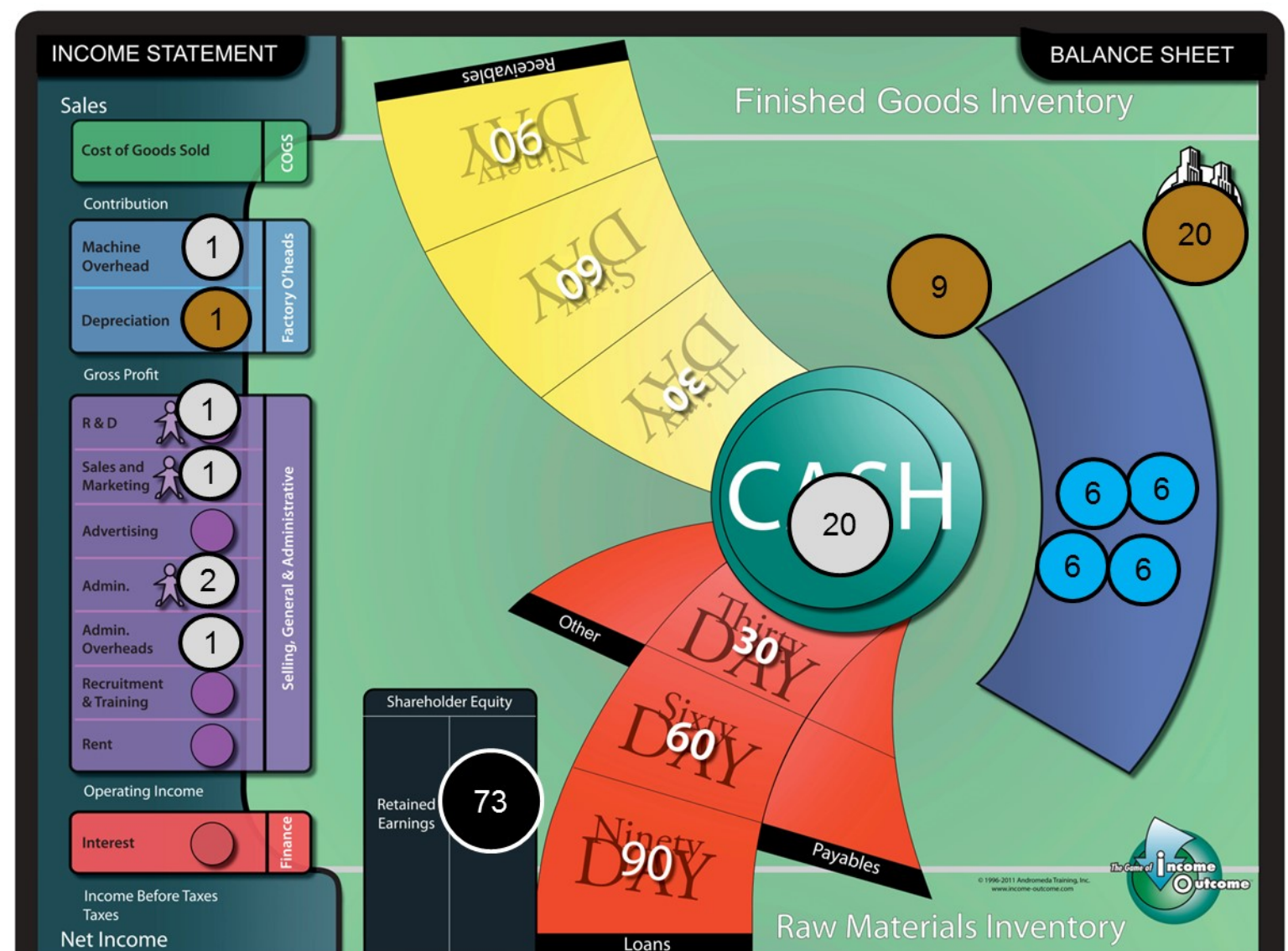


Business Simulations Provide Work Integrated Learning

- Business simulations are a learning methodology where complex real-world business decisions are designed into a game based approach (Prensky, 2002).
- A business simulation can be designed for any industry or company and will replicate the complex business decision making skills needed by managers and executives in that industry (Naish, 2005).
- Often managers and senior executives in an organisation come from a technical background (e.g. engineering) and find they need business and financial acumen in order to operate effectively in their management and leadership roles.
- Business simulations allow managers and executives to develop and hone these skills in a 'practice' environment' (Orbanes, 2002).

A Visual Approach to Representing Complex Financial and Business Information

- Business simulations conducted through a board game approach can illustrate very complex financial performance and financial position issues in a high impact, visual way.
- The diagram above represents the financial performance and financial position of Hitachi Ltd for the year ended 31 March 2016.
- Non-finance executives and managers often do not identify with complex financial and business information presented in the traditional way (see above).
- In addition, this visual approach can be used to illustrate the impact of business decisions in a complex business environment (e.g. the impact of foreign currency transactions, the impact of taxation).



Business Simulations Cater for Different Learning Styles

- Business simulations, using a game board approach cater for different learning modalities (Barbe et al, 1979):
 - Visual learning—complex business and financial acumen concepts and principles are represented visually using colour on a game board;
 - Auditory learning—learning 'snapshots' are provided in an auditory style, participants discuss and solve complex business decisions and principles using a team approach; and
 - Kinesthetic learning— chips and game pieces are moved around the game board to represent complex financial and business concepts and principles.
- A case can also be made for several of the Kolb and Kolb (2013) nine learning styles.

List of References

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Kolb, DA, and Kolb, KY, 2013, The Kolb Learning Style Inventory 4.0: Guide to Theory, Psychometrics, Research and Applications, Experience Based Learning Systems,

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