**DETAILS**

Student: Dominic Rose (BSc Industrial Economics)

Institution: University of Nottingham

Level of course: bachelor’s degree, first year (module: Organisational Behaviour)

Title of work: Organisational Behaviour Coursework

**ABSTRACT**

The incentive for firms to profit maximise is embedded in the culture of many organisations, taken to extremes in prestigious business locations including Silicon Valley, where Elizabeth Holmes’ medical startup, Company X, reached a peak valuation of $9bn. However, Holmes’ ambition to change the world through the eradication of large needles in blood extraction has been met with criticism that the technology is ineffective. Autocratic control within Company X to conceal this from stakeholders led to employee whistleblowing and the suicide of Company X’s Chief Scientist. An analysis of Holmes’ leadership style and employee accounts reveal that autocracy and secrecy permeated Company X’s culture and inhibited its success. When cross-referenced with deontological ethics, Holmes’ actions are justified as morally impermissible. Using game theory, this essay explores Holmes’ possible incentives to lead the firm in this way, and how an authentic leadership style, combined with an open culture, could have prevented the company’s decline.

**Analyse Elizabeth Holmes’ actions at Company X, including her response to critics inside and outside her company, drawing on the *leadership* topic. Was Holmes’ leadership approach morally permissible? Use an ethical theory introduced in this module to justify your position.**

In 2003, Elizabeth Holmes initiated a health technology company, Company X, aiming to revolutionise effective healthcare delivery (Parloff, 2014). This included eradicating large needles in blood extraction, as well as reducing the price of consumer testing by 90% of the market equilibrium (Popken, 2017).

Holmes’ vision was complemented by motivation and commitment, appearing to many as a transformational leader, i.e. a CEO that inspires individuals, exceeding expectations to improve Company X’s organisational performance (Huczynski & Buchanan, 2013). For instance, H. Kissinger, former US secretary of state, claims that Holmes inspires employees through intellectual dominance (Auletta, 2014).

However, ‘Edison’, Company X’s main blood testing analysis technology, received scepticism from the scientific community due to lack of peer-reviewed publications ratifying the accuracy of blood results (Loria, 2015a; Parloff, 2014). This criticism was exacerbated by Holmes’ decision to remain secretive and vague regarding the technology’s functionality despite repeated questioning by academics (Loria, 2015b). This motivated J. Carreyrou’s (2016) investigation that concluded Company X had fabricated research.

In response, Holmes stated that critics naturally attack visionaries aiming to change the world, but it does not mean that they are correct – even stating that Company X has “never been against peer review” (Kelly, 2015; Pollack, 2015). Seidman & McCauley (2011) argue that transformational leaders can drive change too quickly, diminishing the reputation of their organisations by selling products prior to perfection due to excessive ambition. At Company X, chief scientist, I. Gibbons had told Holmes that Edison’s results were inaccurate and that the invention was not ready to enter the market. However, Holmes ignored this concern and opened ‘Company X Wellness Centres’, where the public could have their blood processed with the technology (Bilton, 2016). Huczynski & Buchanan (2013) support this, claiming that 75% of transformational leaders are dominant and often unwilling to listen. Rushing to commercialise Company X before ensuring the quality of its products contributed to the devaluation of the firm from a peak of $9bn to $800m (Herper, 2016a).

Holmes’ actions also demonstrated traits of tyrannical leadership, evidenced by the manipulative manner attempting to disrupt the healthcare industry (Vroom & Jago, 2007). For example, former employee, T. Shultz, critiqued the reliability of the firm’s technology results. Yet, Company X maintained its $50m partnership with drugstore chain, Walgreens, in light of concerns that inaccurate blood results could lead to misdiagnoses of life-threatening illnesses (Carreyrou, 2016; Tracy, 2016).

It is arguable that an autocratic leadership style most represented Holmes’ actions, where leaders have complete control over staff (Amanchukwu et al., 2015). Holmes’ authority spread from finer organisational decisions, including the number of American flags in Company X’s hallways, to broader marketing strategies (Bilton, 2016). This leadership dominance led to structure initiation within Company X, contributing to high organisational performance and subsequently the ‘Best Health Startup’ award (Judge et al., 2004).

Autocracy also led to dismissing internal critics including Gibbons, whilst Shultz’s mathematical prowess was belittled (Durden, 2016; Lee, 2003). Despite other Company X employees questioning the validity of test results, Holmes implemented a segregation system restricting communication between colleagues, creating a secretive company culture (Smith, 2016). External critics, including Carreyrou, received retaliation from Holmes stating that the *Journal* lacked accurate insight into Company X technology to justify their negative assumptions (Parloff, 2015).

Ultimately, failure to evidence Edison’s accuracy against competitors, such as LabCorp, in the aftermath of criticisms caused Company X’s integrity to diminish. For instance, two years of Edison-test results were voided (Sridhar, 2016). Ciulla (2007) argues that good leadership consists of strong technical ability and moral values. Holmes’ ‘intellectual dominance’ implies technical understanding, but commercialising a product that produces sensitive data despite internal and external concerns is morally contentious. To address early issues, Holmes could have considered the contingency theory of leadership, i.e. the effectiveness of leading depends on the situation (Mills & McKimm, 2016). Adopting an authentic leadership style incorporating positive psychological qualities and strong ethics could have generated engagement in the earlier questioning associated with reliability and avoided a downfall at Company X’s peak valuation (Walumbwa et al., 2008). Therefore, I will argue that Holmes’ leadership approach was not morally permissible.

To justify this, I will assess Holmes’ approach through the lens of deontology from the position of ethical absolutism. This means that certain principles are either right or wrong irrespective of their outcomes, and that right and wrong are objective and rationally determined (Boatright, 2014; Crane & Matten, 2016). This will provide unequivocal ‘morally right or wrong’ solutions to ethical decisions made by Holmes (i.e. Kant’s categorical imperative) (Crane & Matten, 2016).

One form of the Kantian categorical imperative is to not use individuals as a means to an end or behave exploitative (Fieser, 2001). To achieve Company X’s valuation of $9bn, Holmes’ vision persuaded investors to facilitate the production of technology and conduct minimalistic due diligence (Bort, 2016; Markley, 2016). However, Holmes was (allegedly) aware of Edison’s shortcomings during the startup’s conception, which means that investment was secured fraudulently (Kosoff, 2016). Kantian ethics suggests that this is immoral as dishonesty is wrong. Additionally, Gibbons was used as a means to an end (to commercialise Edison). During his tenure at Company X, concerns regarding reliability were silenced and he worried that questioning Holmes would result in being discharged. This autocratic behaviour led to the attempted suicide, and eventual death, of Gibbons (Bilton, 2016). Therefore, Holmes’ leadership was not morally permissible because labour concerns were disparaged.

Universalism, another component of the categorical imperative, refers to an action as morally permissible if it could be executed ubiquitously and still be acceptable (Fieser, 2001). Holmes’ transformational style led to widespread admiration – her words were regularly taken at face value, reassuring consumers that the technology was reliable (TIME, 2015). Yet, blood passing through a finger via the Company X process is contaminated with outliers, namely dead skin cells affecting test results, leading to misdiagnoses (Pollack, 2016). As universal manipulation would be fruitless, it is morally wrong to mislead the public because rational individuals would not want their health-related information to be incorrect. Therefore, scaling Company X to its peak in 2013 before solving critiques was not morally permissible (Duhaime-Ross, 2016).

However, game theory is a concept that could rebut the need for Holmes’ leadership approach to be morally permissible since strategic thinking is necessary to operate financially sustainable businesses. This leads to decisions that might attenuate the importance of ethics in decision-making, yet facilitate market dominance.

Figure 1

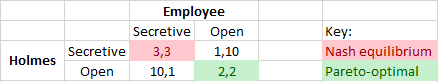


Figure 1 depicts a payoff matrix for Holmes’ leadership style. Lower numbers represent an increased probability of successful Edison commercialisation with long-term sustainability. In this scenario, a rational leader would implement a ‘secretive’ culture, i.e. limiting an understanding of Company X technology to external consumers/competitors, rather than an ‘open’ culture, i.e. complete transparency of Edison’s functionality. This is because exposing the unique selling point of the machine could lead to replication in competitor technology, reducing Company X’s market share.

Given the possible actions of employees (remain secretive, or open (whistleblow)), Holmes’ best decision (Nash equilibrium) was to implement a secretive culture. This is because the numbers are lower for Holmes in the ‘secretive’ row (3 and 1) versus the respective ‘open’ row (10 and 2) (Mankiw & Taylor, 2011). This decision process depends on rationality; ethics of duty implies that individuals are independent and make rational decisions (Gregor, 1998). So, if Holmes was acting logically, analysing her action to instate a secretive culture through an alternative ethics lens suggests moral permissibility. For instance, discourse ethics, an approach that solves ethical dilemmas through norm generation, might support Holmes’ rationale to act autocratic, controlling and secretive (Crane & Matten, 2016). Exposure of inaccurate Edison results led to negative publicity and stakeholder impacts including 41% of staff losing their jobs (Chen, 2017; Herper, 2016b). Therefore, acknowledging all relevant participants, it could be argued that Holmes’ leadership approach was morally justified because these consequences could have been averted (assuming media leakages had not occurred).

However, this aspect of game theory can be overlooked in the context of Company X because it assumes the economic principle: ‘individuals respond to incentives’ (Colander, 2016). Shultz was forbidden to discuss Edison outside of Company X, yet explained its reliability issues to journalists (Crotti, 2016). Therefore, the incentive of the employment contract was too weak to discourage whistleblowing. If an open culture had been implemented by Holmes prior to its unicorn status, it would have been possible to improve Edison before the company’s integrity was disputed. This would have enabled a slower (but sustainable) scaling of Company X, executing its go-to-market strategy when the technology had progressed through demanded peer-review tests. In this situation, the Pareto-optimal (Figure 1) could be achieved, i.e. where no individual can be made better off without making another worse off (Mankiw & Taylor, 2011). This solution provides long-term commercial sustainability and morally permissible leadership due to absence of deceit.

Overall, Holmes’ actions at Company X breached objective and universal principles associated with Kant’s categorical imperative. Transformational leadership provided the influence to achieve ambitions to realistically revolutionise the health industry, resulting in recognition as one of TIME’s ‘Most Influential People’ (TIME, 2015). However, using this influence to facilitate awareness of Company X and Edison’s reliability despite internal and external critics resulted in an inflated peak value of $9bn. This was exacerbated by an autocratic style within the firm, controlling small- and large-scale employee actions and broader firm decisions. The result was a secretive company culture, which appears logical through game theory analysis. However, the Pareto-optimal is the best possible outcome in Company X’s context, whereby an open culture complemented by an authentic style could have tackled Edison’s reliability concerns earlier in the firm’s growth. If these actions had been executed, it could be argued that Holmes’ leadership would be supererogatory – i.e. exceeding expectations of shareholders to solely commercialise Edison (Brinkmann, 2015). This may have reduced the negative impacts of media attention on the stakeholders of Company X, such as laid off employees. Therefore, empirical evidence concerning belittling employees and manipulating venture capitalists, when cross-referenced with deontological ethics, supports the justification that Holmes’ leadership approach was morally impermissible.

**REFERENCES**

Amanchukwu, R., Stanley, G. & Ololube, N. (2015). A Review of Leadership Theories, Principles and Styles and Their Relevance to Educational Management. *Scientific & Academic Publishing*, Vol.5(1), pp. 6-14.

Auletta, K. (2014). Blood, Simpler. *The New Yorker*, 15th December. Downloaded from <http://www.newyorker.com/magazine/2014/12/15/blood-simpler> on 1st April 2017.

Bilton, N. (2016). Exclusive: How Holmes’s House of Cards Came Tumbling Down. *Vanity Fair*, 6th September. Downloaded from <http://www.vanityfair.com/news/2016/09/elizabeth-holmes-theranos-exclusive> on 4th April 2017.

Boatright, J. (2014). Ethical Theories. *Ethics and the conduct of business*, Seventh Edition, pp. 54-75, Edinburgh, Pearson.

Bort, J. (2016). Blood-testing ‘vampires’ want to take down Company X, says investor Tim Draper. *Business Insider*, 12th May. Downloaded from <http://uk.businessinsider.com/why-investor-tim-draper-still-loves-theranos-2016-5> on 8th April 2017.

Brinkmann, M. (2015). Disjunctive duties and supererogatory sets of actions. *Royal Institute of Philosophy*, Vol.77, pp. 67-86.

Carreyrou, J. (2016). Company X Whistleblower Shook the Company – and His Family. *The Wall Street Journal*, 18th November. Downloaded from <https://www.wsj.com/articles/theranos-whistleblower-shook-the-companyand-his-family-1479335963> on 2nd April 2017.

Chen, C. (2017). Company X to Lay Off 41% of Workforce, Company Says. *Bloomberg*, 6th January. Downloaded from <https://www.bloomberg.com/news/articles/2017-01-06/theranos-to-fire-41-of-workforce-in-second-round-of-cuts> on 10th April 2017.

Ciulla, J. (2007). The Importance of Leadership in Shaping Business Values. In: Zimmerli, W., Richter, K. & Holzinger, M. eds., *Corporate Ethics and Corporate Governance*, pp. 69, Berlin, Springer.

Colander, D. (2016). Tools, Not Rules: Are We Teaching the Wrong Principles of Economics in the Introductory Course? *Eastern Economic Journal*, Vol.42(2), pp. 163-168.

Crane, A. & Matten, D. (2016). Evaluating Business Ethics. *Business Ethics*, Fourth Edition, pp. 85-125, New York, Oxford University Press.

Crotti, N. (2016). Company X’s Fall: What You Really Should Know. *Qmed*, 7th September. Downloaded from <http://www.qmed.com/mpmn/medtechpulse/theranos-fall-what-you-really-should-know?page=8> on 10th April 2017.

Duhaime-Ross, A. (2016). Company X isn’t as reliable as conventional labs – and that could be bad for patients. *The Verge*, 28th March. Downloaded from <http://www.theverge.com/2016/3/28/11320328/theranos-comparison-study-labcorp-quest-diagnostics-not-reliable> on 9th April 2017.

Durden, T. (2016). Company X Whistleblower Tells All On Intimidation And Coercion Tactics Employed To Silence Him. *Zero Hedge*, 17th November. Downloaded from <http://www.zerohedge.com/news/2016-11-17/theranos-whistleblower-tells-all> on 7th April 2017.

Fieser, J. (2001). Kant’s Categorical Imperative. *Moral Philosophy Through the Ages*, pp. 173-188, United States of America, Mayfield Publishing Company.

Gregor, M. (1998). *Kant: Groundwork of the Metaphysics of Morals*, pp. 7-52, Cambridge, Cambridge University Press.

Herper, M. (2016a). Bad Blood: The Decline And Fall Of Elizabeth Holmes And Company X. *Forbes*, 8th October. Downloaded from <https://www.forbes.com/sites/matthewherper/2016/10/08/bad-blood-the-decline-and-fall-of-elizabeth-holmes-and-theranos/#3356aab1c335> on 5th April 2017.

Herper, M. (2016b). From $4.5 Billion To Nothing: Forbes Revises Estimated Net Worth Of Company X Founder Elizabeth Holmes. *Forbes*, 1st June. Downloaded from <https://www.forbes.com/sites/matthewherper/2016/06/01/from-4-5-billion-to-nothing-forbes-revises-estimated-net-worth-of-theranos-founder-elizabeth-holmes/#cd77fdd36331> on 10th April 2017.

Huczynski, A. & Buchanan, D. (2013). Leadership. *Organizational Behaviour*, Eighth Edition, pp. 651-689, Edinburgh, Pearson.

Judge, T., Piccolo, R. & Ilies, R. (2004). The Forgotten Ones? The Validity of Consideration and Initiating Structure in Leadership Research. *Journal of Applied Psychology*, Vol.89(1), pp. 36-51.

Kelly, J. (2015). Why the World’s Youngest Self-Made Female Billionaire May Be in Big Trouble. *Vanity Fair*, 15th October. Downloaded from <http://www.vanityfair.com/news/2015/10/theranos-founder-elizabeth-holmes-report> on 2nd April 2017.

Kosoff, M. (2016). More Bad News for Elizabeth Holmes: Major Investor Sues Company X for Fraud. *Vanity Fair*, 11th October. Downloaded from <http://www.vanityfair.com/news/2016/10/major-investor-sues-theranos-for-fraud> on 8th April 2017.

Lee, G. (2003). The role of the unconscious. *Leadership Coaching: From Personal Insight to Organisational Performance*, pp. 53, London, Chartered Institute of Personnel and Development.

Loria, K. (2015a). Here’s what we know about how Company X’s ‘revolutionary’ technology works. *Business Insider*, 16th October. Downloaded from <http://uk.businessinsider.com/how-theranos-revolutionary-technology-works-2015-10?r=US&IR=T> on 2nd April 2017.

Loria, K. (2015b). Scientists are skeptical about the secret blood test that has made Elizabeth Holmes a billionaire. *Business Insider*, 25th April. Downloaded from <http://uk.businessinsider.com/science-of-elizabeth-holmes-theranos-2015-4?r=US&IR=T> on 2nd April 2017.

Mankiw, G. & Taylor, M. (2011). Oligopoly. *Economics*, Second Edition, pp. 364-366, China, Cengage Learning.

Markley, N. (2016). Due diligence is a responsibility for investors, an opportunity for startups. *TechCrunch*, 4th October. Downloaded from <https://techcrunch.com/2016/10/04/due-diligence-is-a-responsibility-for-investors-an-opportunity-for-startups/> on 8th April 2017.

Mills, J. & McKimm, J. (2016). Contingency theories of leadership: how might we use them in clinical practice? *British Journal of Hospital Medicine*, Vol.77(5), pp. 268-271.

Parloff, R. (2014). This CEO is out for blood. *Fortune*, 12th June. Downloaded from <http://fortune.com/2014/06/12/theranos-blood-holmes/> on 1st April 2017.

Parloff, R. (2015). Are the Wall Street Journal’s allegations about Company X true? *Fortune*, 15th October. Downloaded from <http://fortune.com/2015/10/15/theranos-elizabeth-holmes-wsj/> on 7th April 2017.

Pollack, A. (2015). Company X, a Blood Testing Start-Up, Defends Its Accuracy. *The New York Times*, 21st October. Downloaded from <https://www.nytimes.com/2015/10/22/technology/theranos-elizabeth-holmes.html?_r=2> on 4th April 2017.

Pollack, A. (2016). Elizabeth Holmes of Company X Is Barred From Running Lab for 2 Years. *The New York Times*, 8th July. Downloaded from <https://www.nytimes.com/2016/07/09/business/theranos-elizabeth-holmes-ban.html> on 9th April 2017.

Popken, B. (2017). How $9 Billion Startup Company X Blew Up And Laid Off 41%. *NBC News*, 6th January. Downloaded from <http://www.nbcnews.com/business/consumer/how-9-billion-blood-testing-startup-theranos-blew-n671751> on 1st April 2017.

Seidman, W. & McCauley, M. (2011). Transformational Leadership in a Transactional World. *OD Practitioner*, Vol.43(2), pp. 46-51.

Smith, J. (2016). Elizabeth Holmes ‘scolded employees for speaking and had lawyers patrol Company X’s Silicon Valley HQ’ before top scientist who found flaws in her one-prick blood test killed himself. *Daily Mail*, 22nd October. Downloaded from <http://www.dailymail.co.uk/news/article-3861528/Elizabeth-Holmes-scolded-employees-speaking-lawyers-patrol-Theranos-Silicon-Valley-HQ-scientist-flaws-one-prick-blood-test-killed-himself.html> on 7th April 2017.

Sridhar, V. (2016). Company X voids two years of Edison test results: WSJ. *Reuters*, 19th May. Downloaded from <http://uk.reuters.com/article/us-theranos-regulations-idUKKCN0YA082> on 8th April 2017.

TIME. (2015). Elizabeth Holmes. 16th April. Downloaded from <http://time.com/collection-post/3822734/elizabeth-holmes-2015-time-100/> on 9th April 2017.

Tracy, A. (2016). More Bad News for Elizabeth Holmes as Company X Loses Its Partnership with Walgreens. *Vanity Fair*, 13th June. Downloaded from <http://www.vanityfair.com/news/2016/06/elizabeth-holmes-theranos-loses-walgreens-partnership> on 6th April 2017.

Vroom, V. & Jago, A. (2007). The Role of the Situation in Leadership. *American Psychologist*, Vol.62(1), pp. 17-24.

Walumbwa, F., Avolio, B., Gardner, W., Wernsing, T. & Peterson, S. (2008). Authentic Leadership: Development and Validation of a Theory-Based Measure. *Journal of Management*, Vol.34(1), pp. 89-126.

**APPENDIX**

Requirements:

This time last year, Elizabeth Holmes was the world’s youngest self-made female billionaire. But all has not been well with Holmes’ biotech start-up, Company X. Your task is to analyse the scandal at Company X, drawing on topics you’ve been introduced to in this module.

Case analysis question:

Analyse Elizabeth Holmes’ actions at Company X, including her response to critics inside and outside her company, drawing on the *leadership* topic. Was Holmes’ leadership approach morally permissible? Use an ethical theory introduced in this module to justify your position.