

Case Study: High Speed Trouble – Knight Capital

MFIN 841: Financial Technology & Innovation

Overview

For the deliverable, students are expected to deliver a written case study report. The write-up must be submitted through the course portal submission box.

Direction

Students will analyze the impact of high-speed trading on the markets and the implications for investors and businesses. This case will provide students with an understanding of high-frequency trading (HFT) and how it has altered the trading landscape. The report should address the questions brought up in the case. Present analysis and research from the case and case files as well as external sources.

Integrate the following questions into your case write-up:

Multiple-Choice:

1. What is the key lesson from the Knight Capital case?
 - a) Aggressive use of new technology in capital markets opens trading up to abuse that will hurt investors and listed companies and which regulators will have a hard time policing.
 - b) When new technology such as HFT rolls out, it takes regulators a while to develop appropriate oversight rules, during which time there is a greater risk of injury to market participants.
 - c) The adoption of new technology in capital markets produces a similar effect as in other industries: customers benefit from greater efficiencies, and early-adopter companies enjoy a competitive advantage until the rest of the industry catches up.
2. What changes could Knight Capital have made to improve its chances of survival?
 - a) Create better trading algorithms.
 - b) Invest additional capital in fibre optic cables and operations closer to exchanges.
 - c) Institute better oversight, review and risk management.
 - d) White-label its trading algorithms and sell them to large financial institutions.
3. What was the best course of action for Knight Capital when the NYSE rolled out its Retail Liquidity Program (RLP)?
 - a) Avoid participating in a new trading initiative that challenged the firm's own business model.
 - b) Participate in the program, but only at a time that was convenient to Knight Capital and its software development team.
 - c) Move aggressively into the program on day 1 so the firm wouldn't get squeezed out by competitors.

Written-Answer:

1. Knight Capital was a pioneer in the world of high-frequency trading but ultimately was unable to survive as the market developed.
 - What were the three critical moments in its history that turned the tide against the firm?
 - Could management have charted a better course at any of these moments?
2. Knight Capital was run by men with big personalities who moved quickly and aggressively to try to stay ahead of their competitors.
 - Why are these types of characteristics often beneficial for start-ups?
 - As a company matures, what other characteristics might its senior leadership team need to possess and why?
3. Private companies often implement technology and innovative business models that regulators do not have experience overseeing. In the case of high-speed trading, the SEC tried to balance the interests of investors, listed companies and traders. Did it do a reasonable job or not? Why?
4. Knight Capital enjoyed success as a technological leader but began to lose its competitive advantage as high-speed trading became more commoditized. What should it, and other players such as Getco, have done to survive once the HFT systems became more common?
5. When Knight Capital launched its new computer trading system on Aug. 1, 2012, poor planning not only created a critical software error but also left the firm ill-equipped to manage the crisis that ensued.
 - What fundamental systems integration steps were missing when Knight Capital switched over to its new trading system?
 - What should the company have done to improve both communication and responsibility around the switchover?
 - What technological solutions could Knight Capital have created to help mitigate its trading error?
 - What are the pros and cons a company should consider before incorporating a “kill switch” in its IT systems?
 - Who should have the authority to engage a “kill switch”, in what circumstances, and what should the oversight process be?

The report should be **no longer** than 5 pages double spaced with 12-point font. This includes tables, figures, references, and links. Writing for financial professionals requires very compact writing, if it isn't necessary to understand it shouldn't be there. No repetition!

Identification of the Main Issue in the Case	5
- Explain how the trading landscape has changed over the years	

<ul style="list-style-type: none"> - Explain how HFT works - Highlight what led to Knight Capital's success and what failures they experienced - Explain what led to the emergence of KCG Holdings Inc. 	
Analysis <ul style="list-style-type: none"> - Analyze the criticisms of HFT and present your own opinion on the outlook for HFT - Thorough research and analysis using case and external sources - Course material is applied - Answer case questions correctly 	10
Professional Quality of Case write-up <ul style="list-style-type: none"> - Double spaced, 12 pt. font and 5 pages maximum - Free of grammar and spelling errors - Clear and concise presentation of ideas and analysis 	5
TOTAL	20