

BTA Update Goes Electronic

Anna-Clare Vivian, Editor



This may be the last time that many of you receive a hard copy of the BTA Update. In the age of instant global communications, customers demand immediate access to the latest information, they prefer the paperless electronically ordered office, they seek to disseminate and replicate information by the fastest means possible. Or do they...? Perhaps they enjoy the

quality and feel of the printed document, perhaps they like to flick the pages over rapidly as they search for essential information. Perhaps time pressures prevent them from printing out the electronic version, so it is filed for later reference where it subsequently disappears into cyberspace. Well, here at BTA we would like you to decide how you would like to receive our Update.

The next version will be sent out electronically in pdf format. If however, you would like still like to receive a hard copy, or would like to register your e-mail address, please inform us at:

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INSIDE - DON'T MISS:

➤ Global trading system fairness

➤ WAP - the bridge to a wireless world?

What Do Investors Really Think of Online Trading?

Martin Scullion, Analyst, BTA Consulting

BTA commissioned a survey in March 2000 with the aim of discovering what effect online trading is having on the traditional brokerage industry. The conclusions that were drawn from the survey provided some very interesting results that contradicted some of the commonly held opinions concerning investor attitudes. A total of 276 online investors participated in our online survey, which was conducted over a 4-week period.

Introduction

Of all the new businesses and services that have materialised since the Internet achieved critical mass, perhaps none has captured the imagination, or generated as much attention, as the online brokerage industry.

The online industry itself has been very quick to tout a paradigm shift in the broker/client relationship. Numerous industry analysts and commentaries have also been quick to dismiss the traditional stockbroking model in favour of a new online version. Despite all of

the enthusiasm for the Internet, traditional brokerages initially were very sceptical about online trading and concluded that it would not appeal beyond a small group of younger, risk adverse investor. No doubt the fact that the typical online investor did not neatly fit the ideal profile mould of a traditional investor, also influenced the traditional industry's decision to initially ignore online investing. While most traditional brokerages have now introduced online trading facilities in an attempt to stop investors migrating to brokerages that do provide online trading, their approach is still fundamentally different from that of their online counterparts. The traditional industry's decision to embrace online trading appears to be a reactive response rather than a strategic decision, and this is really the crux of the whole online verses traditional debate.

Traditional brokerages and online brokerages are at the opposite ends of the spectrum when it comes to viewing the challenges and opportunities posed



by the Internet. Whilst the online industry sees the Internet as the great enabler that allows investors to take control of their own destiny, traditional brokerages are still working on the basis that almost all investors need the support and attention of a professional broker to secure their financial future. The traditional industry still views the Internet as just another delivery medium rather than a mechanism that will fundamentally reshape the entire stockbrokerage industry.

Source of Investors

One of the biggest unanswered questions concerning online investing has been the source of online investors. Perhaps the initial reluctance of the traditional brokerages to fully appreciate the challenges posed by the online brokerage industry can be explained by the simple fact that despite the online industry's claims to the contrary, traditional brokerages were not haemorrhaging clients. BTA's research has shown that only 19% of online investors abandoned a traditional or discount brokerage to move exclusively to an online brokerage. The largest segment of online investors (41%) are in fact new investors who have not previously owned a brokerage account. Although online brokerages have not been as successful at persuading traditional brokers' clients to migrate as they have indicated, 29% of investors surveyed did have both a traditional and online brokerage account, and 35% of these investors were considering giving up their traditional account for the cheaper transaction fees of online brokers. The allure of online investing should not be underestimated, considering that in 1996 the number of online brokerage accounts could be counted in the tens of thousands, but by the end of the first quarter of 2000 the number of accounts in the U.S. alone had reached 15 million and online assets had surpassed the \$1 trillion mark.

Contradictory Findings

Some of the findings from the survey also contradicted some of the commonly held general consensus about investors. For example, despite 60% of investors who took part in the survey agreeing that traditional brokerages provide a superior service to their online counterparts, only 49% of investors who owned both an online and traditional account agreed with the same statement. Probably the most surprising result concerned investor price sensitivity. Most analysts believe that investors will ultimately be willing to pay higher fees for superior service. In fact, only 6% of respondents were willing to pay higher fees for additional services. Surprisingly, of the 35% of investors who owned both an online and traditional account who were considering abandoning their traditional account for cheaper online transactions, 19% also acknowledged that traditional brokers provided a better service than their online counterparts.

Who will win?

The online industry enjoys massive cost advantages over its traditional counterparts and has already adapted to working in a low margin high volume environment, which means that they are better poised to move up the value chain (i.e. add value added services etc) than the traditional industry is to move down. The Internet provides the online industry with the ability to modularise products and services, which can then be customised to meet individual investor needs. The ability to individualise products will become an important differentiating factor as competition within the brokerage industry intensifies.

The traditional industry has been quick to point out that its extensive infrastructure and vast range of products are far superior to anything that the online industry has to offer. However, rather than providing unattainable competitive advantage, the traditional industry's established infrastructure may actually be its biggest liability. Instead of being able to modularise its services to fit customers needs, the traditional industry is inflexible due to its large overheads and organisational culture. The philosophy of the traditional brokerage seems to be based on full service or no service, which is utterly ill suited to compete when differentiating and individualisation strategies are the new winning formula.

However, despite the obvious advantages that the online industry possesses in terms of cost and the ability to use push technology to individualise their products, the survey also highlighted some very important weaknesses that the online industry needs to address before it can even attempt to challenge the dominance of the traditional industry. The single most important issue facing the online industry is the need to attract a more diversified class of investor. Until the online industry offers the services that mainstream investors demand, it will not be able to break out of its current financial straight jacket of almost total dependency on revenues from share transactions to survive.

Please feel free to e-mail the author with any comments that you may have concerning this article:

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BISX

Bahamas International Securities Exchange

NEWS FLASH!

Within the next week, BTA will hand over its two remaining BISX officers, Brian Taylor as interim Chief Executive Officer and John Crackett as interim Chief Information Officer, to Bahamian management. The BTA management team are delighted to have completed the first new exchange of the 21st Century in just eight months, and are now resuming their role as independent consultants.



Karen Webster, BA, CA
- Finance Director

Karen joined BTA in July 2000 as Director of Finance and Administration. She brings significant strength to BTA with regard to the ongoing development and management of the company's business plan, which will enable BTA to list within a three year period. She is also improving the accounting system, and internal procedures and controls to meet management reporting requirements. Karen manages all human resources related matters, in addition to client and third party contractual relationships. Shortly, she will be assessing and managing BTA's investment in incubator companies.

Karen trained with KPMG in Scotland, qualifying as a Chartered Accountant in 1985. She then specialised in taxation for several years, before setting up her own accountancy and tax practice. She has spent the last six years in the commercial sector, initially in IT training and subsequently global IT publishing. She also has extensive experience of company acquisitions and disposals.

Global Trading System Fairness

John Crackett, IT Specialist, BTA Consulting



It is said that those who do not learn from the mistakes of history are destined to repeat them. There have been many lessons learnt during the establishment of the world's financial markets that must not be forgotten. This article is concerned with remembering only one of them - the need to offer the same service to every participant in order to provide a level playing field; herein referred to as 'Democracy'. The principles of Democracy apply to both trade and post-trade services but the focus here is very much on participants' ability to trade.

So how might Democracy be defined? When equipping its trading floor, a large European Exchange known to the author took great pains to ensure that the market-data system chosen to pipe real-time prices around its pits and booths was democratic, as this was an important stimulus for trading activity. Specifically, the time difference between the first floor screen to show any price update and the last floor screen to show the same update for any price at any time, had to be less than 200ms. This was felt to be the limit of floor staff's perception and reaction. Considerable effort was expended to achieve this - the architecture of candidate systems was analysed, and tests performed using the freeze-frame and single-step capabilities of video cameras to prove that updates took place within 200ms.

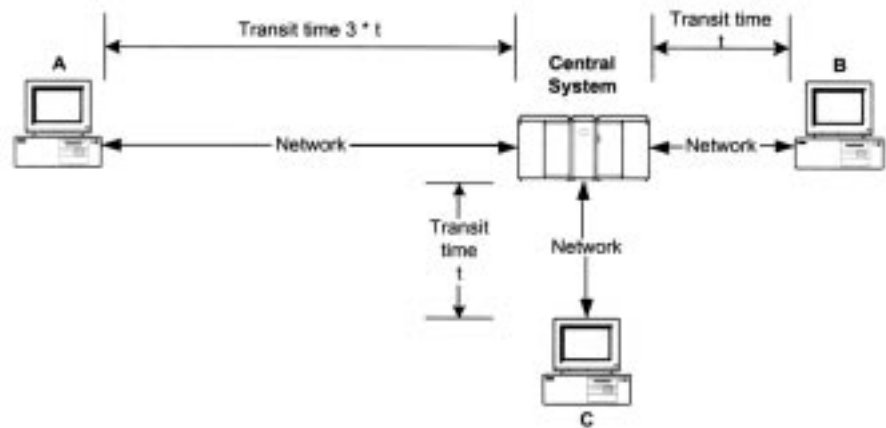
Contemporary electronic trading systems typically allow machines to participate in the market via Application Programming Interfaces (API). These machines participate by monitoring prices, using heuristic algorithms, adjusting quotes and placing orders on behalf of their owners. When dealing with data pumped into and out of an API, a machine's perceptive and reactive abilities are several orders of magnitude more finely tuned than humans'. Following the

example above, a trading system capable of 50 transactions per second, whether it's at the centre of the market matching orders or the edge of the market placing orders, can do 10 such transactions in 200ms. Whatever the arguments for and against machines participating in financial markets, it seems their existence drives up the need for democracy, and does not remove it. So how may a contemporary global trading system be undemocratic? As an illustration, a simple system is shown in the figure.

Assuming C places an order on the system that is highly desirable to A and B. The order takes time t to pass through the network from C to the central system. The system passes a notification of the order to A and B simultaneously. The notification takes time t to reach B but $3t$ to reach A, either because A is further away, or because A's order routing mechanism is slower. Assuming both A and B can perceive the notification, recognise it as desirable, and submit the opposing order to the central system in the same time, B will always win. In fact, assuming B could read the notification and input his order in less than time t

the phenomenon is clear. Without explicit correction, network delays lower the quality of service experienced by 'distant' participants, and, in practise these delays can be in excess of 200ms. Additionally, if one considers the market for any security as a unified whole under the same regulatory umbrella, arguably that market should treat each client's order democratically. In situations where there are multiple liquidity pools, this may not be the case. For example, an order placed on an ECN but then routed to the home market is likely to be executed in price/time priority at the time it arrived at the home market. This may be significantly after the time it was actually submitted by the participant - effectively extending the time, t , in our example above, and exacerbating the potential for undemocratic execution. In the 1990 IOSCO report 'Principles for the Oversight of Screen-Based Trading' states:

"The system should be designed to ensure the equitable availability of accurate and timely trade information to all system participants and the system sponsor should be able to describe to the relevant regulatory



(as may be achievable if B were a machine), the trade would be made before A saw the notification of C's order. Much the same as an astronomer watching a distant star go nova, A could never participate in the event, because it is over before A sees it. In certain circumstances, 'distant' participants (in network terms) are therefore less likely to be able to execute their orders at their desired price level. To them, the market may be perceived to be less liquid than to 'near' participants. This is clearly a dramatic simplification. Arguably, any participant who wishes to deal at a particular price should already have an order in the market. However,

authorities the processing, prioritisation, and display of quotations within the system.

And goes on:

"From a technical perspective, the system should be designed to operate in a manner which is equitable to all market participants and any differences in treatment among classes of participants should be identified."

In today's markets is democracy still relevant? BTA is researching this question, and comments, inquiries, and criticisms are invited. Contact the author at:

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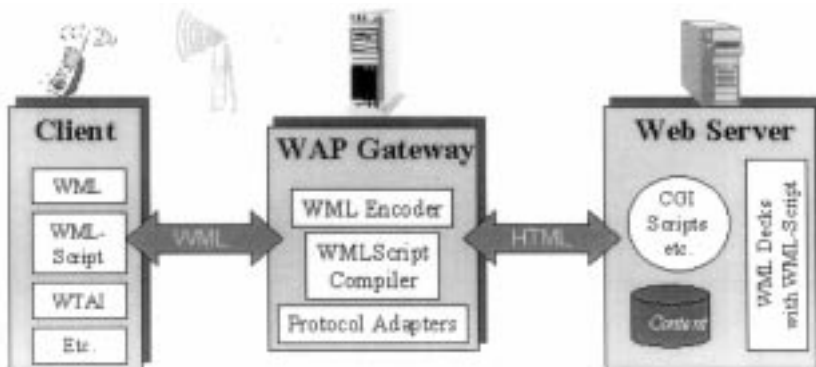
WAP - the Bridge to a Wireless World

Alessandro Rabbiosi, Technology Consultant, BTA Consulting



Imagine a world where inter-country communication did not exist. A world where different cultures lived in an isolation to the social, technological and scientific advances of their neighbours. Such a world would not be a fertile place for development and innovation -

digital wireless devices such as mobile phones, pagers, two-way radios, smart phones and communicators are designed according to the rules and regulations of the WAP protocol. Mobile devices contain less powerful processors, less memory, smaller screens, reduced power capacity and have unreliable connection stability. WAP was developed taking all these factors into consideration. The protocol provides a common language to connect in a secure and fast online method with internet services, information and users. An important characteristic of WAP is that it enables location-based services; this means that the service provider can determine the mobile user's location. This ability to determine a user's whereabouts, will enable a new range of services targeted



progress would be painstakingly slow. Without WAP (Wireless Application Protocol), the global wireless internet industry would be similar; a large number of companies and organisations would produce wireless devices which would only be able to communicate with products from the same company.

The Wireless Application Protocol is an open, global specification that empowers mobile users with wireless internet devices to easily access and interact with information and services instantly. It is a set of rules that was conceived as a result of the convergence between the two fastest growing industries on the planet - the internet and mobile telecommunications. Major participants in these industries agreed that in order for their devices to be capable of interacting they must all speak the same language - WAP. This is a universal open language conceived by over 400 companies cooperating in a non-profit organisation that administers the worldwide WAP specification process (the wap forum).

In essence, WAP formats web pages to enable mobile devices to read them. The software and hardware of handheld

at customising information according to locality. Perhaps we will begin to see other industries taking advantage of this emerging infrastructure. Security and surveillance could be improved with detection devices which use cellular localisation methods - a cheaper alternative to the satellite based GPS system. Future versions of the specifications incorporate push technology, colour, and 'always on' capability in order to benefit from the larger bandwidth provided in 3rd generation licenses and new methods of compacting data over existing GSM networks.

Surely such a fast growing, lucrative industry will foster alternatives to WAP? Strangely this is not so. The only current alternative is I-Mode, a proprietary based protocol developed by NTT DoCoMo of Japan. I-Mode has taken Japan by storm - launched in February last year, the service now has about 3.5 million subscribers. This success has created a network of partners who have in turn created over 15,000 sites. I-mode supports continuous internet access, colour and animated gifs; thus it appears to be the winning formula. However, unlike WAP, which was

conceived through the consensus of over 250 companies, I-Mode is the product of just one company. Therefore, although the Japanese solution is currently more technically advanced, participants of the wireless industry will embrace an industry wide standard more willingly. Thus the increasing number of WAP products will have a snowball effect and the number of WAP enabled mobile apparatuses will continue to grow. This in turn will encourage developers and industry participants to continue enhancing their products and services in accordance with the WAP standards. Wireless Application Protocol may not be the protagonist leading us through to the final phase of an emerging digital wireless world; it is however, the important enabler of the first stages of the process. In order to capitalise on the capabilities of next generation mobile networks it will have to evolve. This is only the beginning, but those who create services targeting mobility needs will become the customers' champion, and not those who champion a technological protocol. WAP is just the unlocking of the first door to true mobility services - an essential bridge launching the mobile internet into the future.

WAP is a set of rules which translates internet language (HTTP and HTML) into a wireless internet language (WTP, WSP and WAE or WAP)

NEW PROJECTS AT

bta

SINCE MAY 2000

- Alpha Bank, Greece - creating a second generation e-banking strategy for this major Greek retail bank
- Drafting the trading rules for a new trading product/order book for a major American investment bank
- Strategic study for a major global investment bank, covering the different European execution centres in terms of functionality and technology
- International strategy for a new cross border market
- Service Level Agreement for global bond market
- European operations strategy for a major European investment bank