

BANGO

SOFTWARE AND COMPUTER SERVICES

6 February 2020

BGO.L

110p

Market Cap: £78.1m

SHARE PRICE (p)



12m high/low 151p/77p

Source: LSE Data

KEY DATA

Net (Debt)/Cash	£3.5m
Enterprise value	£74.6m
Index/market	AIM
Next news	FY19 results, Mar-20
Shares in Issue (m)	70.7
Executive Chair	Ray Anderson
Chief Executive	Paul Larbey
Finance Director	Carolyn Rand

COMPANY DESCRIPTION

Bango links global merchants with payment partners from Africa to the Americas.

www.bango.com

BANGO IS A RESEARCH CLIENT OF PROGRESSIVE

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Expanding the ecosystem to drive growth

This note aims to summarise the information delivered at Bango's recent Strategy Day, and to analyse the key messages. Our analysis focuses on three areas: the ongoing delivery of the virtuous circle strategy; the growing importance of data to the group - monetising the Bango "Data Mountain"; and platform expansion as a driver of future growth. Overall, in our view the Strategy Day reassures on the group's ability to achieve its goals, and we re-iterate our forecasts following the event.

- The virtuous circle strategy continues to deliver:** Bango has deployed and operates a secure, trusted, global mobile commerce platform. With strong synergies between mobile payments and data monetization, the Bango strategy creates (an iterative) virtuous circle. Increasing the subscriber base generates greater payment volumes. This generates more payment data, which merchants can use to market more effectively, which then attracts more paying customers. With the key End User Spend ("EUS") metric reaching £1.1bn in 2019, having doubled in each of the past five years, we believe there is solid evidence that the virtuous circle strategy continues to deliver.
- Monetising the data mountain:** The Bango Platform generates payment insights from across millions of paying customers. By allowing clients to target marketing activities at high-value customers, Bango Audiences have been shown to deliver up to 9x improvement on the effectiveness of app-developer marketing results. It also generates additional revenue streams for ARPU hungry Mobile Network Operators ("MNOs"). Data revenues now contribute a quarter of group turnover (FY 2019), in our view demonstrating management's ability to capture emerging growth opportunities in the segment.
- Platform expansion expected to drive further growth:** In our view commentary delivered at the 2020 Strategy Day reassures on the group's ability to deliver its growth targets. To paraphrase Executive Chair Ray Anderson – "The more participants that use a platform, the more valuable it becomes." The combination of 1) growth in end-users, 2) new payment routes, 3) more merchants joining the platform and 4) increased volumes of customer insight data have driven impressive growth in the business over the past five years. With the platform seeing increasing momentum in all four growth drivers and highlighting our expectation that EUS will double once again in 2020, we continue to believe that Bango's growth prospects remain bright.

FYE DEC (£M)	2016	2017	2018	2019E	2020E
EUS (Non-GAAP)	132.3	271.4	558.2	1,143.7	2,287.3
Revenue	2.6	4.2	6.6	9.3	14.2
Adj EBITDA	-2.4	-1.6	-0.9	0.4	2.9
Fully adj PBT	-4.1	-3.6	-2.9	-1.8	0.6
Fully adj EPS	-6.3	-5.5	-4.2	-2.5	0.8
EV/EBITDA	-30.8x	-47.6x	-86.0x	172.4x	25.9x
PER	N/A	N/A	N/A	N/A	130.5x

Source: Company Information and Progressive Equity Research estimates

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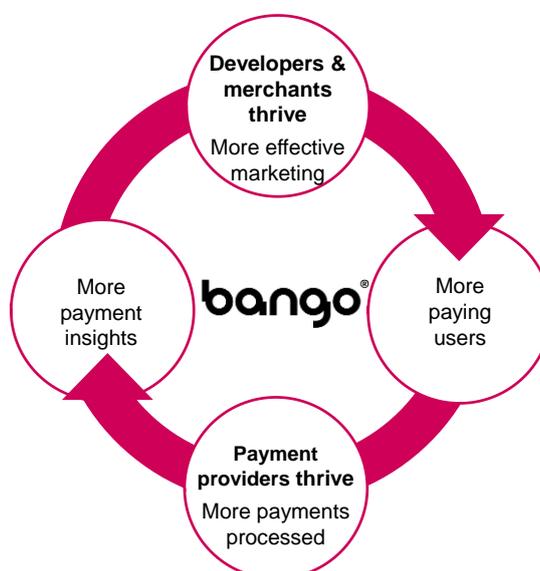
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The virtuous circle strategy continues to deliver

A recap on the virtuous circle

Bango has deployed and operates a secure, trusted, global mobile commerce platform, designed to ensure that payment can be collected for any content or service, sold from any internet enabled device, using any alternative payment method. The business connects some of the world's leading online merchants such as Amazon, Google, Microsoft, and Spotify enabling them to offer payment methods such as Direct Carrier Billing (“DCB”) to subscribers on the world’s biggest telecoms operators such as AT&T, NTT DoCoMo, Telefonica, Verizon and Vodafone. The group’s strategy aims to enable both merchants and payment providers (particularly Mobile Network Operators - “MNOs”) to thrive and is summarised in the following chart.

The virtuous circle strategy



Source: Company Data

In simple terms, growing the end-user base attracts more merchants to the platform which drives increased payment and data volumes. This is an iterative, circular process – hence the virtuous circle.

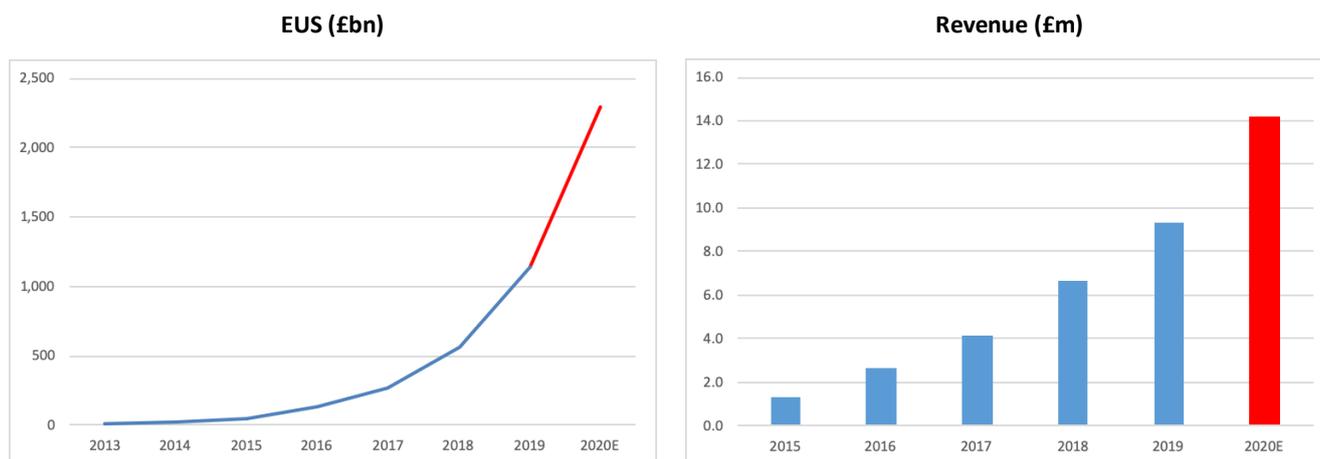
By serving the industry leaders, the Bango Platform processes many millions of transactions every year and serves millions of end-users worldwide. As a result, the platform generates vast amounts of data on consumer payment behaviour, with much of it providing unique customer insight.

The integration of technology from Audiens SRL, a Customer Data Platform, to the Bango Platform in 2018, accelerated the launch of the data monetization business, supercharging the virtuous circle and providing a platform for the group to extend its data offering beyond the traditional MNO client group.

Solid evidence of delivery

We believe the growth delivered in both EUS and revenue over the past five years demonstrates that the virtuous circle strategy continues to deliver. Performance of both metrics is summarised in the following charts.

Bango – EUS and revenues



Source: Company Data

In the December 2019 trading update, EUS was confirmed as reaching £1.1bn in 2019. To put that figure in context, by the end of 2019 Bango was processing a similar volume of EUS in one week as was processed during the entire 2014 financial year.

EUS has now doubled in each of the past five years. We expect 2020 to continue the trend. Expansion is being driven by a combination of growth in users, payment routes, merchants and customer insight data volumes. Each of those four drivers will be further discussed in the following section of this report. Revenues grew 7x between 2015 and 2019. Revenue is not expected to grow at the same rate as End User Spend for two main reasons:

- Bango is signing larger DCB deals. Because the cost of operating the platform to process these large volumes is fixed, so there is no additional cost to deliver these deals, revenue is effectively 100% margin irrespective of the processing fee as a percentage of End User Spend. Bango can therefore afford to charge lower fees for large volumes.
- Over time, the DCB mix has changed – it now includes payment for physical goods. Physical goods EUS is bigger than for digital goods, because the typical “checkout” value is higher than for digital goods. However, margins to merchants selling physical goods are higher than for digital goods, and Bango is able to offer highly competitive fees to keep processing costs low for physical goods merchants.

A further indicator of success is the reported opex level. Whilst EUS and revenue have both reported notable growth, we estimate the cost of operating the Bango Platform has remained between £5- 6m annually between 2013 and 2019, demonstrating the scalability of the operation and the success of the investments Bango has made in R&D over the years.

Leveraging the Bango “Data Mountain”

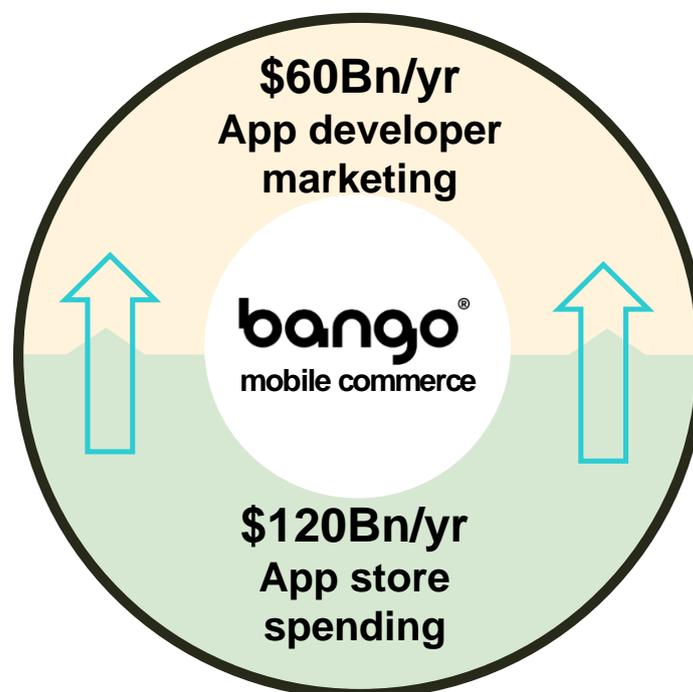
To quote software giant Adobe, “Nothing is more powerful today than data¹” [as a core element of the marketing toolkit]. Entrepreneur (and multi-billionaire) Mark Cuban claims that “Data is the New Gold².” In our view the Bango management team has long understood the value of the data generated by the platform. Indeed, discussions on data monetisation have been a prominent feature of Bango Strategy Days in previous years. However, the 2020 event provided greater granularity on the mechanics of how the Bango Marketplace proposition adds significant value to customers.

Bango processes millions of transactions for millions of end users every year – gaining significant insight into their purchasing behaviour patterns. Historically, Bango leveraged the value of this data via the Bango Dashboard and Bango Boost tools, which are built into the platform. These were supplied free-of-charge to MNO customers, with the value to Bango being realised by increased EUS from MNOs use of the tools. Leveraging the group’s understanding of the value of data to MNOs, management identified app developers as a significant growth opportunity.

Significant opportunities in data monetisation

The following chart quantifies Bango’s initial areas of focus for data monetisation, followed by analysis of the respective opportunities.

Multi-billion-dollar market opportunities



Source: Company information

¹ <https://theblog.adobe.com/get-ready-data-driven-future/>

² <https://www.credit-suisse.com/about-us-news/en/articles/news-and-expertise/mark-cuban-data-is-the-new-gold-201706.html>

By Q4 2019, there were around 5.6m apps available in the four major app stores³, with around 67% of those in the stores to which Bango provides DCB connectivity (Google Play, Microsoft, Amazon).

As the graphic demonstrates, both verticals are large in size, and both are reporting impressive growth. Industry sources estimate global app advertising spend at \$64bn⁴. According to industry analysts App Annie (State of Mobile 2020 report), 2019 saw a record number of mobile downloads – 204bn, with \$120bn spent on apps, subscriptions and other in-app spending during the year⁵ - 2.1x the 2016 level. Note the \$120bn figure excludes direct-to-consumer streaming media delivered outside of app stores.

We believe there are many verticals which would benefit from the application of Bango’s payment insight technology. The group started with the app developer segment due to the strong overlap with the existing operations. However, the insights provided by the platform are equally beneficial to numerous other sectors.

Leveraging data

As summarised in the following chart, Bango’s vision is to revolutionise mobile commerce.

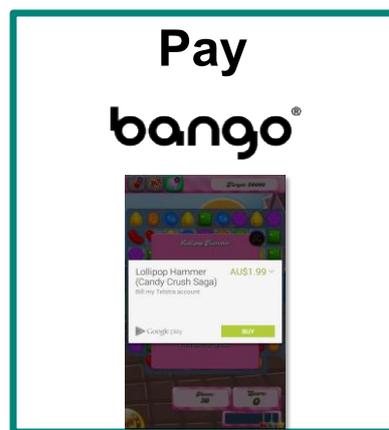
The Bango vision to revolutionise mobile commerce



Market based on what people search for



Market based on what people like



Market based on what people pay for

Source: Company information

- Google monetised online search by creating advertisements which were directly targeted on the user’s search and browsing history.
- Facebook monetised consumer preferences. The user receives directly- targeted advertisements based on expressing a positive view on an organisation, product or service.
- The Bango Platform captures both payment data and purchasing data. Bango Audiences enable advertisers to market straight to paying users.

³ <https://www.statista.com/statistics/276623/number-of-apps-available-in-leading-app-stores/>

⁴ <https://www.appsflyer.com/blog/apac-app-install-ad-spend-predictions/>

⁵ <https://techcrunch.com/2020/01/15/app-stores-saw-record-204-billion-app-downloads-in-2019-consumer-spend-of-120-billion/>

Marketing spend is a major cost for developers

Industry sources estimate around a third of mobile app budgets are spent on marketing⁶. App developers want to attract high-lifetime-value customers, at the lowest possible cost. Leveraging the 2018 investment in Audiens SRL, Bango has created Bango Marketplace, containing audiences of paying users (Bango Audiences) which app developers can use to target their campaigns to materially reduce the costs of acquiring paying users, thereby allowing developers to maximise ROI from marketing spend. In a highly targeted fashion, Bango Audiences allow clients to target advertisements into Facebook feeds of users with a history of paying in apps, so that the percentage of paying customers acquired through these campaigns is maximized.

The following graphic outlines some of the key customer insight data collected by the Bango Platform.

Bango – Audience characteristics

Bango Audience characteristics include:

Buying behavior:

- Users that pay
- How much they spend
- What content they buy
- How often they buy

High value users:

- Top spenders
- Frequent spenders
- Active paying users



Source: Company information

As the chart demonstrates, the platform collects customer insight data that is intrinsically valuable for marketing purposes. Having processed over £1bn of EUS during 2019, the platform demonstrably collects voluminous quantities of it.

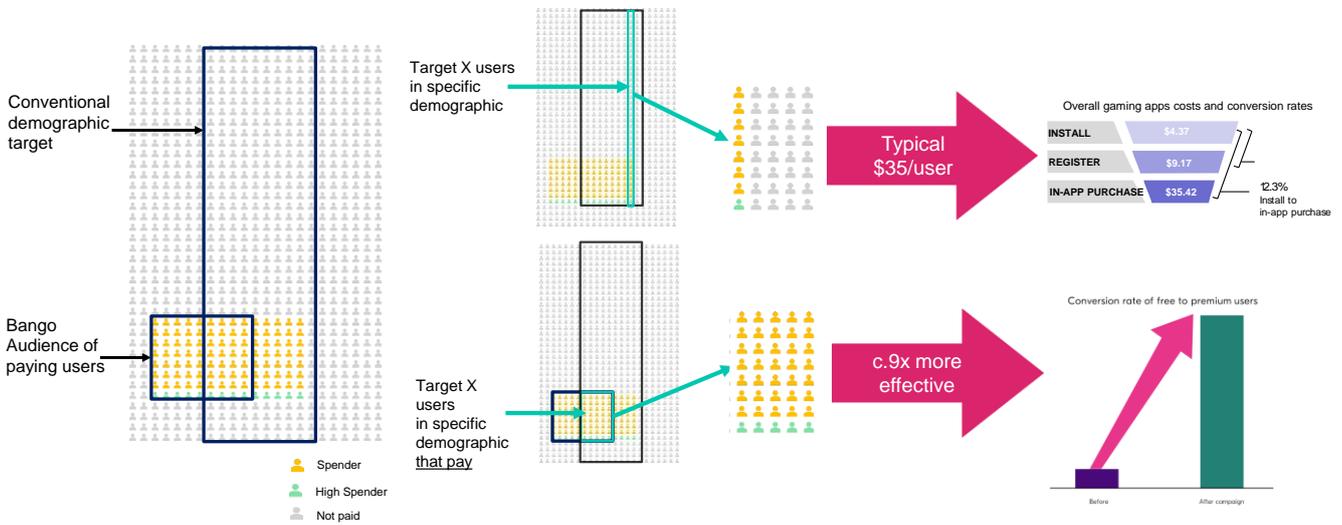
Unlike other payment mechanisms, the Bango Platform is somewhat unique in that it captures both payment data and purchasing data. Put simply, Bango technology knows who pays and what they purchased. We believe this to be a key competitive advantage.

Industry sources estimate that the average marketing cost to get a user to install an app is \$4 and of those installing, around 10% will go on to make a payment. The cost to acquire a paying customer is therefore around \$35⁷. The following graphic demonstrates how using the Bango Audiences can significantly reduce this cost.

⁶ <https://themanifest.com/app-development/why-marketing-critical-mobile-app-success>

⁷ <https://info.liftoff.io/2020-mobile-gaming-apps-report>

Bango Audiences increase marketing effectiveness



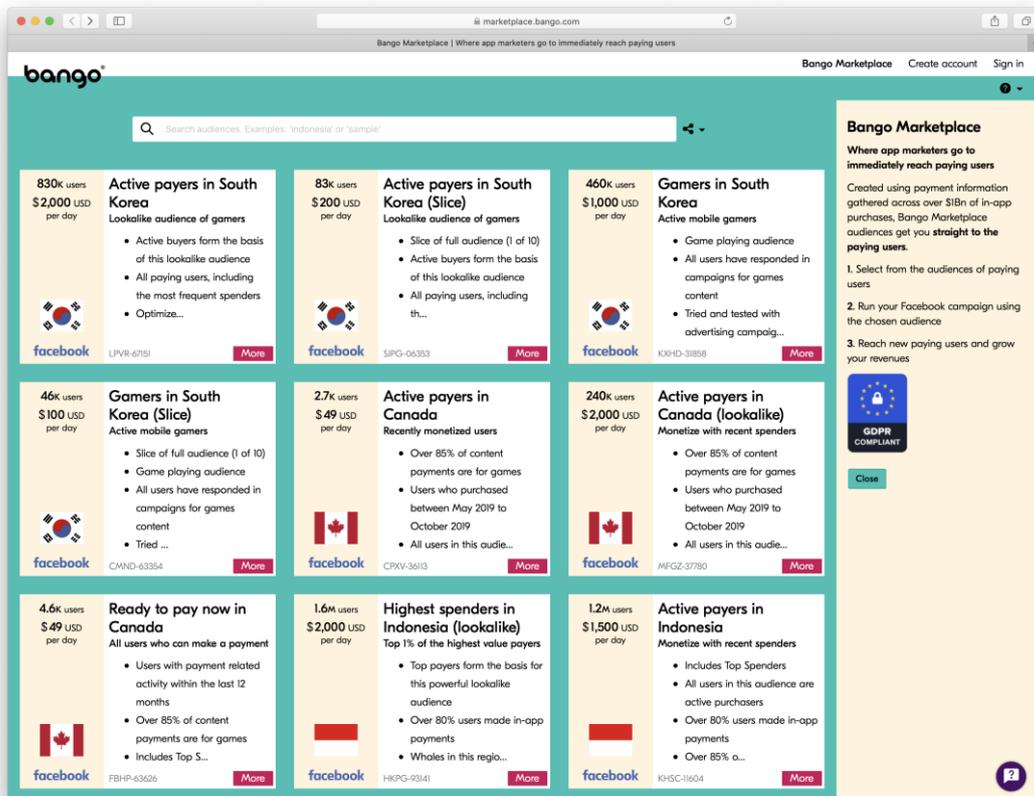
Source: Company information

By overlaying payment and purchasing data onto a campaign target audience, Bango Audiences allows app developers to market directly to new high-value (paying) customers. The company estimate that marketing effectiveness is up to 9x greater from using Bango Audiences than from traditional, demographic- based advertising.

The graphics overleaf contain sample screenshots from Bango Marketplace. Using a standard web browser, clients can log on to <https://marketplace.bango.com> and simply click the audience they wish to rent use of – note Bango does not sell any data, and the advertiser never actually touches the Bango Audience. Audiences are billed on a time-limited basis, with pricing dependent on the size and anticipated value of the audience. Audiences are priced between \$100-\$2000 per day.

Although Bango Audiences are highly attractive to merchants, they are also attractive to MNOs. As long- term analysts of the global mobile industry, we contend that MNOs are on a continual quest for growth in ARPU. In return for the supply of opted-in, regulatory-compliant data to Bango, MNOs receive a fee. Data supply to Bango therefore represents an incremental revenue stream for MNOs, at low cost. Note, all data used in Bango Audiences is anonymised and aggregated.

Bango Audiences – sample screenshot



Source: Company information

Sample Bango Audience

Audience details ZGNX-60722



Active subscribers in the UK
Subscribed to streaming services

UK

2,000,000 users

Facebook Audience

Pre-order

\$1,500 USD/day

- Subscribing to one or more premium services
- Music or video lovers
- Currently subscribing to streaming media

Created from a source audience of users making regular subscription payments. The audience is produced by finding the 5% of users most similar to the source audience. The percentage of users can be adjusted to optimize performance.

Source: Company information

Platform expansion to drive further growth

In our view Bango has gained a solid track record of growth, as evidenced by the doubling of EUS over each of the past five years. As noted on page one, we expect EUS to double once again in the current financial year. With the metric hitting £1bn FY 2019A, in 2020E Bango will need to deliver more EUS than the five years from 2013 to 2018 combined. This may appear a somewhat challenging target. However, we believe commentary from the 2020 Strategy Day will assuage concerns on the group’s ability to meet it.

The following graphic pictorially demonstrates the group’s key growth drivers:

Bango – growth drivers



Source: Company information

To paraphrase public comments from Executive Chair Ray Anderson – “the more participants that use a platform, the more valuable it becomes.” As the chart demonstrates, management has identified four key growth drivers to expand the Bango Platform. Below we present analysis of the ongoing momentum in each segment:

More users

- At the 2020 strategy day, Bango reported 70% growth in unique users paying via DCB in the last twelve months.
- As we noted in a recent research report⁸, Bango’s resale and bundling technology has a reach of over 2bn subscribers. New platform technology (bundling and resale) allows an additional 3bn pre-paid subscribers access to subscription-bundled services (e.g. Amazon Prime Video in India).
- Bango expects to launch an update to the Bango Boost product during 2020. This is expected to drive increased MNO customer growth.

More routes

- Bango launched a number of new DCB and resale routes during H1 2019 – India, Philippines, New Zealand UAE, Chile, Singapore and Spain. Bango has also announced new DCB routes with Google including Morocco and Myanmar.

⁸ Bango Resale - Enabling OTT Media Players to Acquire Billions of Customers. Progressive Equity Research, 22 October 2019.

The Morocco route is a particular highlight – to date it has been one of the fastest growing of any new route launch.

- Although DCB via MNOs remains a Bango core strength, the platform has been extended to fixed-line carriers and Pay TV providers. In addition to other alternative payment mechanisms such as mobile wallets.
- Bango is expanding the scope of its resale and bundling technology, so that merchants can collaborate *with each other* to assemble high value, bundled offers of their products and services.

More merchants

- In August 2019, Bango announced a partnership with streaming music provider Spotify. With a current subscriber base in excess of 248m subscribers (113m paying) Spotify⁹ is the global leader in streaming music. With existing relationships with Amazon (Prime Video and Twitch Prime) and Pandora, Bango is clearly gaining traction in the streaming media space – and with the bluest-chip partners.
- This was followed by the announcement of DCB for YouTube TV in November 2019. In addition to adding another major streaming media client to the platform, this further deepens the relationship with key client Google.
- Bango has also announced an IoT project for road-charging in the USA, a new offering in a new vertical. This represents Bango's first entry into the \$7bn tolling market and we believe can be extended to other territories.
- Although an extension of an existing client relationship. The (global) relationship with Amazon was also expanded during H1 2019, to new markets and with new products including Amazon Prime Now and Twitch Prime, indicating the solidity of this global relationship with Bango.

More insights

- At the 2020 Strategy Day, management revealed that Bango Boost has highlighted additional EUS of £100m during 2020. This represents incremental revenue to clients, and at c4% of our £2bn EUS forecast 2020E, a material contribution to business performance.
- Management also confirmed that Bango insights provide a 15% increase in subscription conversions.
- Bango's analytics suite now allows merchants to maximise subscription renewals. Applying Bango's data analytics capabilities to streaming media services identifies the likelihood that a customer will pay for a subscription (for example after the free period of use expires), how much they typically spend, when is the best time to trigger the renewal of a subscription from an affordability perspective, etc.

⁹ <https://newsroom.spotify.com/company-info/>

Summary and conclusion

Overall, we believe Bango's 2020 Strategy Day reassured on the group's strategic capabilities and ability to deliver on its strong growth targets. In summary, we draw the following key conclusions from the event:

- Bango's virtuous circle strategy continues to deliver – as evidenced by sustained growth in EUS and revenues at low/ near-zero incremental cost.
- With the business now processing over £1bn of annual EUS, the Bango "Data Mountain" is both vast and growing. The group has a blue-chip client MNO and app developer client base and a strong product offering with Bango Audiences.

In our view the business therefore remains well placed to capitalise on the data monetisation opportunity.

Bango disclosed zero data revenues FY 2017. In two years, albeit partly driven by the Audiens acquisition, data has gone from zero to contributing almost a quarter of the group's turnover (FY 2019). We believe that this is a positive early demonstration of management's ability to drive growth in the data business.

- Sustaining the historic annual doubling of EUS may appear challenging given the scale of the business. The ability of Bango to achieve this is underpinned by the four key growth drivers (i.e. more users, payment routes, merchants and insight data) which should improve confidence in the group's ability to deliver on its published EUS growth target and our forecast financial performance.

Financial Summary: Bango

Year end: December (£m unless shown)

	2016	2017	2018	2019E	2020E
PROFIT & LOSS					
EUS (Non-GAAP)	132.3	271.4	558.2	1,143.7	2,287.3
Revenue	2.6	4.2	6.6	9.3	14.2
Adj EBITDA	(2.4)	(1.6)	(0.9)	0.4	2.9
Reported PBT	(4.7)	(3.9)	(3.6)	(2.6)	0.3
Fully adj PBT	(4.1)	(3.6)	(2.9)	(1.8)	0.6
NOPAT	(2.9)	(2.0)	(1.8)	(0.9)	2.0
Reported EPS	(6.8)	(5.3)	(4.0)	(2.3)	1.8
Fully adj EPS	(6.3)	(5.5)	(4.2)	(2.5)	0.8
Dividend per share	0.0	0.0	0.0	0.0	0.0
CASH FLOW & BALANCE SHEET					
Operating cash flow	(2.6)	(0.7)	(2.3)	0.4	0.8
Free Cash flow	(6.0)	(2.2)	(4.4)	(0.8)	0.1
FCF per share	(9.2)	(3.4)	(6.3)	(1.2)	0.1
Acquisitions	0.0	0.0	(1.8)	(0.4)	(0.4)
Disposals	0.0	0.0	0.0	0.0	0.0
Shares issued	0.1	1.2	5.2	0.0	0.0
Currency effects	(0.1)	0.0	0.0	0.0	0.0
Net cash flow	(6.2)	(0.8)	(1.1)	(1.2)	(0.4)
Cash & equivalents	5.7	4.8	3.8	2.5	2.2
Net (Debt)/Cash	5.6	4.6	3.5	2.3	1.9
NAV AND RETURNS					
Net asset value	12.4	10.7	16.0	9.8	14.8
NAV/share	19.1	16.2	22.9	14.0	21.2
Net Tangible Asset Value	6.3	4.6	4.0	1.6	4.6
NTAV/share	9.7	7.1	5.8	2.3	6.5
Average equity	14.1	11.5	13.3	12.9	12.3
Post-tax ROE (%)	(31.2%)	(30.3%)	(20.8%)	(12.6%)	10.4%
METRICS					
EUS growth	196.1%	105.1%	105.7%	104.9%	100.0%
Revenue growth	101.8%	58.2%	59.4%	41.1%	51.8%
Adj EBITDA growth	(22.9%)	(35.3%)	(44.7%)	(149.9%)	566.5%
Adj PBT growth	(18.6%)	(12.0%)	(19.6%)	(39.2%)	(133.5%)
Adj EPS growth	(33.0%)	(13.8%)	(23.9%)	(39.2%)	(133.5%)
Dividend growth	N/A	N/A	N/A	N/A	N/A
Margin on EUS	2.0%	1.5%	1.2%	0.8%	0.6%
VALUATION					
EV/Sales	28.4	18.0	11.3	8.0	5.3
EV/EBITDA	-30.8	-47.6	-86.0	172.4	25.9
EV/NOPAT	-25.5	-37.0	-41.2	-83.0	37.1
PER	N/A	N/A	N/A	N/A	130.5
Dividend yield	N/A	N/A	N/A	N/A	N/A
FCF yield	(8.4%)	(3.1%)	(5.7%)	(1.0%)	0.1%

Source: Company information and Progressive Equity Research estimates

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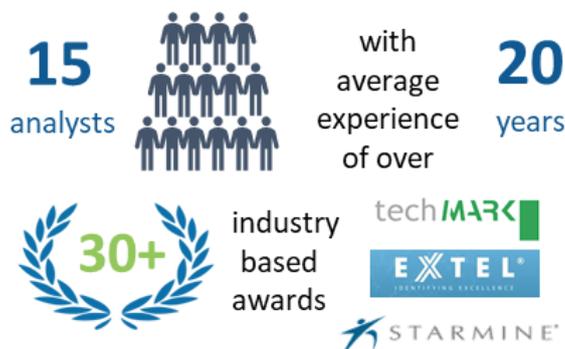
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