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TikTok efficiency & effectiveness in Central Europe

Poland FMCG & Retail case study

by Bartosz Kowalski

About Business Science Warsaw

Business Science Warsaw is a regional advanced analytics hub. Its team is composed of 40 econometricians and data scientists based in Warsaw, Poland. One of its core competencies is providing state-of-the-art. marketing mix modelling (MMM) projects to their global clients under the Economiser brand. It grew from being a research department of a media agency to a key regional player in advanced analytics, serving its EMEA and global clients in diverse markets with the majority being non-EssenceMediacom clients.

40

Econometricians and data scientists on board

$1.2

billion USD annual media budgets covered by our optimisations and recommendations

170

MMM econometric models estimated yearly

Bartosz has over 10 years of experience in delivering Marketing Mix Modelling projects for CPG, retail, automotive, TelCo, eCom and other categories, across 6 continents. He leads the econometrics & data science team in the Business Science Warsaw hub.

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Foreword

TikTok very efficient already.
Effectiveness might come with investment

Jarosław Dejneka
Managing Partner at EssenceMediacom

The dynamic growth of TikTok is evident not only from the perspective of its increasing user base and the time they spend on the platform, but also in terms of the number of campaigns and the questions advertisers have about the effectiveness of this channel.

Based on data from Western European and US markets, we see that TikTok has significant potential in terms of efficiency. However, until now, there has been a lack of evidence on how TikTok performs in the Central European region.

TikTok proves to be an extremely efficient (ROI) media channel also in Central Europe. However, the challenge is the effectiveness from the perspective of scale, which is naturally a consequence of the size of the investment.

The results from this report should facilitate advertisers in making decisions regarding the inclusion of TikTok in their media mix. The question remains open - whether by increasing the investment we will be able to enhance the effect and simultaneously maintain efficiency at a high level?

Steve Lockwood
Head of Client Measurement EUI at TikTok

The work created by Essence Mediacom is an important step forward for the measurement ecosystem in Central Europe and beyond and provides valuable insights for any brand seeking to have the ability to make comprehensive assessments of the performance of their media mix as a collective effort.

At TikTok we are big advocates of Media Mix Modelling, in particular when used as a means of calibration against incrementality measures for individual channel performance impact, and attribution for on-going campaign optimisation. MMM is a privacy safe solution which enables a strategic view of cross channel return, points of diminishing marginal return of media investments, and channels ability to amplify each other via synergies.

For the TikTok results, the study has validated some of key hypothesis - while we are currently fairly underrepresented in many advertisers media plans, there is significant opportunity to scale the impact offered by the platform and the role it plays in the media mix across several verticals

Introduction and method

As an MMM (Marketing Mix Modelling) provider, we have a broad overview of advertisers from 5 continents and multiple categories. We see TikTok becoming a part of media-mix in increasingly many cases. As TikTok in the recent years appears more and more frequently in our Economiser / MMM ROI (Return on Investment) results database and we have more questions from clients experimenting with TikTok who are curious how their results compare to benchmarks, we've decided to look at the results ourselves.

MMM being the gold standard of ROI measurement and media-mix optimization should be the first source to look into when looking for the true return of any marketing activity, specifically TikTok, on offline and online sales. MMM now more broadly adopted across multiple categories and businesses, originated from FMCG/ CPG and omnichannel Retail categories, for which in most markets there are no alternatives when looking at consistent measurement of incrementality across all media & marketing activities. While running 50+ MMM project in our Business Science hub in Warsaw, there's recently a relatively high density of TikTok results in for Western Europe, US and Asia. After a short literature review, we've realized that for the regions mentioned, also, first meta-analysis of TikTok MMM results for CPG started appearing and that their results are very much inline with our own results for these regions.

However, the evidence for TikTok sales performance in CPG & Retail seems scarce for our region of origin, which is Central Europe. In our own client portfolio, the MMM for CE constitutes less than 10% of all MMMs run in 2023, which limits the number of cases for a robust meta-analysis for CE. Moreover, not all our CPG and Retail clients had significant enough investment for an MMM to pick up its effect on sales. With limited number of cases there's also a risk of different ROI (Return on Investment) drivers interfering. Based on our own internal research, but also the ones published by other research agencies, creative quality might significantly impact the cascading choices of media channels in terms of ROI[1], if executed particularly well or wrong for any given media channel.

With these caveats in mind we decided to review the TikTok sales results case by case and present one CPG and one Retail case in CE, while making sure we present representative ones that aren't biased in any way or are not outliers in any way, particularly in terms of TikTok's scale and share in investment, as well as efficiency and effectiveness results. We feel confident with the ones we selected, as they are good representative of the patterns we see in the data we have and also follow certain dynamic that we saw a little earlier in Western Europe.

[1]*Based on our internal resarch and other findings, e.g. [https://www.nielsen.com/insights/2022/executional-roi--drivers-optimize-campaigns-to-maximize-roi/](https://www.nielsen.com/insights/2022/executional-roi-drivers-optimize-campaigns-to-maximize-roi/)*

Efficiency and effectiveness

Among marketing practitioners and measurement specialists, the words effectiveness & efficiency are frequently used, but often refer to different notions. While looking at the sales performance of different marketing activities, we assess them through two lenses: the average return on every $1 spent (ROI - Return on investment, which we call the efficiency and the scale of incremental sales driven, which we call the effectiveness.

Efficiency metric:

$$\text{ROI} = \frac{\text{incremental revenue driven by a marketing activity}}{\text{cost of a marketing activity}}$$

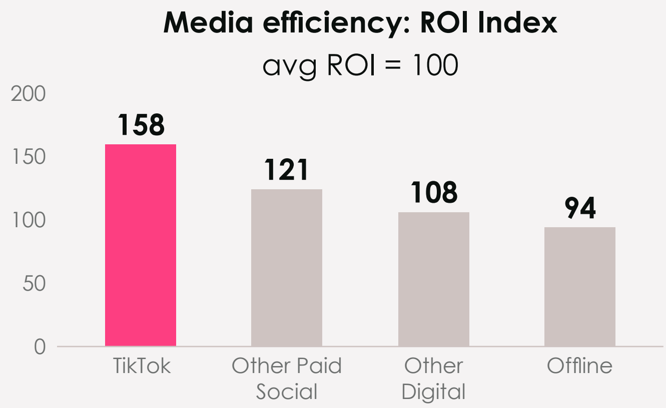
Effectiveness metric: **incremental revenue driven by a marketing activity**

Some MMM projects in the past used to overly focus attention on the efficiency (ROI) only. This led to wrong investment decisions by overly prioritizing the media channels that historically delivered the strongest ROI, but couldn't drive as much scale, as channels with relatively lower ROI, but a leading contribution to sales. As a consequence, some CPG brands in the early 2000s switched to a digital-only strategy too early, as back then the digital channels delivered the higher ROI already, but weren't able to drive as much sales as e.g. TV, yet. Thus, we put equal priority on reporting both: efficiency and effectiveness when reporting the modeling results to our clients and in this case study.

TikTok in FMCG – a case study for Central Europe

TikTok in our FMCG case in Poland 58% more efficient than average media

Our FMCG client decided to run an MMM project with us because despite the large scale it's getting harder for them to further grow, increase penetration, reach new consumers. They also seeked to optimise the media-mix and make sure the squeeze every euro invested to its limit, which leads as to an essential part of every Marketing Mix Modelling project: assessment of media channel performance.



+58%

TikTok ROI higher

Than the average media ROI for the FMCG brand

We indexed the efficiency (ROI) results for both, Retail and FMCG/CPG cases, so that the average and total media ROI equals 100.

In terms of the cascading choices in our Food category case, TikTok is the most efficient (has the highest ROI). It's followed by other Paid Social (which are 21% more efficient than average) and other Digital media. In terms of efficiency, offline media perform the worst with the ROI -6% lower than the average media ROI.

As mentioned, we don't have enough FMCG cases for CE to run meta-analysis, but these result are a very representative for the cases we do have.

Offline media, including TV, still the most effective

For the food brand in questions, offline media, including TV, are still the most effective. Even though their efficiency is slightly below average, they drive over 2/3 of all media-driven sales. This is an amount that probably couldn't be easily and quickly replaced by digital media. Thus, for the FMCG brand in question, offline media still constitute the backbone of its communication.

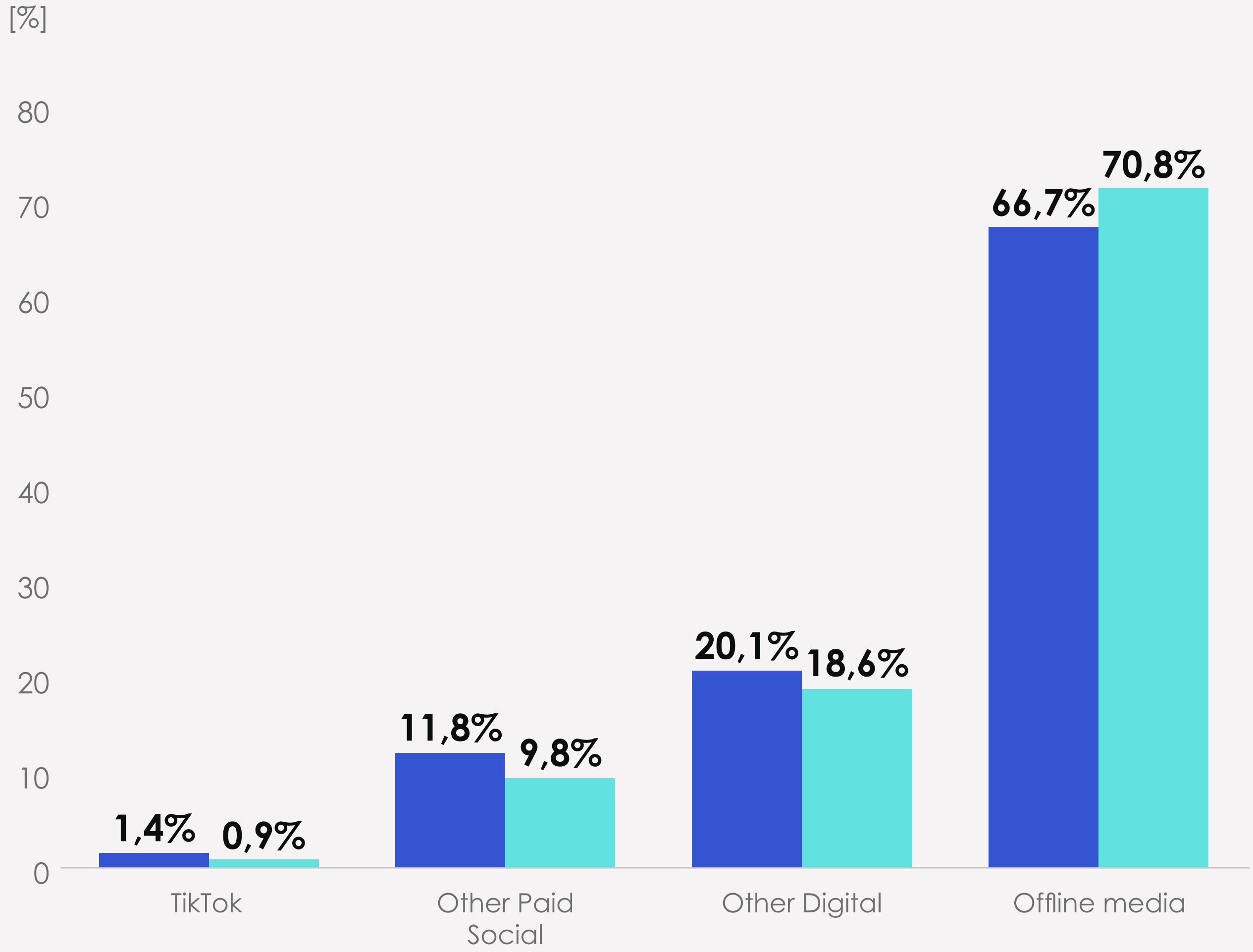
Other digital channels with stronger, yet still limited contribution to sales for our FMCG case in Poland

Other Paid Social channels account almost 12% of all media-driven sales, while the non-Social digital media account for about 20% of media-driven sales. This means that all digital media in our case drive only 33.3% of media-driven sales with 29.3% share in media investment, which is still quite common for all FMCG brands in Central Europe.

TikTok's low contribution to sales caused by low level of investment

As for all the cases globally, not just limited to Central Europe, TikTok constitutes a very limited share in the media mix with about 1% of media investment. Due to its high efficiency it stands for over a half higher share in media-driven sales than its share of spend, but still with 1.4% contribution to media-driven sales, its effectiveness is limited.

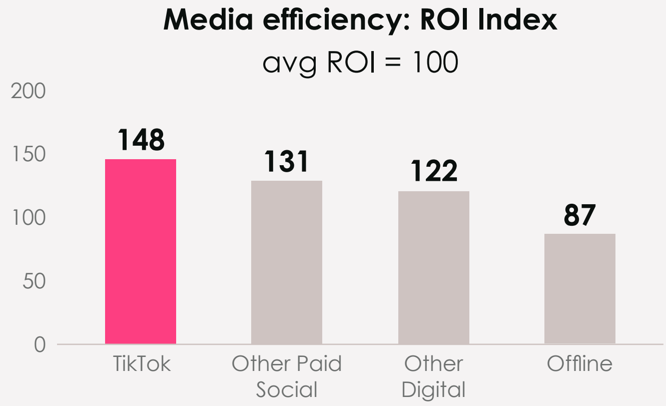
Media effectiveness: % media-driven sales by media channel group vs % investmesnt



TikTok in Retail – a case study for Central Europe

TikTok in our Retail case in Poland 48% more efficient than average media

Our omnichannel retail client has a broad set of marketing activities they can prioritise investment in, such as opening new offline stores, adding more, cheaper or faster shipment options to their online store and many other. This includes paid and non-paid (own CRM-based) communications for which they looked to optimise the intensity and make sure they neither overinvest or discourage their consumers from repurchase due to an overly intensive communication, nor lose an opportunity to drive incremental sales by underinvesting a paid media channel.



+48%

TikTok ROI higher

Than the average media ROI for the Retail brand

In terms of the cascading choices of media channels, our retail case does not differ from the FMCG case very much. TikTok is more efficient than any other group of media channels. It's 48% more efficient than the average for all media. It's followed by other Social media channels that are 31% more efficient than the average.

Other digital channels are behind, but still 22% more efficient than average. The fact that all the retail brands that we model in Central Europe are omnichannel and eCom accounts for an increasing share in total sales might contribute to the fact that offline media are further behind than for the FMCG case, for which offline sales are the vast majority. Offline media on average are 13% less efficient than digital.

Offline media with slightly over half of the media contribution to sales

Offline media constitute almost 2/3 of media spend (64.9% exactly and account for over a half (56.6%) of the media-driven sales.

Offline media have a Lower contributito the sales succes of the brand than in FMCG. They're still predominant, though.

Digital plays a greater role in driving sales for the Retail brand than for the FMCG

Other Digital channels drive about 1/3 of brand's media-driven sales. Overall Digital with the share in spend of 35.% account for as much as 43.4% of all media-driven sales.

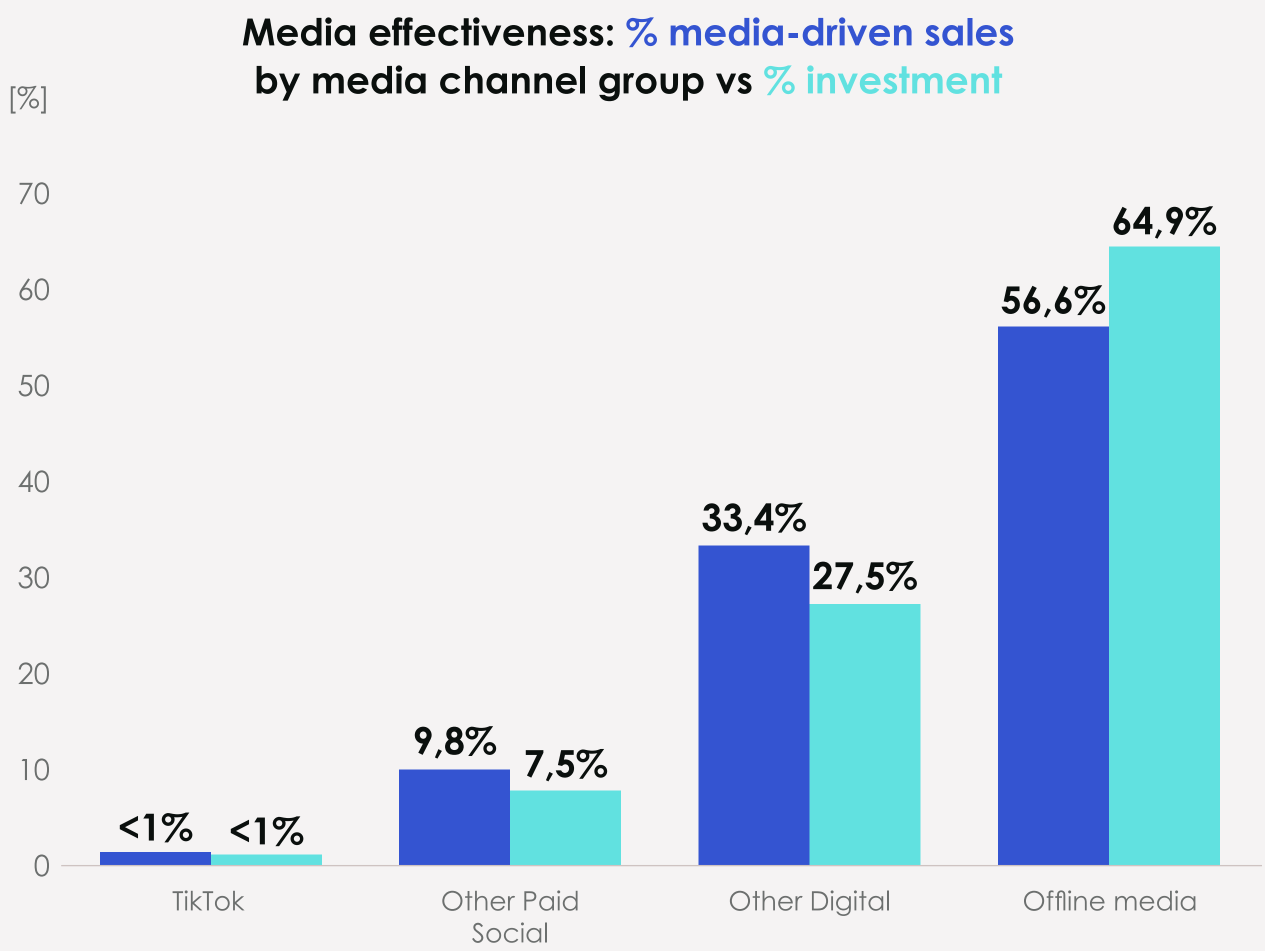
This is partly owed to a significant role of the performance media that are focused mainly on driving eCom sales in the media-mix.

Limited effectiveness of paid social overall

Other paid social channels drive less than 10% of brand's media-driven sales. If we combine it with TikTok, we arrive at the total Social Media contribution of about 10% of all media-driven sales.

Even lower TikTok investment in Retail than in FMCG adequately also resulting in lower contribution to sales

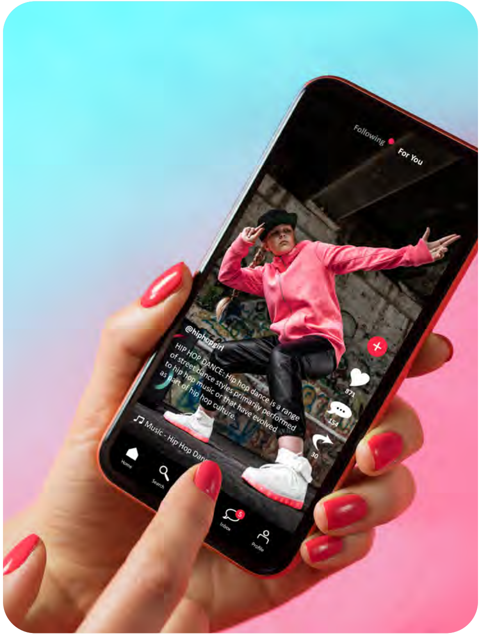
The share of TikTok in media spend of our Retail case is even more limited than in the FMCG case with less than 1% share in media spend. Its effectiveness is also very limited. TikTok accounts for less than 1% of media-driven sales.



Existing knowledge and FMCG context

The efficiency and effectiveness results for the case presented represent the patterns we see in the first cases in Central Europe, but also in other regions. In the table below we compare our results with a similar study for FMCG commissioned to Nielsen.

Both, in our case study and in the analysis commissioned to Nielsen, TikTok might have supported with data pipelines related to advertisers' activities on TikTok, but all other data collection, processing, econometric modeling, analysis and report creation was executed on the MMM vendor side, which is Business Science Warsaw or Nielsen in respective cases.



TikTok efficiency results vs digital media range from +56% to +96% ROI index, while in our results the index vs digital (previously we indexed vs total media ROI) equals +46%, which we'd interpret as being within a similar range, towards the lower band. Overall conclusion is that TikTok seems to consistently outperform other digital channels and very significantly outperforms offline media.

Our FMCG and Retail cases show that at least to some extent this might come from

a. very low share in spend, as it's very hard to hit the diminishing returns with such low investment

b. Many our FMCG and Retail clients are new to TikTok and we measure some of their first activities on the platform. They might be reaching new audiences that they haven't reached, when using other media channels, which drives incremental sales.

TikTok efficiency vs digital media in FMCG by region

Region	TikTok ROI index vs digital media	Source
United Stated	196	Nielsen[2]
UK, Germany, France, Italy and Spain	164	Nielsen[2]
Indonesia, Malaysia and Thailand	163	Nielsen[2]
KSA, UAE and Egypt	156	Nielsen[2]
Central Europe (Poland)	146	Business Science Warsaw

[2] *Source: https://www.tiktok.com/business/en-CA/blog/tiktok-works-ads-drive-business-impact*

The diminishing returns, optimising media-mix and budget scaling

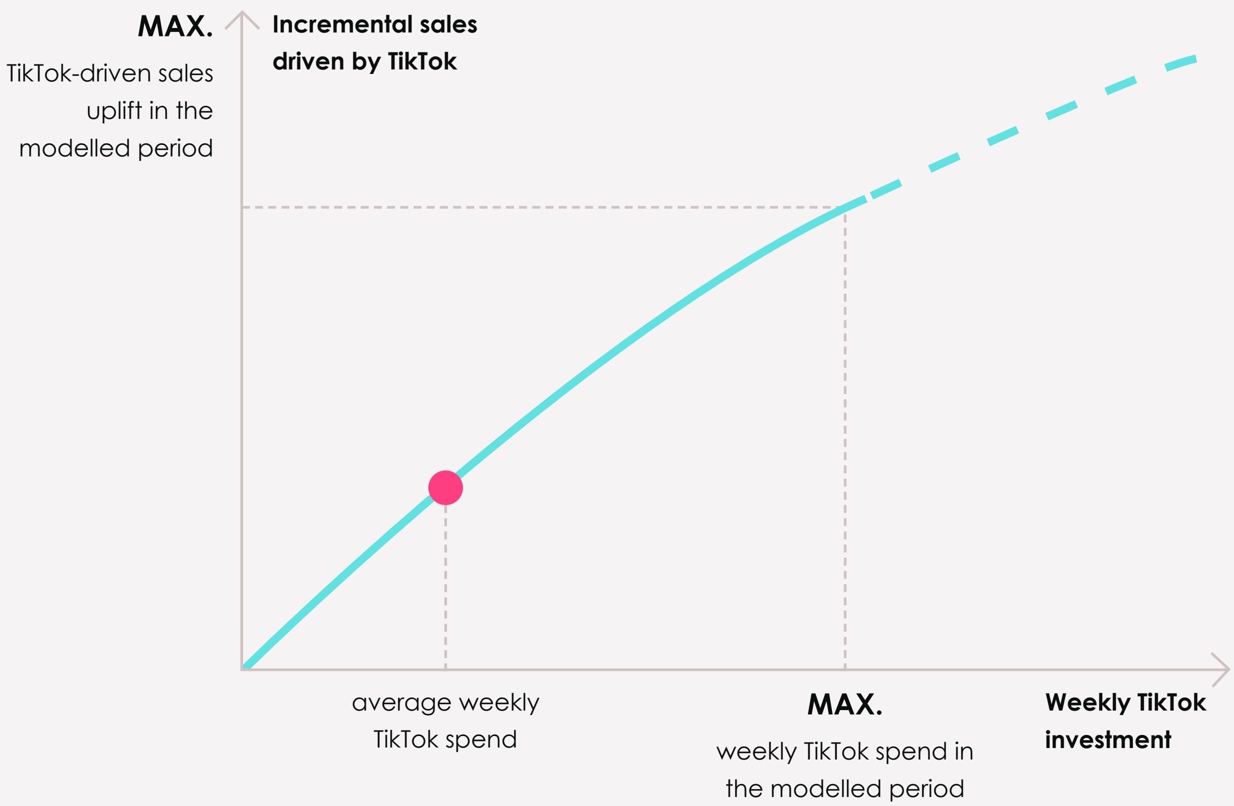
With the low scale of investment in TikTok in our cases, our response curves (response curves describe the relationship between increasing investment in a media channel and incremental sales driven by that channel) do not present any strong diminishing returns. This leads to a conclusion that for FMCG and Retail clients with similar share of TikTok in the media-mix (below 1.5%) it might be recommended to explore further.

Typically for the response curves coming out from our models we avoid recommending spend increases that go beyond +50% (+100% in extreme cases where we have solid benchmarks) of the intensity observed during the modelled period. Moreover, the optimum level is typically specific for any given brand and depends on the quality of creative.

Thus, it's hard to say where the optimum share in media-mix for TikTok is, and, more importantly, how quickly the diminishing returns kick-in and the marginal ROIs and average ROI start equaling the ones for other digital media. But it looks like it doesn't happen eithin the 0%-1.5% share in the media-mix for TikTok.

In the FMCG case TikTok response curve presented in the chart below, definitely the response curve within the range of weekly intensity from the modelled period is close to linear, does not present any diminishing returns and we'd feel save with recommending experimenting with a +50% weekly investment intensity vs the maximum weekly spend during the modelled period

TikTok weekly response curve in the FMCG case



Conclusions

TikTok – icing on the media-mix cake for FMCG & Retail in CE

TikTok in the FMCG & Retail case studies outperforms other media channel groups and performs better than the average for social media in terms of efficiency (ROI).

On the other hand, its share in media-mix is very limited, thus its effectiveness (incremental sales driven), despite the high efficiency, is limited (below 2% of media-driven sales), too.

These both results are representative of the early TikTok MMM results we see for FMCG & Retail in CE.

[…] it would be recommended that FMCG and Retail advertisers increase investment to learn how the diminishing return effects kick-in for TikTok compared to other media

Based on the evidence we have and the very low scale, it's impossible to predict how TikTok would perform if invested at a scale similar to other platforms, as there was no data to estimate the shape of TikTok response curves going multiple Times beyond the historical weekly intensities.

There's no doubt, TikTok benefits from being early on the response curve and it would be recommended that FMCG and Retail advertisers increase investment in order to learn how the diminishing return effects kick-in for TikTok compared to other media channels and also to test the performance of specific, more granular tactics in MMM, as well as learning whether the high efficiency (ROI) is predominantly platform/audience-related, tactics-related, purely caused by its underinvestment or if it's caused by other factors?

Appendix

Media channel definitions

In the case study we compare TikTok results with other media channels:

a. TikTok
b. Other Paid Social
c. Other Digital
d. Offline

The above categories include, but are not limited to, the following, more granular media channels

Other Paid Social	Other Digital	Offline
Facebook	Paid Search	TV
Instagram	Twitch	Print
Pinterest	Influencers	Out-of-Home
Snapchat	Online Video	Cinema
	YouTube	Radio
	Display	
	Audio	

Data used for modeling the 2 cases

Retail case

- Modelled period: 2019-2021
- Based on 1067 data points. Panel structured data (fixed effects estimator): 97 weeks x 11 cross sections (by store type)

FMCG case

- Modelled period: 2020-2022
- Based on 864 data points. Panel structured data (fixed effects estimator): 144 weeks x 6 cross sections (by store type). Sell-out data modelled.

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Thank you