Morgan Stanley

Poor Data Quality-What is The Solution?

Anita Bhardwaj, Data Analyst, Morgan Stanley & Co. International Plc+

Anita.Bhardwaj@morganstanley.com

+44 20 7425 1883

Daniel Singham, Commercial Director, Yonder Data Solutions

Daniel Singham is not a member of Morgan Stanley's Research Department. Unless otherwise indicated, his views are his and may differ from the views of the Morgan Stanley Research Department and from the views of others within Morgan Stanley.

7th May 2025

Morgan Stanley does and seeks to do business with companies covered in Morgan Stanley Research. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of Morgan Stanley Research. Investors should consider Morgan Stanley Research as only a single factor in making their investment decision.

For analyst certification and other important disclosures, refer to the Disclosure Section, located at the end of this report.

+= Analysts employed by non-U.S. affiliates are not registered with FINRA, may not be associated persons of the member and may not be subject to NASD/NYSE restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account.

About AlphaWise, Morgan Stanley Research

Source: Morgan Stanley Brand Centre

- Morgan Stanley is a global financial institution with around 80,000 employees worldwide
- Research offers timely, integrated analysis of companies, sectors, markets and economies, helping clients with critical decisions
- AlphaWise is a small, global team that sits within Research
- The AlphaWise team collaborates with Research Analysts to understand key investment debates, through primary research with decision makers either consumers and professionals
- Our primary research is multi sector, multi country and predominantly ad hoc

About the Presenters

Anita has 30 years of multi-sector, agency and client-side primary research experience

- Agency: Millward Brown (UK), TNS (UK/Spain), Nielsen (UAE)
- Client Side: Fosroc (UAE), Grifols (Spain), Morgan Stanley (UK)

Daniel: 20 years of operations and sales in primary research

- Operational Roles: SSI (Australia), Pure Profile (Australia), Toluna (UK)
- Sales Role: Yonder Data Solutions

Morgan Stanley & Yonder Data Solutions

Multi-sector, multi-country, tracking & ad hoc projects

Examples:

1. **Europe-wide survey tracking consumer behaviour during the pandemic**
   - **10k sample size, 5 EU markets, weekly/monthly tracking**

2. **US consumer tracking**
   - **2k sample size, monthly tracking**

3. **Gen AI Adoption among global enterprises**
   - **AI decision-maker at $1bn revenue + companies in UK, US, Japan, Germany & France**

Data Quality Issues: The Constant Challenge

Currently, and for the past 10 years, cost and convenience (DIY, fast turnaround) seem to have been the key drivers behind agency success

Sample source

- Clients are not always aware of the source of the sample used for their surveys
- Quality of sample varies, there is no industry standardisation

DIY Tools

Straight-lining & speeding

Standard QC is not always enough

- Lack of coherent responses are not always picked up

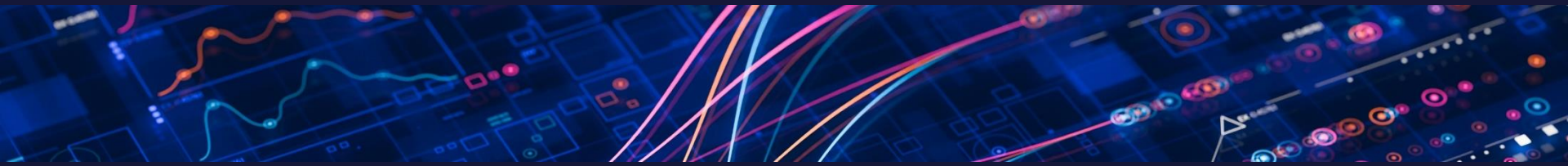
'Expert' respondents survey completion is a way of multi-earning, which has increased since the pandemic

- Proliferation of panels means that bad respondents are less easily identified
- Respondents are becoming more tech savvy and able to bypass standard quality measures

Data Quality Issues: The Constant Challenge

- **Manual use of bots**
- **Inattentive/dishonest Individuals**
- **Undervalued Individuals**
- **Technology**
- **Threat of increased Gen AI driven data falsification**
  - Gen AI tools are accessible, allowing for the quick and easy generation of fake responses
  - Gen AI allows for realistic and coherent responses, which would be harder to detect
  - Gen AI can aid in the automation of fake responses
- **Threat of increased gen AI driven tools**
  - AI tools, such as coding, that support with processes to be more cost effective and quicker

Morgan Stanley



What data quality issues are YOU encountering?

Data Quality Issues: What Clients Can Do

- **Make data quality the key driver behind agency selection**

- **Make sure you understand your agency's QC procedures**

- **Request checks beyond standard QC**
  Check for outliers that are not coherent

- **Do your own QC**

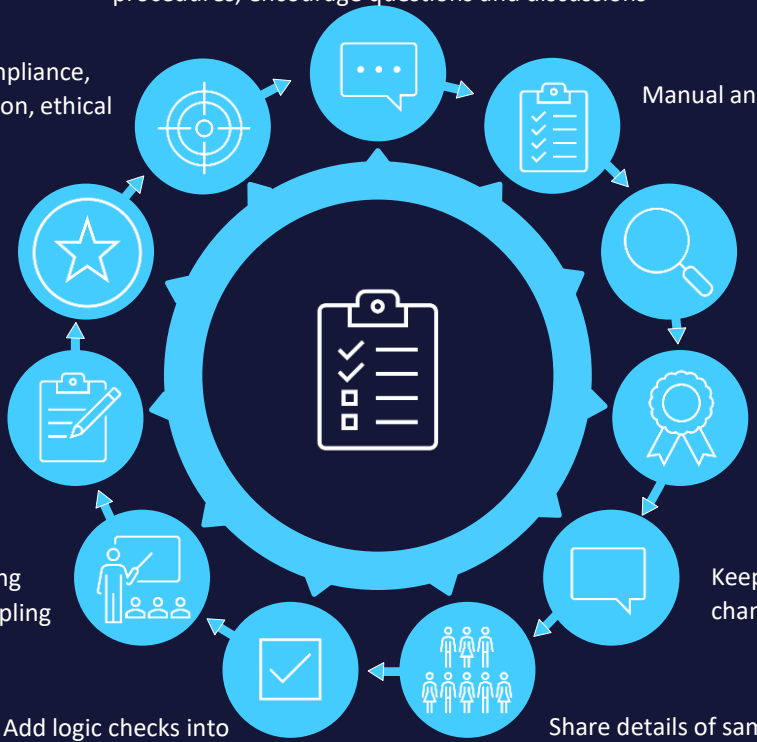
- **Pilot your questionnaire, do all questions 'work'?**
  Do questions make sense to respondents? Is information being requested correctly?

- **Add logic checks into your questionnaire**

- **Review all open-ended responses for coherence and relevance**

- **Make your questionnaire more engaging and try to keep to 15/20 minutes**

Data Quality Issues: What Field & Tab Agencies Can Do



Proactively talk to your clients about your QC procedures, encourage questions and discussions

Manual and automated checks

Use technology to spot things effectively and efficiently like grid straight-lining checks or using the latest AI tech to validate open responses

Manual checks are also crucial against fraud and to ensure high quality data and often reviewing the data is a crucial step in validating data

Keep clients informed of any changes in your QC procedures

Share details of sample sources and incentives paid to respondents

Add logic checks into your questionnaire

DIY Tools: give training on scripting and sampling

Review all open-ended responses: use of bots or tech can be more obvious here

Incentivise respondents fairly for their time and keep them engaged, value them by keeping them at the heart of the research

Accuracy, transparency, security, compliance, continuous improvement, collaboration, ethical practice, accountability

Data Quality Issues: The Future

How AI is already making an impact, but will it improve quality?

1. **Data Collection**
   - **Quant meets Qual?**
   - **Multi lingual capabilities**

2. **Data Completion**
   - **Identify & fill gaps**

3. **Data Analysis**
   - **Automated analysis of structured & unstructured data**
   - **Summaries**

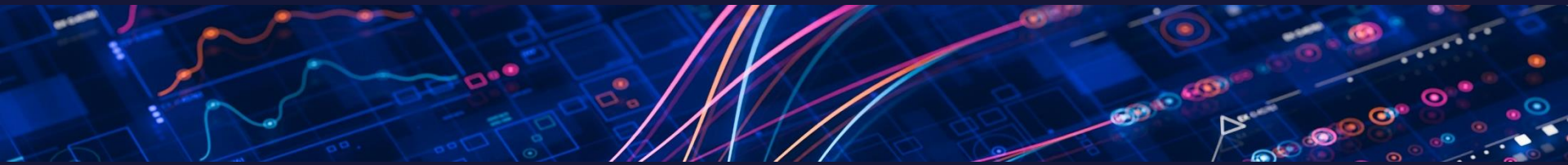
Data Quality Issues: The Future

1. With the increase of Gen AI and technology, data quality is likely to become the single most important driver behind agency selection – agencies who can guarantee data quality will be the winners

2. Surveys need to improve and quality responses encouraged. Clients need guarantees that their data is accurate and transparency on how data is collected

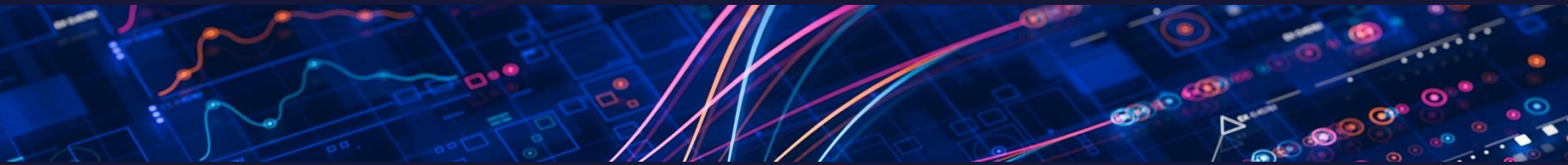
3. Is it time for industry wide change – could quality ratings be the answer?

Morgan Stanley



What do YOU think?
Any Questions?

Morgan Stanley



Thank You

Morgan Stanley

Disclosure Section

The information and opinions in Morgan Stanley Research were prepared or are disseminated by Morgan Stanley Europe S.E., regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin) and/or Morgan Stanley & Co. International plc, authorized by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. Morgan Stanley & Co. International plc disseminates in the UK research that it has prepared, and which has been prepared by any of its affiliates, only to persons who (i) are investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended, the "Order"); (ii) are persons who are high net worth entities falling within Article 49(2)(a) to (d) of the Order; or (iii) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000, as amended) may otherwise lawfully be communicated or caused to be communicated. As used in this disclosure section, Morgan Stanley includes RMB Morgan Stanley Proprietary Limited, Morgan Stanley Europe S.E., Morgan Stanley & Co International plc and its affiliates.

For important disclosures, stock price charts and equity rating histories regarding companies that are the subject of this report, please see the Morgan Stanley Research Disclosure Website at www.morganstanley.com/researchdisclosures, or contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY, 10036 USA.

For valuation methodology and risks associated with any recommendation, rating or price target referenced in this research report, please contact the Client Support Team as follows: US/Canada +1 800 303-2495; Hong Kong +852 2848-5999; Latin America +1 718 754-5444 (U.S.); London +44 (0)20-7425-8169; Singapore +65 6834-6860; Sydney +61 (0)2-9770-1505; Tokyo +81 (0)3-6836-9000. Alternatively you may contact your investment representative or Morgan Stanley Research at 1585 Broadway, (Attention: Research Management), New York, NY 10036 USA.

Global Research Conflict Management Policy

Morgan Stanley Research has been published in accordance with our conflict management policy, which is available at www.morganstanley.com/institutional/research/conflictpolicies. A Portuguese version of the policy can be found at www.morganstanley.com.br

Important Disclosures

Morgan Stanley is not acting as a municipal advisor and the opinions or views contained herein are not intended to be, and do not constitute, advice within the meaning of Section 975 of the Dodd-Frank Wall Street Reform and Consumer Protection Act.

Morgan Stanley Research does not provide individually tailored investment advice. Morgan Stanley Research has been prepared without regard to the circumstances and objectives of those who receive it. Morgan Stanley recommends that investors independently evaluate particular investments and strategies, and encourages investors to seek the advice of a financial adviser. The appropriateness of an investment or strategy will depend on an investor's circumstances and objectives. The securities, instruments, or strategies discussed in

Morgan Stanley

Disclosure Section (cont.)

Morgan Stanley Research may not be suitable for all investors, and certain investors may not be eligible to purchase or participate in some or all of them. Morgan Stanley Research is not an offer to buy or sell or the solicitation of an offer to buy or sell any security/instrument or to participate in any particular trading strategy. The value of and income from your investments may vary because of changes in interest rates, foreign exchange rates, default rates, prepayment rates, securities/instruments prices, market indexes, operational or financial conditions of companies or other factors. There may be time limitations on the exercise of options or other rights in securities/instruments transactions. Past performance is not necessarily a guide to future performance. Estimates of future performance are based on assumptions that may not be realized. If provided, and unless otherwise stated, the closing price on the cover page is that of the primary exchange for the subject company's securities/instruments.

The fixed income research analysts, strategists or economists principally responsible for the preparation of Morgan Stanley Research have received compensation based upon various factors, including quality, accuracy and value of research, firm profitability or revenues (which include fixed income trading and capital markets profitability or revenues), client feedback and competitive factors. Fixed Income Research analysts', strategists' or economists' compensation is not linked to investment banking or capital markets transactions performed by Morgan Stanley or the profitability or revenues of particular trading desks.

With the exception of information regarding Morgan Stanley, Morgan Stanley Research is based on public information. Morgan Stanley makes every effort to use reliable, comprehensive information, but we make no representation that it is accurate or complete. We have no obligation to tell you when opinions or information in Morgan Stanley Research change apart from when we intend to discontinue equity research coverage of a subject company. Facts and views presented in Morgan Stanley Research have not been reviewed by, and may not reflect information known to, professionals in other Morgan Stanley business areas, including investment banking personnel.

Morgan Stanley may make investment decisions that are inconsistent with the recommendations or views in this report.

To our readers based in Taiwan or trading in Taiwan securities/instruments: Information on securities/instruments that trade in Taiwan is distributed by Morgan Stanley Taiwan Limited ("MSTL"). Such information is for your reference only. The reader should independently evaluate the investment risks and is solely responsible for their investment decisions. Morgan Stanley Research may not be distributed to the public media or quoted or used by the public media without the express written consent of Morgan Stanley. Any non-customer reader within the scope of Article 7-1 of the Taiwan Stock Exchange Recommendation Regulations accessing and/or receiving Morgan Stanley Research is not permitted to provide Morgan Stanley Research to any third party (including but not limited to related parties, affiliated companies and any other third parties) or engage in any activities regarding Morgan Stanley Research which may create or give the appearance of creating a conflict of interest. Information on securities/instruments that do not trade in Taiwan is for informational purposes only and is not to be construed as a recommendation or a solicitation to trade in such securities/instruments. MSTL may not execute transactions for clients in these securities/instruments.

Morgan Stanley

Disclosure Section (cont.)
Morgan Stanley is not incorporated under PRC law and the research in relation to this report is conducted outside the PRC. Morgan Stanley Research does not constitute an offer to sell or the solicitation of an offer to buy any securities in the PRC. PRC investors shall have the relevant qualifications to invest in such securities and shall be responsible for obtaining all relevant approvals, licenses, verifications and/or registrations from the relevant governmental authorities themselves. Neither this report nor any part of it is intended as, or shall constitute, provision of any consultancy or advisory service of securities investment as defined under PRC law. Such information is provided for your reference only. Morgan Stanley Research is disseminated in Brazil by Morgan Stanley C.T.V.M. S.A. located at Av. Brigadeiro Faria Lima, 3600, 6th floor, São Paulo - SP, Brazil; and is regulated by the Comissão de Valores Mobiliários; in Mexico by Morgan Stanley México, Casa de Bolsa, S.A. de C.V which is regulated by Comision Nacional Bancaria y de Valores. Paseo de los Tamarindos 90, Torre 1, Col. Bosques de las Lomas Floor 29, 05120 Mexico City; in Japan by Morgan Stanley MUFG Securities Co., Ltd. and, for Commodities related research reports only, Morgan Stanley Capital Group Japan Co., Ltd; in Hong Kong by Morgan Stanley Asia Limited (which accepts responsibility for its contents) and by Morgan Stanley Bank Asia Limited; in Singapore by Morgan Stanley Asia (Singapore) Pte. (Registration number 199206298Z) and/or Morgan Stanley Asia (Singapore) Securities Pte Ltd (Registration number 200008434H), regulated by the Monetary Authority of Singapore (which accepts legal responsibility for its contents and should be contacted with respect to any matters arising from, or in connection with, Morgan Stanley Research) and by Morgan Stanley Bank Asia Limited, Singapore Branch (Registration number T14FC0118J); in Australia to "wholesale clients" within the meaning of the Australian Corporations Act by Morgan Stanley Australia Limited A.B.N. 67 003 734 576, holder of Australian financial services license No. 233742, which accepts responsibility for its contents; in Australia to "wholesale clients" and "retail clients" within the meaning of the Australian Corporations Act by Morgan Stanley Wealth Management Australia Pty Ltd (A.B.N. 19 009 145 555, holder of Australian financial services license No. 240813, which accepts responsibility for its contents; in Korea by Morgan Stanley & Co International plc, Seoul Branch; in India by Morgan Stanley India Company Private Limited having Corporate Identification No (CIN) U22990MH1998PTC115305, regulated by the Securities and Exchange Board of India (“SEBI”) and holder of licenses as a Research Analyst (SEBI Registration No. INH000001105); Stock Broker (SEBI Stock Broker Registration No. INZ000244438), Merchant Banker (SEBI Registration No. INM000011203), and depository participant with National Securities Depository Limited (SEBI Registration No. IN-DP-NSDL-567-2021) having registered office at Altimus, Level 39 & 40, Pandurang Budhkar Marg, Worli, Mumbai 400018, India; Telephone no. +91-22-61181000; Compliance Officer Details: Mr. Tejarshi Hardas, Tel. No.: +91-22-61181000 or Email: tejarshi.hardas@morganstanley.com; Grievance officer details: Mr. Tejarshi Hardas, Tel. No.: +91-22-61181000 or Email: msic-compliance@morganstanley.com; in Canada by Morgan Stanley Canada Limited; in Germany and the European Economic Area where required by Morgan Stanley Europe S.E., regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin) under the reference number 149169; in the United States by Morgan Stanley & Co. LLC, which accepts responsibility for its contents. Morgan Stanley & Co. International plc, authorized by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority, disseminates in the UK research that it has prepared, and

Morgan Stanley

Disclosure Section (cont.)
research which has been prepared by any of its affiliates, only to persons who (i) are investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended, the "Order"); (ii) are persons who are high net worth entities falling within Article 49(2)(a) to (d) of the Order; or (iii) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000, as amended) may otherwise lawfully be communicated or caused to be communicated. RMB Morgan Stanley Proprietary Limited is a member of the JSE Limited and A2X (Pty) Ltd. RMB Morgan Stanley Proprietary Limited is a joint venture owned equally by Morgan Stanley International Holdings Inc. and RMB Investment Advisory (Proprietary) Limited, which is wholly owned by FirstRand Limited. The information in Morgan Stanley Research is being disseminated by Morgan Stanley Saudi Arabia, regulated by the Capital Market Authority in the Kingdom of Saudi Arabia, and is directed at Sophisticated investors only.
The trademarks and service marks contained in Morgan Stanley Research are the property of their respective owners. Third-party data providers make no warranties or representations relating to the accuracy, completeness, or timeliness of the data they provide and shall not have liability for any damages relating to such data. The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and S&P.
Morgan Stanley Research, or any portion thereof may not be reprinted, sold or redistributed without the written consent of Morgan Stanley.
Indicators and trackers referenced in Morgan Stanley Research may not be used as, or treated as, a benchmark under Regulation EU 2016/1011, or any other similar framework.
The information in Morgan Stanley Research is being communicated by Morgan Stanley & Co. International plc (DIFC Branch), regulated by the Dubai Financial Services Authority (the DFSA) or by Morgan Stanley & Co. International plc (ADGM Branch), regulated by the Financial Services Regulatory Authority Abu Dhabi (the FSRA), and is directed at Professional Clients only, as defined by the DFSA or the FSRA, respectively. The financial products or financial services to which this research relates will only be made available to a customer who we are satisfied meets the regulatory criteria of a Professional Client. A distribution of the different MS Research ratings or recommendations, in percentage terms for Investments in each sector covered, is available upon request from your sales representative.
The information in Morgan Stanley Research is being communicated by Morgan Stanley & Co. International plc (QFC Branch), regulated by the Qatar Financial Centre Regulatory Authority (the QFCRA), and is directed at business customers and market counterparties only and is not intended for Retail Customers as defined by the QFCRA.
As required by the Capital Markets Board of Turkey, investment information, comments and recommendations stated here, are not within the scope of investment advisory activity. Investment advisory service is provided exclusively to persons based on their risk and income preferences by the authorized firms. Comments and recommendations stated here are

Morgan Stanley

Disclosure Section (cont.)
general in nature. These opinions may not fit to your financial status, risk and return preferences. For this reason, to make an investment decision by relying solely to this information stated here may not bring about outcomes that fit your expectations.
Registration granted by SEBI and certification from the National Institute of Securities Markets (NISM) in no way guarantee performance of the intermediary or provide any assurance of returns to investors. Investment in securities market are subject to market risks. Read all the related documents carefully before investing.
RAC24/04/2025

Morgan Stanley

The Americas

1585 Broadway
New York, NY 10036-8293
United States
+1 212 761 4000

Europe

20 Bank Street, Canary Wharf
London E14 4AD
United Kingdom
+44 (0)20 7425 8000

Japan

1-9-7 Otemachi, Chiyoda-ku
Tokyo 100-8109
Japan
+81 (0) 3 6836 5000

Asia/Pacific

1 Austin Road West
Kowloon
Hong Kong
+852 2848 5200

©2025 Morgan Stanley