**Slide Title: Evaluation of Alteryx for Automation Needs**

| **Parameter / Variable** | **Alteryx Capability** | **Alteryx Shortcomings** | **Workarounds / Comments** |
| --- | --- | --- | --- |
| Excel Data Integration | ✅ Can process and join multiple sheets | ❌ Cannot retain formulas or formatting in final output | Use Alteryx for logic, then reapply formatting/formulas manually |
| Complex Lookups & Validations | ✅ Strong support via tools | ❌ Manual tweaking needed for nested lookups or Excel-specific logic | Simplify logic or handle final tweaks in Excel |
| Output: Final Excel with Static Values | ✅ Supported | — | Ideal use-case for Alteryx |
| Output: Excel with Formulas / Formatting | ❌ Not retained after export | ❌ Cannot maintain pivot interactivity or conditional formatting | Post-process in Excel using templates or macros |
| Pivot Table Creation | ❌ Limited to data summary only | ❌ No interactive pivot generation like Excel | Pivot tables to be created outside Alteryx |
| Email Automation | ✅ Can send emails | ❌ Limited grouping; each user gets an individual mail | Use Outlook mail merge or Python for grouped mails |
| PowerPoint Creation (Linked to Excel) | ✅ Can export data to PPT | ❌ Manual formatting needed; not dynamically linked to Excel | Format slides post-export manually |

**Key Takeaway:** Alteryx is highly effective for backend data processing, validation, and transformation. However, it lacks in maintaining Excel-native features such as formulas, pivot interactivity, and formatting. Ideal for backend automation, not for frontend presentation needs.

**Slide Title: Evaluation of Alteryx for Automation Use Cases**

| **Parameter / Use Case** | **Alteryx Strengths** | **Identified Limitations** | **Workarounds / Recommendations** |
| --- | --- | --- | --- |
| Multi-sheet Excel Integration | ✅ Supports joins, merges, and unions | ❌ Does not preserve original formulas or formatting | Use Alteryx for core logic; apply formatting/formulas post-export or use Python scripting for final output enhancement |
| Complex Lookups and Validation Logic | ✅ Handles validations, filters, lookups | ❌ Limited for deeply nested logic or Excel-style functions | Simplify logic in Alteryx; finalize in Excel or use Python for complex logic integration |
| Static Output (Cleaned Excel File) | ✅ Easily exportable as flat files | — | Optimal scenario for Alteryx |
| Retaining Formulas & Formatting | ❌ Not retained in output | ❌ Loss of formulas, styles, and cell-level formatting | Reapply via templates, Excel macros, or Python-based Excel writers post-processing |
| Pivot Table Generation | ❌ Basic summarization only | ❌ Cannot generate dynamic/interactive Excel-style pivots | Use Excel or Python libraries like openpyxl/pandas for pivot creation post-Alteryx processing |
| Email Automation | ✅ Automated emails supported | ❌ Cannot group multiple recipients; one mail per user | Use Python (smtplib) or Outlook mail merge for grouped emails |
| PowerPoint Creation (Excel-linked Insights) | ✅ Exports tables/charts to PPT | ❌ No dynamic linking; manual formatting required | Use for raw data, then finalize deck manually or use Python-pptx for enhanced control |

**Executive Summary:**  
Alteryx excels in handling data preparation, cleansing, and transformation tasks with significant time savings. However, for outputs requiring Excel-native features (formulas, formatting, pivot interactivity) or dynamic presentation needs, supplemental tools or manual intervention is required. Alteryx should be positioned as a robust **backend engine**, not a **front-end output automation tool**.

Let me know if you'd like this turned into a polished PowerPoint slide or designed as a visual infographic-style version for executive presentation.