

| Data   | Facet      | Number of manually defined clusters | Hierarchical clustering |                 |              | Non-hierarchical clustering |                 |              |
|--------|------------|-------------------------------------|-------------------------|-----------------|--------------|-----------------------------|-----------------|--------------|
|        |            |                                     | <i>Purity</i>           | <i>I-Purity</i> | $F_1$        | <i>Purity</i>               | <i>I-Purity</i> | $F_1$        |
| Camera | Battery    | 4                                   | 0.864                   | 0.591           | 0.702        | 0.864                       | 0.636           | <b>0.733</b> |
|        | Memory     | 3                                   | 0.643                   | 1.000           | <b>0.783</b> | 0.643                       | 0.786           | 0.707        |
|        | Flash      | 4                                   | 0.556                   | 0.722           | 0.628        | 0.667                       | 0.722           | <b>0.693</b> |
|        | LCD        | 6                                   | 0.478                   | 0.826           | 0.606        | 0.565                       | 1.000           | <b>0.722</b> |
|        | Lens       | 7                                   | 0.792                   | 1.000           | <b>0.884</b> | 0.792                       | 1.000           | <b>0.884</b> |
|        | Megapixels | 5                                   | 0.621                   | 0.483           | 0.543        | 0.724                       | 0.552           | <b>0.626</b> |
|        | Mode       | 6                                   | 0.813                   | 1.000           | <b>0.897</b> | 0.813                       | 1.000           | <b>0.897</b> |
|        | Shutter    | 6                                   | 0.643                   | 0.929           | <b>0.760</b> | 0.643                       | 0.929           | <b>0.760</b> |
|        | Average    | 5.13                                | 0.676                   | 0.819           | 0.725        | 0.714                       | 0.828           | <b>0.753</b> |
| Phone  | Battery    | 3                                   | 0.824                   | 0.765           | <b>0.793</b> | 0.765                       | 0.706           | 0.734        |
|        | Camera     | 3                                   | 0.727                   | 0.636           | <b>0.679</b> | 0.727                       | 0.636           | <b>0.679</b> |
|        | Headset    | 4                                   | 0.467                   | 0.733           | <b>0.570</b> | 0.400                       | 0.600           | 0.480        |
|        | Radio      | 3                                   | 0.737                   | 0.737           | <b>0.737</b> | 0.737                       | 0.737           | <b>0.737</b> |
|        | Service    | 5                                   | 0.438                   | 0.875           | 0.583        | 0.563                       | 1.000           | <b>0.720</b> |
|        | Signal     | 3                                   | 0.824                   | 0.941           | <b>0.878</b> | 0.824                       | 0.765           | 0.793        |
|        | Size       | 3                                   | 0.760                   | 0.680           | 0.718        | 0.920                       | 0.680           | <b>0.782</b> |
|        | Speaker    | 4                                   | 0.684                   | 0.895           | <b>0.775</b> | 0.684                       | 0.789           | 0.733        |
|        | Average    | 3.50                                | 0.682                   | 0.783           | 0.717        | 0.702                       | 0.739           | <b>0.722</b> |
| DVD    | Price      | 1                                   | 1.000                   | 0.714           | 0.833        | 1.000                       | 0.762           | <b>0.865</b> |
|        | Remote     | 4                                   | 0.625                   | 0.750           | <b>0.682</b> | 0.563                       | 0.750           | 0.643        |
|        | Format     | 1                                   | 1.000                   | 0.714           | <b>0.833</b> | 1.000                       | 0.571           | 0.727        |
|        | Design     | 1                                   | 1.000                   | 1.000           | <b>1.000</b> | 1.000                       | 1.000           | <b>1.000</b> |
|        | Service    | 1                                   | 1.000                   | 0.739           | <b>0.850</b> | 1.000                       | 0.522           | 0.686        |
|        | Picture    | 4                                   | 0.800                   | 0.850           | <b>0.824</b> | 0.800                       | 0.850           | <b>0.824</b> |
|        | Average    | 2.00                                | 0.904                   | 0.795           | <b>0.837</b> | 0.894                       | 0.743           | 0.791        |