Population, Sample, and Study Tool:

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| --- | --- | --- | --- |
| **Reliability Statistics** | Cronbach's Alpha الثبات | N of Items | الصدق |
| Leadership Approach in Education | 0.757 | 12 | 0.870 |
| Leadership Decision-making | 0.805 | 10 | 0.897 |
| Leadership Communication | 0.834 | 10 | 0.913 |
| ISO 21001:2018 Application | 0.964 | 10 | 0.982 |
| Impact of Leadership Approach | 0.864 | 5 | 0.929 |
| total survey | 0.942 | 47 | 0.971 |

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| --- | --- |
| Y | Pearson Correlation |
| x1 | .689\*\* |
| x2 | .674\*\* |
| x3 | .646\*\* |
| x4 | .571\*\* |
| x5 | .510\*\* |
| x6 | .470\*\* |
| x7 | .606\*\* |
| x8 | .599\*\* |
| x9 | .599\*\* |
| x10 | .661\*\* |
| x11 | .775\*\* |
| x12 | .622\*\* |

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| --- | --- |
| XX1 | Correlation Coefficient |
| x13 | .672\*\* |
| x14 | .561\*\* |
| x15 | .617\*\* |
| x16 | .627\*\* |
| x17 | .642\*\* |
| x18 | .657\*\* |
| x19 | .693\*\* |
| x20 | .541\*\* |
| x21 | .713\*\* |
| x22 | .669\*\* |

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| --- | --- |
| XX2 | Correlation Coefficient |
| x23 | .645\*\* |
| x24 | .723\*\* |
| x25 | .675\*\* |
| x26 | .695\*\* |
| x27 | .629\*\* |
| x28 | .646\*\* |
| x29 | .594\*\* |
| x30 | .741\*\* |
| x31 | .714\*\* |
| x32 | .702\*\* |

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| XX3 | Correlation Coefficient |
| x33 | .870\*\* |
| x34 | .844\*\* |
| x35 | .873\*\* |
| x36 | .840\*\* |
| x37 | .889\*\* |
| x38 | .786\*\* |
| x39 | .864\*\* |
| x40 | .819\*\* |
| x41 | .860\*\* |
| x42 | .870\*\* |

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| XX4 | Correlation Coefficient |
| x43 | .832\*\* |
| x44 | .817\*\* |
| x45 | .768\*\* |
| x46 | .810\*\* |
| x47 | .835\*\* |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| X | Strongly Agree | | Agree | | Neutral | | Disagree | | Strongly Disagree | |  |  |  |  |
| Count | N % | Count | N % | Count | N % | Count | N % | Count | N % | Mean | Std. Deviation | درجة الموافقة | C. V. |
| x1 | 65 | 73.9% | 22 | 25.0% | 0 | 0.0% | 1 | 1.1% | 0 | 0.0% | 4.72 | 0.524 | 94.3% | 11.1% |
| x2 | 19 | 21.6% | 51 | 58.0% | 17 | 19.3% | 0 | 0.0% | 1 | 1.1% | 3.99 | 0.719 | 79.8% | 18.0% |
| x3 | 43 | 48.9% | 33 | 37.5% | 9 | 10.2% | 3 | 3.4% | 0 | 0.0% | 4.32 | 0.796 | 86.4% | 18.4% |
| x4 | 69 | 78.4% | 19 | 21.6% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 4.78 | 0.414 | 95.7% | 8.6% |
| x5 | 37 | 42.0% | 40 | 45.5% | 9 | 10.2% | 2 | 2.3% | 0 | 0.0% | 4.27 | 0.739 | 85.5% | 17.3% |
| x6 | 39 | 44.3% | 41 | 46.6% | 7 | 8.0% | 0 | 0.0% | 1 | 1.1% | 4.33 | 0.723 | 86.6% | 16.7% |
| x7 | 37 | 42.0% | 38 | 43.2% | 10 | 11.4% | 2 | 2.3% | 1 | 1.1% | 4.23 | 0.827 | 84.5% | 19.6% |
| x8 | 65 | 73.9% | 22 | 25.0% | 0 | 0.0% | 1 | 1.1% | 0 | 0.0% | 4.72 | 0.524 | 94.3% | 11.1% |
| x9 | 51 | 58.0% | 31 | 35.2% | 5 | 5.7% | 1 | 1.1% | 0 | 0.0% | 4.50 | 0.661 | 90.0% | 14.7% |
| x10 | 30 | 34.1% | 49 | 55.7% | 8 | 9.1% | 1 | 1.1% | 0 | 0.0% | 4.23 | 0.656 | 84.5% | 15.5% |
| x11 | 32 | 36.4% | 45 | 51.1% | 9 | 10.2% | 2 | 2.3% | 0 | 0.0% | 4.22 | 0.718 | 84.3% | 17.0% |
| x12 | 36 | 40.9% | 41 | 46.6% | 8 | 9.1% | 3 | 3.4% | 0 | 0.0% | 4.25 | 0.762 | 85.0% | 17.9% |
|  | | | | | | | | | | | 4.38 | 0.356 | 87.6% | 8.1% |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Y1 | Strongly Agree | | Agree | | Neutral | | Disagree | | Strongly Disagree | |  |  |  |  |
| Count | N % | Count | N % | Count | N % | Count | N % | Count | N % | Mean | Std. Deviation | Degree of Agreement | C. V. |
| x13 | 60 | 68.2% | 25 | 28.4% | 3 | 3.4% | 0 | 0.0% | 0 | 0.0% | 4.65 | 0.548 | 93.0% | 11.8% |
| x14 | 43 | 48.9% | 36 | 40.9% | 8 | 9.1% | 1 | 1.1% | 0 | 0.0% | 4.38 | 0.700 | 87.5% | 16.0% |
| x15 | 52 | 59.1% | 28 | 31.8% | 6 | 6.8% | 2 | 2.3% | 0 | 0.0% | 4.48 | 0.727 | 89.5% | 16.2% |
| x16 | 53 | 60.2% | 31 | 35.2% | 4 | 4.5% | 0 | 0.0% | 0 | 0.0% | 4.56 | 0.584 | 91.1% | 12.8% |
| x17 | 57 | 64.8% | 28 | 31.8% | 3 | 3.4% | 0 | 0.0% | 0 | 0.0% | 4.61 | 0.556 | 92.3% | 12.0% |
| x18 | 35 | 39.8% | 39 | 44.3% | 12 | 13.6% | 2 | 2.3% | 0 | 0.0% | 4.22 | 0.765 | 84.3% | 18.1% |
| x19 | 49 | 55.7% | 32 | 36.4% | 5 | 5.7% | 2 | 2.3% | 0 | 0.0% | 4.45 | 0.710 | 89.1% | 15.9% |
| x20 | 35 | 39.8% | 38 | 43.2% | 9 | 10.2% | 6 | 6.8% | 0 | 0.0% | 4.16 | 0.869 | 83.2% | 20.9% |
| x21 | 34 | 38.6% | 44 | 50.0% | 8 | 9.1% | 2 | 2.3% | 0 | 0.0% | 4.25 | 0.715 | 85.0% | 16.8% |
| x22 | 38 | 43.2% | 40 | 45.5% | 8 | 9.1% | 2 | 2.3% | 0 | 0.0% | 4.30 | 0.730 | 85.9% | 17.0% |
|  | | | | | | | | | | | 4.40 | 0.420 | 88.1% | 9.5% |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Y2 | Strongly Agree | | Agree | | Neutral | | Disagree | | Strongly Disagree | |  |  |  |  |
| Count | N % | Count | N % | Count | N % | Count | N % | Count | N % | Mean | Std. Deviation | Degree of Agreement | C. V. |
| x23 | 46 | 52.3% | 41 | 46.6% | 1 | 1.1% | 0 | 0.0% | 0 | 0.0% | 4.51 | 0.525 | 90.2% | 11.6% |
| x24 | 44 | 50.0% | 40 | 45.5% | 4 | 4.5% | 0 | 0.0% | 0 | 0.0% | 4.45 | 0.585 | 89.1% | 13.1% |
| x25 | 22 | 25.0% | 48 | 54.5% | 15 | 17.0% | 3 | 3.4% | 0 | 0.0% | 4.01 | 0.750 | 80.2% | 18.7% |
| x26 | 46 | 52.3% | 33 | 37.5% | 9 | 10.2% | 0 | 0.0% | 0 | 0.0% | 4.42 | 0.673 | 88.4% | 15.2% |
| x27 | 53 | 60.2% | 28 | 31.8% | 7 | 8.0% | 0 | 0.0% | 0 | 0.0% | 4.52 | 0.643 | 90.5% | 14.2% |
| x28 | 48 | 54.5% | 33 | 37.5% | 6 | 6.8% | 1 | 1.1% | 0 | 0.0% | 4.45 | 0.677 | 89.1% | 15.2% |
| x29 | 43 | 48.9% | 44 | 50.0% | 1 | 1.1% | 0 | 0.0% | 0 | 0.0% | 4.48 | 0.525 | 89.5% | 11.7% |
| x30 | 42 | 47.7% | 38 | 43.2% | 8 | 9.1% | 0 | 0.0% | 0 | 0.0% | 4.39 | 0.651 | 87.7% | 14.8% |
| x31 | 39 | 44.3% | 42 | 47.7% | 4 | 4.5% | 3 | 3.4% | 0 | 0.0% | 4.33 | 0.723 | 86.6% | 16.7% |
| x32 | 37 | 42.0% | 45 | 51.1% | 6 | 6.8% | 0 | 0.0% | 0 | 0.0% | 4.35 | 0.607 | 87.0% | 14.0% |
|  | | | | | | | | | | | 4.39 | 0.405 | 87.8% | 9.2% |

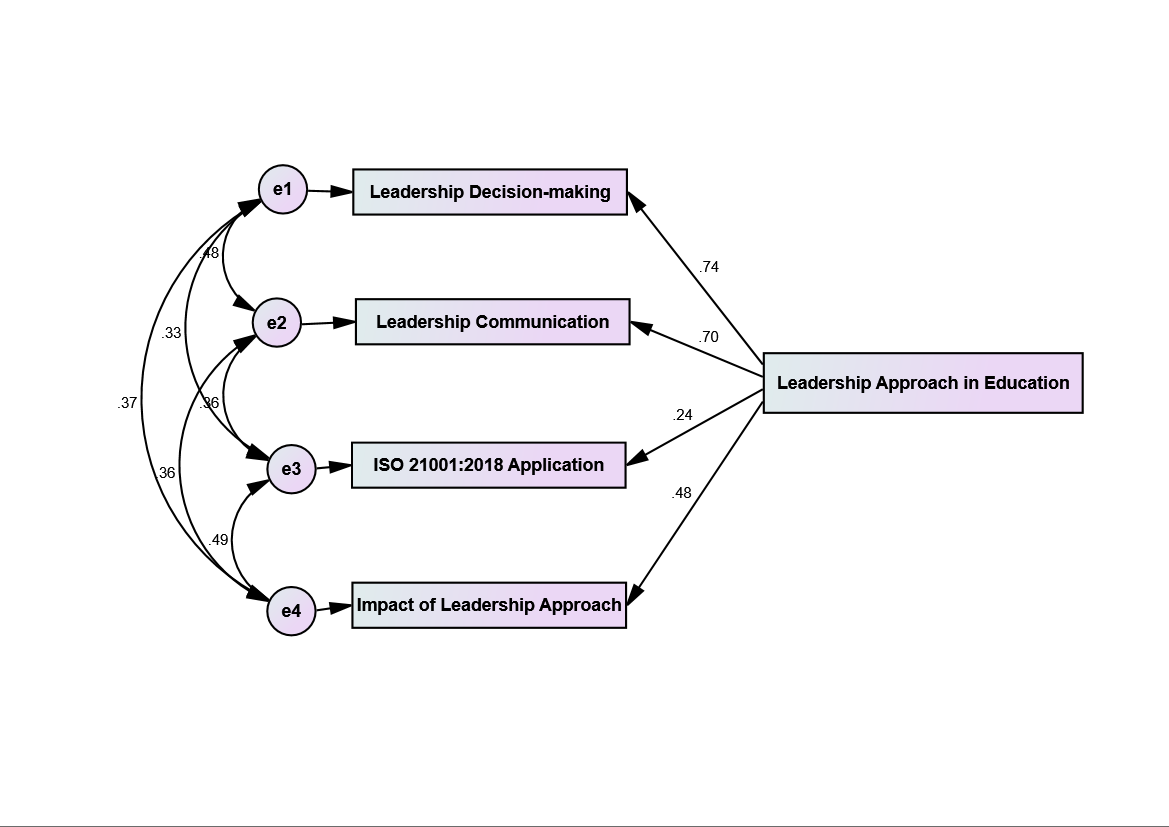
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Y3 | Strongly Agree | | Agree | | Neutral | | Disagree | | Strongly Disagree | |  |  |  |  |
| Count | N % | Count | N % | Count | N % | Count | N % | Count | N % | Mean | Std. Deviation | Degree of Agreement | C. V. |
| x33 | 27 | 30.7% | 43 | 48.9% | 18 | 20.5% | 0 | 0.0% | 0 | 0.0% | 4.10 | 0.712 | 82.0% | 17.4% |
| x34 | 28 | 31.8% | 42 | 47.7% | 18 | 20.5% | 0 | 0.0% | 0 | 0.0% | 4.11 | 0.718 | 82.3% | 17.5% |
| x35 | 31 | 35.2% | 39 | 44.3% | 18 | 20.5% | 0 | 0.0% | 0 | 0.0% | 4.15 | 0.736 | 83.0% | 17.7% |
| x36 | 27 | 30.7% | 46 | 52.3% | 15 | 17.0% | 0 | 0.0% | 0 | 0.0% | 4.14 | 0.681 | 82.7% | 16.5% |
| x37 | 25 | 28.4% | 48 | 54.5% | 15 | 17.0% | 0 | 0.0% | 0 | 0.0% | 4.11 | 0.668 | 82.3% | 16.2% |
| x38 | 24 | 27.3% | 48 | 54.5% | 16 | 18.2% | 0 | 0.0% | 0 | 0.0% | 4.09 | 0.672 | 81.8% | 16.4% |
| x39 | 27 | 30.7% | 47 | 53.4% | 14 | 15.9% | 0 | 0.0% | 0 | 0.0% | 4.15 | 0.670 | 83.0% | 16.2% |
| x40 | 21 | 23.9% | 44 | 50.0% | 21 | 23.9% | 2 | 2.3% | 0 | 0.0% | 3.95 | 0.757 | 79.1% | 19.1% |
| x41 | 26 | 29.5% | 45 | 51.1% | 17 | 19.3% | 0 | 0.0% | 0 | 0.0% | 4.10 | 0.695 | 82.0% | 17.0% |
| x42 | 30 | 34.1% | 42 | 47.7% | 16 | 18.2% | 0 | 0.0% | 0 | 0.0% | 4.16 | 0.709 | 83.2% | 17.1% |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Y4 | Strongly Agree | | Agree | | Neutral | | Disagree | | Strongly Disagree | |  |  |  |  |
| Count | N % | Count | N % | Count | N % | Count | N % | Count | N % | Mean | Std. Deviation | Degree of Agreement | C. V. |
| x43 | 48 | 54.5% | 34 | 38.6% | 6 | 6.8% | 0 | 0.0% | 0 | 0.0% | 4.48 | 0.625 | 89.5% | 14.0% |
| x44 | 55 | 62.5% | 32 | 36.4% | 1 | 1.1% | 0 | 0.0% | 0 | 0.0% | 4.61 | 0.513 | 92.3% | 11.1% |
| x45 | 56 | 63.6% | 30 | 34.1% | 2 | 2.3% | 0 | 0.0% | 0 | 0.0% | 4.61 | 0.535 | 92.3% | 11.6% |
| x46 | 40 | 45.5% | 44 | 50.0% | 4 | 4.5% | 0 | 0.0% | 0 | 0.0% | 4.41 | 0.580 | 88.2% | 13.2% |
| x47 | 52 | 59.1% | 33 | 37.5% | 2 | 2.3% | 1 | 1.1% | 0 | 0.0% | 4.55 | 0.605 | 90.9% | 13.3% |
|  | | | | | | | | | | | 4.53 | 0.461 | 90.6% | 10.2% |

**Demographic variables**

|  |  |  |  |
| --- | --- | --- | --- |
|  | | Frequency | Percent |
| Sex | Male | 52 | 59.1 |
| Female | 36 | 40.9 |
| age | 18-24 | 5 | 5.7 |
| 25-34 | 24 | 27.3 |
| 35-44 | 36 | 40.9 |
| 45-54 | 14 | 15.9 |
| Educational | Bachelor's Degree | 56 | 63.6 |
| Master's Degree | 15 | 17.0 |
| Doctorate Degree | 17 | 19.3 |

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|  | | **Leadership Decision-making** | **Leadership Communication** | **ISO 21001:2018 Application** | **Impact of Leadership Approach** |
| **Leadership Approach in Education** | **Correlation Coefficient** | **0.773\*\*** | **0.713\*\*** | **0.287\*\*** | **0.576\*\*** |
| **P\_value** | **0.001** | **0.001** | **0.001** | **0.001** |



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| --- | --- | --- | --- |
| **Reliability Statistics** | Cronbach's Alpha | N of Items | Validity |
| Leadership Approach in Education | 0.757 | 12 | 0.870 |
| Leadership Decision-making | 0.805 | 10 | 0.897 |
| Leadership Communication | 0.834 | 10 | 0.913 |
| ISO 21001:2018 Application | 0.964 | 10 | 0.982 |
| Impact of Leadership Approach | 0.864 | 5 | 0.929 |
| total survey | 0.942 | 47 | 0.971 |

|  |  |
| --- | --- |
| Y | Pearson Correlation |
| x1 | .689\*\* |
| x2 | .674\*\* |
| x3 | .646\*\* |
| x4 | .571\*\* |
| x5 | .510\*\* |
| x6 | .470\*\* |
| x7 | .606\*\* |
| x8 | .599\*\* |
| x9 | .599\*\* |
| x10 | .661\*\* |
| x11 | .775\*\* |
| x12 | .622\*\* |

|  |  |
| --- | --- |
| XX1 | Correlation Coefficient |
| x13 | .672\*\* |
| x14 | .561\*\* |
| x15 | .617\*\* |
| x16 | .627\*\* |
| x17 | .642\*\* |
| x18 | .657\*\* |
| x19 | .693\*\* |
| x20 | .541\*\* |
| x21 | .713\*\* |
| x22 | .669\*\* |

|  |  |
| --- | --- |
| XX2 | Correlation Coefficient |
| x23 | .645\*\* |
| x24 | .723\*\* |
| x25 | .675\*\* |
| x26 | .695\*\* |
| x27 | .629\*\* |
| x28 | .646\*\* |
| x29 | .594\*\* |
| x30 | .741\*\* |
| x31 | .714\*\* |
| x32 | .702\*\* |

|  |  |
| --- | --- |
| XX3 | Correlation Coefficient |
| x33 | .870\*\* |
| x34 | .844\*\* |
| x35 | .873\*\* |
| x36 | .840\*\* |
| x37 | .889\*\* |
| x38 | .786\*\* |
| x39 | .864\*\* |
| x40 | .819\*\* |
| x41 | .860\*\* |
| x42 | .870\*\* |

|  |  |
| --- | --- |
| XX4 | Correlation Coefficient |
| x43 | .832\*\* |
| x44 | .817\*\* |
| x45 | .768\*\* |
| x46 | .810\*\* |
| x47 | .835\*\* |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| X | Strongly Agree | | Agree | | Neutral | | Disagree | | Strongly Disagree | |  |  |  |  |
| Count | N % | Count | N % | Count | N % | Count | N % | Count | N % | Mean | Std. Deviation | Degree of Agreement | C. V. |
| x1 | 65 | 73.9% | 22 | 25.0% | 0 | 0.0% | 1 | 1.1% | 0 | 0.0% | 4.72 | 0.524 | 94.3% | 11.1% |
| x2 | 19 | 21.6% | 51 | 58.0% | 17 | 19.3% | 0 | 0.0% | 1 | 1.1% | 3.99 | 0.719 | 79.8% | 18.0% |
| x3 | 43 | 48.9% | 33 | 37.5% | 9 | 10.2% | 3 | 3.4% | 0 | 0.0% | 4.32 | 0.796 | 86.4% | 18.4% |
| x4 | 69 | 78.4% | 19 | 21.6% | 0 | 0.0% | 0 | 0.0% | 0 | 0.0% | 4.78 | 0.414 | 95.7% | 8.6% |
| x5 | 37 | 42.0% | 40 | 45.5% | 9 | 10.2% | 2 | 2.3% | 0 | 0.0% | 4.27 | 0.739 | 85.5% | 17.3% |
| x6 | 39 | 44.3% | 41 | 46.6% | 7 | 8.0% | 0 | 0.0% | 1 | 1.1% | 4.33 | 0.723 | 86.6% | 16.7% |
| x7 | 37 | 42.0% | 38 | 43.2% | 10 | 11.4% | 2 | 2.3% | 1 | 1.1% | 4.23 | 0.827 | 84.5% | 19.6% |
| x8 | 65 | 73.9% | 22 | 25.0% | 0 | 0.0% | 1 | 1.1% | 0 | 0.0% | 4.72 | 0.524 | 94.3% | 11.1% |
| x9 | 51 | 58.0% | 31 | 35.2% | 5 | 5.7% | 1 | 1.1% | 0 | 0.0% | 4.50 | 0.661 | 90.0% | 14.7% |
| x10 | 30 | 34.1% | 49 | 55.7% | 8 | 9.1% | 1 | 1.1% | 0 | 0.0% | 4.23 | 0.656 | 84.5% | 15.5% |
| x11 | 32 | 36.4% | 45 | 51.1% | 9 | 10.2% | 2 | 2.3% | 0 | 0.0% | 4.22 | 0.718 | 84.3% | 17.0% |
| x12 | 36 | 40.9% | 41 | 46.6% | 8 | 9.1% | 3 | 3.4% | 0 | 0.0% | 4.25 | 0.762 | 85.0% | 17.9% |
|  | | | | | | | | | | | 4.38 | 0.356 | 87.6% | 8.1% |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Y1 | Strongly Agree | | Agree | | Neutral | | Disagree | | Strongly Disagree | |  |  |  |  |
| Count | N % | Count | N % | Count | N % | Count | N % | Count | N % | Mean | Std. Deviation | Degree of Agreement | C. V. |
| x13 | 60 | 68.2% | 25 | 28.4% | 3 | 3.4% | 0 | 0.0% | 0 | 0.0% | 4.65 | 0.548 | 93.0% | 11.8% |
| x14 | 43 | 48.9% | 36 | 40.9% | 8 | 9.1% | 1 | 1.1% | 0 | 0.0% | 4.38 | 0.700 | 87.5% | 16.0% |
| x15 | 52 | 59.1% | 28 | 31.8% | 6 | 6.8% | 2 | 2.3% | 0 | 0.0% | 4.48 | 0.727 | 89.5% | 16.2% |
| x16 | 53 | 60.2% | 31 | 35.2% | 4 | 4.5% | 0 | 0.0% | 0 | 0.0% | 4.56 | 0.584 | 91.1% | 12.8% |
| x17 | 57 | 64.8% | 28 | 31.8% | 3 | 3.4% | 0 | 0.0% | 0 | 0.0% | 4.61 | 0.556 | 92.3% | 12.0% |
| x18 | 35 | 39.8% | 39 | 44.3% | 12 | 13.6% | 2 | 2.3% | 0 | 0.0% | 4.22 | 0.765 | 84.3% | 18.1% |
| x19 | 49 | 55.7% | 32 | 36.4% | 5 | 5.7% | 2 | 2.3% | 0 | 0.0% | 4.45 | 0.710 | 89.1% | 15.9% |
| x20 | 35 | 39.8% | 38 | 43.2% | 9 | 10.2% | 6 | 6.8% | 0 | 0.0% | 4.16 | 0.869 | 83.2% | 20.9% |
| x21 | 34 | 38.6% | 44 | 50.0% | 8 | 9.1% | 2 | 2.3% | 0 | 0.0% | 4.25 | 0.715 | 85.0% | 16.8% |
| x22 | 38 | 43.2% | 40 | 45.5% | 8 | 9.1% | 2 | 2.3% | 0 | 0.0% | 4.30 | 0.730 | 85.9% | 17.0% |
|  | | | | | | | | | | | 4.40 | 0.420 | 88.1% | 9.5% |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Y2 | Strongly Agree | | Agree | | Neutral | | Disagree | | Strongly Disagree | |  |  |  |  |
| Count | N % | Count | N % | Count | N % | Count | N % | Count | N % | Mean | Std. Deviation | Degree of Agreement | C. V. |
| x23 | 46 | 52.3% | 41 | 46.6% | 1 | 1.1% | 0 | 0.0% | 0 | 0.0% | 4.51 | 0.525 | 90.2% | 11.6% |
| x24 | 44 | 50.0% | 40 | 45.5% | 4 | 4.5% | 0 | 0.0% | 0 | 0.0% | 4.45 | 0.585 | 89.1% | 13.1% |
| x25 | 22 | 25.0% | 48 | 54.5% | 15 | 17.0% | 3 | 3.4% | 0 | 0.0% | 4.01 | 0.750 | 80.2% | 18.7% |
| x26 | 46 | 52.3% | 33 | 37.5% | 9 | 10.2% | 0 | 0.0% | 0 | 0.0% | 4.42 | 0.673 | 88.4% | 15.2% |
| x27 | 53 | 60.2% | 28 | 31.8% | 7 | 8.0% | 0 | 0.0% | 0 | 0.0% | 4.52 | 0.643 | 90.5% | 14.2% |
| x28 | 48 | 54.5% | 33 | 37.5% | 6 | 6.8% | 1 | 1.1% | 0 | 0.0% | 4.45 | 0.677 | 89.1% | 15.2% |
| x29 | 43 | 48.9% | 44 | 50.0% | 1 | 1.1% | 0 | 0.0% | 0 | 0.0% | 4.48 | 0.525 | 89.5% | 11.7% |
| x30 | 42 | 47.7% | 38 | 43.2% | 8 | 9.1% | 0 | 0.0% | 0 | 0.0% | 4.39 | 0.651 | 87.7% | 14.8% |
| x31 | 39 | 44.3% | 42 | 47.7% | 4 | 4.5% | 3 | 3.4% | 0 | 0.0% | 4.33 | 0.723 | 86.6% | 16.7% |
| x32 | 37 | 42.0% | 45 | 51.1% | 6 | 6.8% | 0 | 0.0% | 0 | 0.0% | 4.35 | 0.607 | 87.0% | 14.0% |
|  | | | | | | | | | | | 4.39 | 0.405 | 87.8% | 9.2% |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Y3 | Strongly Agree | | Agree | | Neutral | | Disagree | | Strongly Disagree | |  |  |  |  |
| Count | N % | Count | N % | Count | N % | Count | N % | Count | N % | Mean | Std. Deviation | Degree of Agreement | C. V. |
| x33 | 27 | 30.7% | 43 | 48.9% | 18 | 20.5% | 0 | 0.0% | 0 | 0.0% | 4.10 | 0.712 | 82.0% | 17.4% |
| x34 | 28 | 31.8% | 42 | 47.7% | 18 | 20.5% | 0 | 0.0% | 0 | 0.0% | 4.11 | 0.718 | 82.3% | 17.5% |
| x35 | 31 | 35.2% | 39 | 44.3% | 18 | 20.5% | 0 | 0.0% | 0 | 0.0% | 4.15 | 0.736 | 83.0% | 17.7% |
| x36 | 27 | 30.7% | 46 | 52.3% | 15 | 17.0% | 0 | 0.0% | 0 | 0.0% | 4.14 | 0.681 | 82.7% | 16.5% |
| x37 | 25 | 28.4% | 48 | 54.5% | 15 | 17.0% | 0 | 0.0% | 0 | 0.0% | 4.11 | 0.668 | 82.3% | 16.2% |
| x38 | 24 | 27.3% | 48 | 54.5% | 16 | 18.2% | 0 | 0.0% | 0 | 0.0% | 4.09 | 0.672 | 81.8% | 16.4% |
| x39 | 27 | 30.7% | 47 | 53.4% | 14 | 15.9% | 0 | 0.0% | 0 | 0.0% | 4.15 | 0.670 | 83.0% | 16.2% |
| x40 | 21 | 23.9% | 44 | 50.0% | 21 | 23.9% | 2 | 2.3% | 0 | 0.0% | 3.95 | 0.757 | 79.1% | 19.1% |
| x41 | 26 | 29.5% | 45 | 51.1% | 17 | 19.3% | 0 | 0.0% | 0 | 0.0% | 4.10 | 0.695 | 82.0% | 17.0% |
| x42 | 30 | 34.1% | 42 | 47.7% | 16 | 18.2% | 0 | 0.0% | 0 | 0.0% | 4.16 | 0.709 | 83.2% | 17.1% |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Y4 | Strongly Agree | | Agree | | Neutral | | Disagree | | Strongly Disagree | |  |  |  |  |
| Count | N % | Count | N % | Count | N % | Count | N % | Count | N % | Mean | Std. Deviation | Degree of Agreement | C. V. |
| x43 | 48 | 54.5% | 34 | 38.6% | 6 | 6.8% | 0 | 0.0% | 0 | 0.0% | 4.48 | 0.625 | 89.5% | 14.0% |
| x44 | 55 | 62.5% | 32 | 36.4% | 1 | 1.1% | 0 | 0.0% | 0 | 0.0% | 4.61 | 0.513 | 92.3% | 11.1% |
| x45 | 56 | 63.6% | 30 | 34.1% | 2 | 2.3% | 0 | 0.0% | 0 | 0.0% | 4.61 | 0.535 | 92.3% | 11.6% |
| x46 | 40 | 45.5% | 44 | 50.0% | 4 | 4.5% | 0 | 0.0% | 0 | 0.0% | 4.41 | 0.580 | 88.2% | 13.2% |
| x47 | 52 | 59.1% | 33 | 37.5% | 2 | 2.3% | 1 | 1.1% | 0 | 0.0% | 4.55 | 0.605 | 90.9% | 13.3% |
|  | | | | | | | | | | | 4.53 | 0.461 | 90.6% | 10.2% |

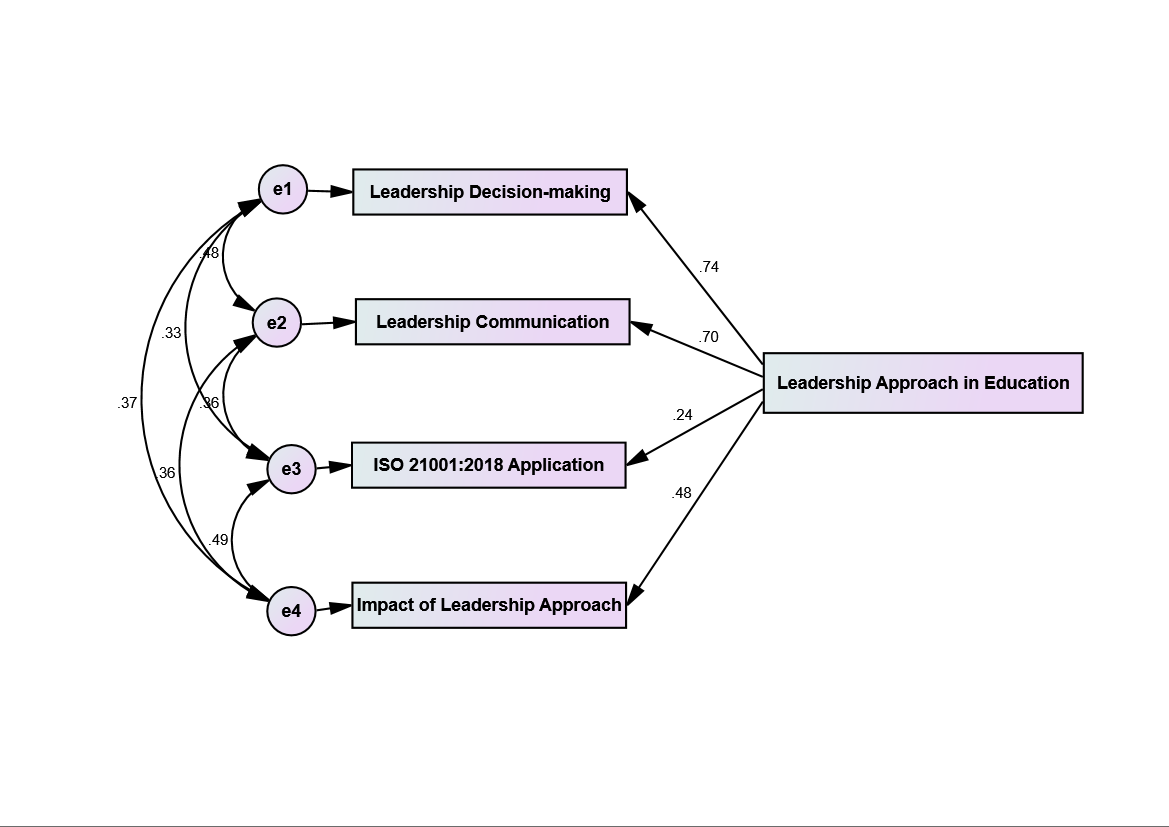
**Demographic variables**

|  |  |  |  |
| --- | --- | --- | --- |
|  | | Frequency | Percent |
| Sex | Male | 52 | 59.1 |
| Female | 36 | 40.9 |
| age | 18-24 | 5 | 5.7 |
| 25-34 | 24 | 27.3 |
| 35-44 | 36 | 40.9 |
| 45-54 | 14 | 15.9 |
| Educational | Bachelor's Degree | 56 | 63.6 |
| Master's Degree | 15 | 17.0 |
| Doctorate Degree | 17 | 19.3 |

**Testing the Study Hypotheses**

To test the study hypotheses and assess their validity, the researcher designed a structural model to investigate the effect of the independent variable on the four dependent variables. The AMOS 24 software was used to formulate the proposed structural model.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | **Leadership Decision-making** | **Leadership Communication** | **ISO 21001:2018 Application** | **Impact of Leadership Approach** |
| **Leadership Approach in Education** | **Correlation Coefficient** | **0.773\*\*** | **0.713\*\*** | **0.287\*\*** | **0.576\*\*** |
| **P\_value** | **0.001** | **0.001** | **0.001** | **0.001** |



|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  | Standardized | S.E. | t statistics | P |
| Leadership Decision-making | <--- | Leadership approach in education | 0.740 | 0.085 | 10.261 | 0.001 |
| Leadership Communication | <--- | 0.702 | 0.087 | 9.181 | 0.001 |
| ISO 21001:2018 Application | <--- | 0.240 | 0.178 | 2.306 | 0.021 |
| Impact of Leadership Approach | <--- | 0.480 | 0.122 | 5.097 | 0.001 |

The table above shows that the independent variable has a positive effect on all dependent variables. This is evident in the standardized values, all of which are significant at a significance level of less than 0.01.

The fit indices of the proposed structural model indicated that the chi-square (X2) value was equal to (0.000) and the significance (0.001), which is less than (0.05), so it is significant. The fit indices of the proposed model also reached ideal or near-ideal levels, with the goodness-of-fit index (GFI) being equal to (1.000), the comparative fit index (CFI) being equal to (1.000), the root mean square of residual (RMR) being equal to (0.001), and the root mean square error of approximation (RMSEA) being equal to (0.001). This means that the final proposed structural model is identical, representative of the model data, and similar to the study data, as well as its indices. It can also reconstruct the correlation matrix without significant differences from the original matrix. In light of the previous model quality indicators, the stage of testing the causal relationships between the study variables can be moved to.

Discussion and Interpretation of the Results of the First Sub-Hypothesis

The first sub-hypothesis states that "there is an effect of the independent variable (leadership approach in education) on the dependent variable (leadership decision-making)."

In light of the paths shown in the study's structural model in table ( ), the first path represents the first sub-hypothesis derived from the main hypothesis XXXX of the study and shows the effect of Leadership approach in education on Leadership Decision-making. It is clear that there is a positive and statistically significant effect (p < 0.001).

(β=0.740 وt=10.261 و P-Value =0.001) where an increase in Leadership approach in education by one unit leads to an increase in Leadership Decision-making by (0.740) units.

|  |  |  |  |
| --- | --- | --- | --- |
| **Squared Multiple Correlations** | | Estimate | Note |
| yy1 | Leadership Decision-making | 0.548 | It is estimated that the predictors of yy1 explain 54.8 percent of its variance. In other words, the error variance of yy1 is approximately 45.2 percent of the variance of yy1 itself. |
| yy2 | Leadership Communication | 0.492 | It is estimated that the predictors of yy2 explain 49.2 percent of its variance. In other words, the error variance of yy2 is approximately 50.8 percent of the variance of yy2 itself. |
| yy3 | ISO 21001:2018 Application | 0.058 | It is estimated that the predictors of yy3 explain 5.8 percent of its variance. In other words, the error variance of yy3 is approximately 94.2 percent of the variance of yy3 itself. |
| yy4 | Impact of Leadership Approach | 0.230 | It is estimated that the predictors of yy4 explain 23 percent of its variance. In other words, the error variance of yy4 is approximately 77 percent of the variance of yy4 itself. |

**Difference between groups for study variables:**

**Mann-Whitney Test**

**For testing the difference between two groups (male and female)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| sex | | N | Mean Rank | Z | p\_value |
| Leadership Decision-making | Male | 52 | 45.38 | -0.387 | 0.699 |
| Female | 36 | 43.24 |
| Leadership Communication | Male | 52 | 46.20 | -0.755 | 0.450 |
| Female | 36 | 42.04 |
| ISO 21001:2018 Application | Male | 52 | 47.84 | -1.486 | 0.137 |
| Female | 36 | 39.68 |
| Impact of Leadership Approach | Male | 52 | 46.33 | -0.831 | 0.406 |
| Female | 36 | 41.86 |
| Leadership Approach in Education | Male | 52 | 45.88 | -0.608 | 0.543 |
| Female | 36 | 42.51 |

**Kruskal-Wallis Test**

**For testing the difference between more than two groups age groups and education level**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Age groups | | N | Mean Rank | Chi2 | p\_value |
| Leadership Decision-making | 18-24 | 5 | 29.20 | 1.703 | 0.427 |
| 25-34 | 24 | 29.69 |
| 35-44 | 36 | 35.74 |
| Leadership Communication | 18-24 | 5 | 18.70 | 3.819 | 0.148 |
| 25-34 | 24 | 31.71 |
| 35-44 | 36 | 35.85 |
| ISO 21001:2018 Application | 18-24 | 5 | 31.00 | 0.430 | 0.806 |
| 25-34 | 24 | 34.96 |
| 35-44 | 36 | 31.97 |
| Impact of Leadership Approach | 18-24 | 5 | 27.40 | 1.744 | 0.418 |
| 25-34 | 24 | 30.21 |
| 35-44 | 36 | 35.64 |
| Leadership Approach in Education | 18-24 | 5 | 21.60 | 2.058 | 0.357 |
| 25-34 | 24 | 33.13 |
| 35-44 | 36 | 34.50 |

* **Chi2 calculated at Df=2**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Educational | | N | Mean Rank | Chi2 | p\_value |
| Leadership Decision-making | Bachelor's Degree | 56 | 41.23 | 2.577 | 0.276 |
| Master's Degree | 15 | 51.20 |
| Doctorate Degree | 17 | 49.35 |
| Leadership Communication | Bachelor's Degree | 56 | 40.01 | 5.747 | 0.056 |
| Master's Degree | 15 | 57.00 |
| Doctorate Degree | 17 | 48.26 |
| ISO 21001:2018 Application | Bachelor's Degree | 56 | 46.97 | 2.618 | 0.270 |
| Master's Degree | 15 | 35.07 |
| Doctorate Degree | 17 | 44.68 |
| Impact of Leadership Approach | Bachelor's Degree | 56 | 44.63 | 0.594 | 0.743 |
| Master's Degree | 15 | 40.70 |
| Doctorate Degree | 17 | 47.44 |
| Leadership Approach in Education | Bachelor's Degree | 56 | 41.52 | 2.846 | 0.241 |
| Master's Degree | 15 | 53.83 |
| Doctorate Degree | 17 | 46.09 |

* **Chi2 calculated at Df=2**

The Chi-squared value was calculated at 2 degrees of freedom (number of groups - 1).