# Table Of Contents

**Page No**

## Chapter 1.

### Introduction

1.1.0. Background 01  
1.2.0. Significance of the study 05  
1.3.0. Specific objectives of the study 07  
1.4.0. Organization of the study 08

## Chapter 2.

### IT-Concepts, Developments & Impact on Management 16

2.01 Introduction 16

### Section 1

#### Information Technology and its Developments 17

2.1.1 Definition of Information Technology 17  
2.1.2 Information Technology Developments 19  
2.1.2.1 Historical Developments 19  
2.1.2.2 Recent Developments 23

### Section 2

#### Organizational Performance and its Assessment 28

2.2.1 Defining Organizational Performance 28  
2.2.2 Assessment of Organizational Performance 29  
2.2.2.1 Defining Management Efficiency 29  
2.2.2.2 Types of efficiency 31  
2.2.2.3 Measuring Efficiency 32  
2.2.2.4 Defining Management Effectiveness 33  
2.2.2.5 Approaches for Assessing Org. Effectiveness 33  
2.2.2.5.1 System Resource Assessment 34  
2.2.2.5.2 Internal Process Assessment 34  
2.2.2.5.3 Goal assessment 34  
2.2.2.5.4 Strategic Constituency Assessment 35  
2.2.2.6 Comparison of Approaches of Effectiveness 35  
2.2.2.7 Relationship between Efficiency and Effectiveness 36
# Table Of Contents

## Section 3

**Information Technology And Organizational Performance**  
38

2.3.1 IT Impact on Management Performance: An Overview 38

2.3.2 IT and business process reengineering 42
  2.3.2.1 IT as Strategic Weapon 42
  2.3.2.2 IT and Organization Reengineering 44
  2.3.2.3 IT and Organization Transformation 46
  2.3.2.4 IT and Innovations 47
  2.3.2.5 IT and Social & Economic Changes 48

2.3.3 IT and Management functions 51
  2.3.3.1 IT and Planning 52
  2.3.3.2 IT and Organizing 52
  2.3.3.3 IT and Leading 56
  2.3.3.4 IT and Control 57

2.3.4 Information Systems and Manager 59
  2.3.4.1 Operational Level Systems 59
  2.3.4.2 Knowledge Level Systems 59
  2.3.4.3 Management Level Systems 59
  2.3.4.4 Strategic Level Systems 60
  2.3.4.5 Transaction Processing Systems 61
  2.3.4.6 Office Automation Systems 62
  2.3.4.7 Management Information Systems 62
  2.3.4.8 Decision Support Systems 63
  2.3.4.9 Executive Support Systems 66

2.4.0 Conclusions 67

## Chapter 3.

**Information Technology in Pakistan** 79

3.01 Introduction 79

**Section 1**

**Information Technology status in Pakistan** 80

3.1.1 Historical Developments 80
3.1.2 Recent Developments 83
# Table Of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Title</th>
<th>Page No</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1.3</td>
<td>Pakistan Information Technology Infrastructure</td>
<td>86</td>
</tr>
<tr>
<td>3.1.3.1</td>
<td>Hardware Industry in Pakistan</td>
<td>87</td>
</tr>
<tr>
<td>3.1.3.2</td>
<td>Software Industry in Pakistan</td>
<td>88</td>
</tr>
<tr>
<td>3.1.4</td>
<td>Internet Status in Pakistan</td>
<td>91</td>
</tr>
<tr>
<td>3.1.5</td>
<td>E-Commerce Status in Pakistan</td>
<td>93</td>
</tr>
<tr>
<td>3.1.6</td>
<td>Telecommunication Status in Pakistan</td>
<td>96</td>
</tr>
<tr>
<td>3.1.7</td>
<td>International Communication: Internet Infrastructure</td>
<td>101</td>
</tr>
<tr>
<td>3.1.8</td>
<td>IT Human Resources Status in Pakistan.</td>
<td>103</td>
</tr>
<tr>
<td>3.1.9</td>
<td>Conclusions</td>
<td>106</td>
</tr>
<tr>
<td></td>
<td><strong>Section 2</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>IT in Banking and Manufacturing Organization</strong></td>
<td>108</td>
</tr>
<tr>
<td>3.2.0</td>
<td>General</td>
<td>108</td>
</tr>
<tr>
<td>3.2.1</td>
<td>IT in Banking Organization</td>
<td>110</td>
</tr>
<tr>
<td>3.2.1.1</td>
<td>Banking Sector Of Pakistan &amp; IT: An Overview</td>
<td>115</td>
</tr>
<tr>
<td>3.2.2</td>
<td>IT in Manufacturing Organization</td>
<td>119</td>
</tr>
<tr>
<td>3.2.2.1</td>
<td>Manuf.Sector of Pakistan &amp; IT: An Overview</td>
<td>121</td>
</tr>
<tr>
<td>3.3.0</td>
<td>Conclusions</td>
<td>123</td>
</tr>
<tr>
<td></td>
<td><strong>Chapter 4.</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Factor Affecting Information Technology Adoption</strong></td>
<td>131</td>
</tr>
<tr>
<td>4.1.0</td>
<td>Introduction</td>
<td>131</td>
</tr>
<tr>
<td>4.1.1</td>
<td>Cultural factors</td>
<td>132</td>
</tr>
<tr>
<td>4.1.2</td>
<td>Human factors</td>
<td>137</td>
</tr>
<tr>
<td>4.1.3</td>
<td>Social factors</td>
<td>140</td>
</tr>
<tr>
<td>4.1.4</td>
<td>Organizational structural factors</td>
<td>142</td>
</tr>
<tr>
<td>4.1.5</td>
<td>Political factors</td>
<td>144</td>
</tr>
<tr>
<td>4.1.6</td>
<td>Economic factors</td>
<td>146</td>
</tr>
<tr>
<td>4.2.0</td>
<td>Conclusions</td>
<td>147</td>
</tr>
<tr>
<td></td>
<td><strong>Chapter 5.</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Research Model</strong></td>
<td>154</td>
</tr>
<tr>
<td>5.1.0</td>
<td>General</td>
<td>154</td>
</tr>
<tr>
<td>5.1.1</td>
<td>Propositions Derivations</td>
<td>157</td>
</tr>
<tr>
<td>5.2.0</td>
<td>Conclusions</td>
<td>158</td>
</tr>
</tbody>
</table>
# Table Of Contents

## Chapter 6.

**Research Methodology**

- 6.1.0 General 159
- 6.2.0 Objective of Research 161
- 6.3.0 Collection of Information 162
- 6.4.0 Methods for collection of data 162
  - 6.4.1 Methods to collect secondary data 162
  - 6.4.2 Methods to collect primary data 164
- 6.5.0 Data Limitation 169
- 6.6.0 Sample Size 171

## Chapter 7.

**Data Analysis And Interpretation**

- 7.1.0 General 176
- 7.2.0 Data Analysis Methods 176
- 7.3.0 Analysis Of Research Hypothesis No 1 178
- 7.4.0 Analysis Of Research Hypothesis No 2 201
- 7.5.0 Analysis Of Research Hypothesis No 3 210
- 7.6.0 Analysis Of Research Hypothesis No 4 225
- 7.7.0 Analysis Of Research Hypothesis No 5 229
- 7.8.0 Analysis Of Research Hypothesis No 6 233
- 7.9.0 Overall Conclusions of all Hypothesis 234

## Chapter 8.

**Findings, Recommendations And Conclusions**

- 8.1.0 General 240
- 8.2.0 Major findings 240
- 8.3.0 Recommendations 246
- 8.4.0 Overall Conclusions 258
- 8.5.0 Directions for future research 259

## Appendices

- i-xxxvii