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Biblical Leadership at Work Scale Development

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ABSTRACT: The faith at work movement began in the 1980s (Miller, 2007) and has been growing at a fast pace in recent years, but most of the work done in these fields has been religion neutral. Scholars have postulated that leadership based on the Bible would be divisive and produce negative results for the organization, but no studies have been performed to actually support those assertions (Hicks, 2002). The purpose of this study was to develop a new theory of biblical leadership and a scale that may be used to study it. A thorough review of previous research on leadership and the Bible resulted in a theory of biblical leadership that is multidimensional as it integrates the following four components: (a) relationship with God, (b) relationship with man, (c) completing the mission, and (d) organizational relationship skills. All four of the factors of the scale were studied through a principal component factor analysis and an item analysis that utilized bivariate correlations. Reliability was measured by utilizing Cronbach's alpha (.920 for the entire scale) and a test-retest method of analyzing internal consistency. The research in this study indicated that three of the four factors of the study are valid and reliable to measure biblical leadership, but several of the items need to be examined further. There is a need to build upon this study to strengthen the scale so that a strong, reliable, and valid instrument is fully developed to enable the research necessary to examine the effectiveness and outcomes of biblical leadership.

INTRODUCTION

In 1960, then-presidential candidate John F. Kennedy met with a group of evangelical pastors in Texas and deliberately distanced himself from his faith by explaining that his religious views were his own private affair and should not be referenced in the workplace or in politics (Seitz, 2010). This event in Texas was a turning point in American culture and its organizations as the distinction between spirituality and work began to grow deeper, until it reached its deepest point in the early 1980s (Seitz, 2010). It was at this time that the faith at work movement began in an attempt to bridge the growing gap businesspeople felt between their work during the week and their church experiences on Sunday mornings (Miller, 2006).

Miller (2003) explained that the church has not done much to help Christians express and live out their faith in the workplace, thereby bringing about a desperate need for a new theoretical framework that incorporates faith in the workplace. It is absolutely critical to understand that this new and needed framework about which Miller writes is not something that can simply be implanted into organizations as it is developed by researchers. The

starting place for developing a framework that will be sustainable and credible is grassroots in nature and will organically develop as Christians who are already in the workplace commit to live out and apply their faith in every facet of their endeavors at work.

The construct of Biblical leadership that is developed in this article integrates past research on faith at work, spiritual leadership, authentic leadership, servant leadership, and the Bible. Three principle differences make the construct of Biblical leadership that is developed in this article unique: (a) many faith at work and spiritual leadership theories and scales are religion neutral (Lynn, Naughton, & VanderVeen, 2009), yet this construct and scale is uncompromising in its commitment to Christianity and the Bible, (b) Jesus' teachings reflected His belief that leadership does not find its true basis in positional authority as leadership can be displayed from any position in an organization, and (c) some of the measures in the Biblical Leadership at Work scale intentionally focus on the alignment of Biblical principles and behaviors in the workplace because this scale and construct emphasize the importance of authentic leaders whose base of

leadership is built upon Biblically based behaviors that must be manifested in the workplace.

Political correctness and the current theme of relativism have caused many Christians to be reluctant to openly share their faith and proclaim the fundamental principles of the Bible to their co-workers, especially core tenets of Christianity that explain that Jesus is the only way in which a person may be saved (Majdali, 2003; John 14:6). Jesus made it very clear in His teachings that are recorded in the Bible that people in the world will not respect Christians as He stated that “everyone will hate you because of me” (Luke 21:17). In spite of the knowledge that many people in the world will reject Christianity, God still desires that Christians live out their faith daily and tell others about the Gospel everywhere: at work, in their neighborhoods, and around the world (Matthew 28:18-20). There is a need for Christian leaders in secular organizations to demonstrate Biblical leadership as they live out their faith on a daily basis.

Christians who exhibit Biblical leadership in the secular workplace must have a clear understanding of their purpose and mission at work, as well as the power that God gives them to complete their work (Strawbridge, 2009). The power and authority that God bestows to humans through the Holy Spirit is not granted to only those who are brilliant or possess certain personal qualities, but it is given to Christians who seek God and recognize that He is the Provider and Sustainer of all things (Lawrence, 1987). Therefore, God and the Bible form the firm foundation upon which the theory of Biblical Leadership must be built.

The theory of Biblical leadership that is proposed in this article is intended to be one that helps advance the Kingdom of God and results in organizational effectiveness. This article reviews the process that has taken place at this point to create a Biblical Leadership at Work Scale so others might build on it and not repeat the errors in design that are detailed in the article. A reliable and valid instrument will enable researchers to examine the effectiveness and outcomes of Biblical leadership.

VALIDATION OF THE BIBLICAL LEADERSHIP AT WORK SCALE

The Biblical Leadership at Work Scale emerged from an extensive review of existing theory and literature that relates to leadership, faith at work, and Biblical studies. Each factor included in the scale is unique and distinct from the other factors, but together they form the basis for the new theory of Biblical leadership. A nine-member panel that was comprised of various professors throughout the country who teach at Christian colleges and universities reviewed the initial Biblical Leadership at Work Scale for face validity. The panel members provided important feedback and insights for the scale and its development which resulted in some modifications of constructs, an addition of items, and an increased number of reverse-scoring items.

Next, a pilot study was conducted on an initial 60 item scale that included four main categories of Biblical Leadership: (a) dependence on God, (b) kingdom relationships, (c) kingdom attributes, and (d) kingdom ethics. After a preliminary review, the 30 items from the initial 60-item scale that had the lowest standard deviation and the highest inter-item correlation with another item in the subsection were utilized in the factor analysis for the pilot study. A rotated factor matrix in a five-factor solution was utilized because that is what the scree plot indicated. The Kaiser-Meyer-Olkin test revealed that the sample adequacy was acceptable (.692) and Bartlett’s sphericity test highly significant ($p < .001$). Four of the five components had acceptable Cronbach Alpha values as they ranged from .744 to .848. The fifth component, which consisted of the items on humility, was not acceptable as it was .388. Therefore, the first four components of the Biblical Leadership at Work Scale may be considered as reliable.

As a result of the factor analysis of the pilot study, the Biblical Leadership at Work Scale was modified to the following four components: (a) relationship with God, (b) relationship with man, (c) completing the mission, and (d) organizational relationship skills. From the literature, it seems like humility should fit in either the second category of relationship with man or the fourth category of organizational relationship skills (Goldsmith, 2009; Lawrence, 1987), but the pilot study’s factor analysis did not reveal a clear relationship in either component. The objective of this research is to

utilize the latest research and literature to build strong support for the concept of Biblical leadership and utilize the data gained from the pilot study to build a reliable and valid scale to measure Biblical Leadership at Work.

BIBLICAL LEADERSHIP FACTORS

Biblical leadership is very different from the spiritual leadership that has been described in scholarly literature (Gangel, 2005), and the difference must be clearly established to help Christian leaders understand how they should lead. Majadali (2003) expects that a new form of leadership based on the Bible will not develop in the mainstream but from the fringes as it will look more like a grassroots movement. The four main factors of Biblical leadership are: (a) relationship with God, (b) relationship with man, (c) completion of the mission, and (d) organizational relationship skills.

Relationship with God

Biblical leaders need to be dependent on God in every area of their lives (Strawbridge, 2009, 1 Timothy 3:1-10; Titus 1:5-9). Even though the current culture celebrates independence, this dependence on God through a strong relationship with Him should not be considered something negative (1 John 3:1a; Matthew 6:26). This dependence on God can help the leader be stronger spiritually, which can help the leader through stressful and challenging situations (Parameshwar, 2005; Fry, Hannah, Noel, & Walumbwa, 2011).

Decisions

Nichols (2010) stated that Christians should pray and ask God for wisdom when they are making decisions at work (Proverbs 3:5-6). Unfortunately, Nichols found that many business owners who are evangelical Christians separate their work from their faith as they do not pray, fast, or seek a pastor's counsel when making important decisions at work. Furthermore, Nichols found that Christian businesspeople have created a distinct separation between their lives on Sunday morning at church and their work, as many Christians do not ask God about the decisions that they make at work. A new type of leadership must emerge through which leaders are uncompromising in their beliefs in the Bible and base their thinking and decisions in God (Majadali, 2003). Christian leaders

in secular organizations need their leadership to reflect an integrated view of work that does not separate their spiritual life and their secular work.

Authority

Strawbridge (2009) explains that Christian leaders need to have clear understandings of their mission on earth and the power that they possess in Christ. The Holy Spirit's empowerment and authority is not reserved for people with a certain personality type; it is for all who seek Him and recognize that all authority in the world is found in God (Lawrence, 1987) who is the source of all power (Strawbridge, 2009; Kretzschmar, 2002; Matthew 16:17-19). The authority of a Christian leader does not come from either the person or position, but from God, as it has been given by Jesus (Dean, 2009; Matthew 28:18). Leadership is not based on a position but on the actions and life of the leader.

Purpose

The purpose of the Christian leader is to seek the goals of Jesus Christ in everything that they do (Lawrence, 1987). This means that Biblical leadership is radically different from many leadership theories that promote personal success. The purpose of serving God at work is not to gain status but to focus on completing the necessary tasks and services for the glory of God (Clarke, 1992; John 15:16a; Colossians 3:23). The motivation of Christians to work hard and make a difference increases as they understand their purpose from God's perspective (Fry, Hannah, Noel, & Walumbwa, 2011).

Spiritual Dimension of Life

Biblical leadership is built upon the premise that "a higher power or being affects the way in which one operates in the world" (Fry, 2003, p. 705). Fry (2003) defines this higher power as the God who is proclaimed in the Bible. The reality is that there is a spiritual dimension of life that cannot be seen or heard by man (Rice, 2007). This spiritual dimension, though not seen by human eyes, is very real, and God's presence and power is alive and active in the world that is seen. An awareness of the spiritual dimension of life can create hope and confidence as well as empower Christians to be God's agents of healing, peace and justice on earth in every situation (Rice, 2007). The spiritual dimension of

life is one that has received little attention in the past, but it is a very important part of Biblical leadership.

Relationship with Man

Biblical leadership does not equate leadership with positions and authority. Biblical leaders should not lead because they are hungry for authority. Instead, Biblical leaders understand that their actions and influence should be used to help the organization and the followers (1 Peter 5:2-3). There are six main components regarding relationship with man:

(a) integrity, (b) trust, (c) diligent, (d) love/shepherding, (e) ethics and morality, and (f) humility.

Integrity

A leader's values, which derive from the leader's hope and faith in God (Freeman, 2011), are the basis for integrity, which is essentially one's behavior when no other person is watching (Proverbs 10:9). Integrity is an important component of Biblical leadership because it "serves as a magnet to draw others who listen and respond to the leader" (Lawrence, 1987, p. 320). Christian leaders are called by God to be holy (Lynn, et al., 2009), making this issue of integrity important in both the eyes of God and the eyes of followers. Additionally, Kriger and Hanson (1999) suggest that honesty and truthfulness are appropriate to measure one's status of spirituality.

Trust

Trust is an important part of Biblical leadership as it is built upon authentic relationships that do not abuse power (Kretzschmar, 2002). Biblical leaders must have a good reputation with their co-workers and followers because that is the starting point for a strong relationship (Proverbs 22:1). In attempt to find which dispositions were the most vital in developing leaders, Wasonga and Murphy (2007) determined that of the seven dispositions they examined, collaboration, active listening, and trust were the most important (Wasonga & Murphy, 2007). Therefore, these three elements are very important in the development of employees. Fry (2005) suggests that spiritual leaders should cultivate a trusting relationship with followers that increases their intrinsic motivation and commitment which, in turn, helps the organization.

Diligence

Paul wrote in 2 Timothy 2 that Christian leaders should be like a farmer, workman, or a vessel who is continually being formed and working hard (Hiebert, 1976). 1 Timothy 2:15 instructs believers to "be diligent to present yourself approved to God as a workman who does not need to be ashamed, handling accurately the word of truth." A leader who lacks diligence will not remain a leader (Proverbs 20:4).

Love/Shepherding

Christian leaders' lives should be marked by love, showing evidence of God's love for them and their love for others (Strawbridge, 2009, 1 John 4:16; 1 John 3:10). Sanders (1994) described the master principle of leadership as not coaxing other people to serve the leader but actually loving and serving those who are being led (1 Corinthians 13:4-8). One of the primary aims of Christian leaders is to love and serve others (Strawbridge, 2009; Matthew 20:28; 1 Peter 5:3). This is contrary to the world's very low, and sometimes inexistent, moral standard for leaders.

Ethics & Morality

Kretzschmar (2002) explained that Christian leaders need to have spiritual and moral formation in their personal lives so that they are able to lead with competence and honesty. This formation must focus on developing an understanding of authority and power, learning how to empower other believers, and also learning how to develop moral character (Kretzschmar, 2002). Biblical leadership has some similarities with ethical leadership, specifically where ethical leadership focuses on the moral dimensions of leaders, such as honesty and trustworthiness (Brown & Mitchell, 2010). Leadership theories have focused on the leader's ability to inspire followers and cast a vision, but a leader's actions, the way in which they behave ethically, are the most important (Reave, 2005; Micah 6:8b).

Humility

Paul described leaders as humble servants and critiques the boastful leadership who were loud and arrogant in Corinth at the time (Welborn, 2008; 1 Cor 2:6; 1 Cor 3:3-4). Leaders must be humble, shepherding and leading willingly without being selfish (Crowther, 2011; Acts 20:17-26). The Bible teaches that leaders who seek success and desire to be first will be last as God

brings down the proud and exalts those who are humble (Ogereau, 2009; Matt 19:30, Luke 1:52).

Completing the Mission

Completing the mission component represents three main purposes that are many times thought to be separate in organizations: (a) vision for the organization to develop and flourish (Fry, 2003), (b) leaders who are good stewards of the resources and talents to which God has entrusted them (Luke 14:28), and (c) evangelism (Strawbridge, 2009). A Biblical leader has the vision to grow the company and make an eternal difference by helping to bring more people to Christ through relationships at work.

Vision

Fry (2003) stated that spiritual leadership's purpose "is to create vision and value congruence across the strategic, empowered team, and individual levels and, ultimately, to foster higher levels of organizational commitment and productivity" (p. 693). Biblical leadership should encourage followers to utilize their faith and hope in God, creating a higher calling in their work to serve God (Freeman, 2011). This vision should help followers feel a sense of calling that their life and actions at work can make a real difference in the world (Fry, 2003; Proverbs 28:19).

Stewardship

Christian leaders must focus on others while developing followers (Strawbridge, 2009; Ephesians 4:12-16). Followers who are healthy at a spiritual level and understand their work as an opportunity to serve God have higher levels of organizational commitment and performance (Fry, Hannah, Noel, & Walumbwa, 2011). In the same way that Christians are to be good stewards of the people in their care, they are also expected to be responsible and trustworthy stewards of the material resources of an organization (Luke 12:42-46).

Evangelism

The issue of evangelism is one of the main reasons that the creators of the spiritual leadership theory decided to make it open to people of all faith traditions because of its potential to be so divisive (Benefiel, 2005). Fry, Vitucci, and Cedillo (2005) explained that:

Viewing workplace spirituality through the lens of religious traditions and practice can be divisive in that, to the extent that religion views itself as the only path to God and salvation, it excludes those who do not share in the denominational tradition and often conflicts with the social, legal, and ethical foundations of business and public administration. (p. 859)

The evangelistic element of Biblical leadership may be divisive in some ways, but Christians need to follow Scripture and put God's mission of sharing the Gospel first. It is important for Christians to always share the Gospel with gentleness and respect (1 Peter 3:15).

Organizational Relationship Skills

Relational skills within the workplace have not included the spiritual and Biblical dimension that help explain and show how Christians should share life and live with one another (Grant, 2011). This is yet another result of the division that has been made between business during the week and one's church life on Sundays (Miller, 2003). Two organizational relationship skills, submissiveness and peacemaking, are countercultural in many ways, but they are the keys needed to unlock Biblical leadership, especially in a secular environment.

Submissiveness

Americans practice their faith in such an isolated and personal manner that they view interactions with others on a spiritual level to be unnecessary (Grant, 2011). Submission to God is a key to power for a Christian (Lawrence, 1987), as it is very important for Biblical leaders to submit to their leaders (Hebrews 13:17).

Peacemaking

One of the important dimensions of Christianity in the workplace is its call to community and holiness (Lynn et al., 2009). God desires peace on earth, and the Biblical leader helps to bring that peace to organizations and relationships (James 3:17). This is an overlooked factor that is an important part of a Biblical leader's witness at work.

A Model of Biblical Leadership

This model of leadership is expected to positively correlate with all of the desirable outcomes of leadership. This is expected not because it is a brand new theory that was developed by a brilliant researcher, but because its origin is found in Scripture, God's Holy Word, which possesses great wisdom and knowledge. Biblical leadership is very different from servant leadership, which has been accepted by Christians as an ideal form of leadership without critical examination (Niewold, 2007). First, Biblical leadership is multi-dimensional in its nature as it digs deeper into the most important leadership factors. Second, servant leadership puts the needs of the follower first (Greenleaf, 1977), while Biblical leadership reflects the notion that while Jesus cared for and treated his followers well, the needs of his followers never came before the Kingdom of God (Van Doren, 1981; Luke 9:57-62; Hebrews 11:13). In a similar manner, there are times that followers should be asked to make sacrifices for the overall health of the organization.

METHOD OF TESTING AND VALIDATING THE INSTRUMENT

The Biblical Leadership at Work Scale was administered to a random sample of Christians who work for secular organizations. A secular organization is one that is not considered a religious organization and may be for-profit or not-for-profit. Because the Biblical Leadership at Work Scale states that leadership does

not relate to one's position, employees at all levels may complete the scale. The scale was to be accompanied by six additional questions regarding gender, ethnicity, position, years of work with the organization, religious affiliation, and strength of Christian belief.

Data Collection Procedure

The scale was administered through SurveyGizmo, a web-based survey site. All of the participants were invited to participate on a purely voluntary basis through an email or Facebook invitation. Each participant was assured of their anonymity and SurveyGizmo was configured so that it will not capture the IP address of the respondents. However, the participants were asked to present their email addresses so that they could receive the retest via email and also link their test to their retest.

RESPONDENT SAMPLE DEMOGRAPHY

Of the 291 persons who completed the Biblical Leadership at Work survey, 243 were usable. The 48 surveys were discarded because the participant either worked for a Christian organization or indicated that they were not a Christian. The 243 participants who completed acceptable surveys were sent an email invitation to participate in the re-test portion of the study ten days after they initially submitted the survey and 165 completed the re-test. Table 12 provides the respondent demographics.

Table 1: Respondent Sample Demography (N = 243)

Variable	Frequency	%
Age		
18-30	42	17.3%
31-45	92	37.9%
46-60	75	30.9%
61-75	34	14.0%
Gender		
Male	126	51.9%
Female	117	48.1%
Full-Time Work Experience (Years)		
0-9	50	20.6%
10-25	102	42.0%
26 or more	91	37.4%
Number of Employees who Report Directly to Participant		
0	143	58.8%
1-9	77	31.7%
10 or more	23	9.5%
Church Related Activities and Events Normally Attended per Month		
0	10	4.1%
1-3	39	16.0%
4-6	87	35.8%
7 or more	107	44.0%
Religious Beliefs		
Christian	243	100%

DESCRIPTIVE STATISTICS

Table 2 presents the descriptive statistics for the respondent sample. The 50 questions have a range

of means between 4.47 and 6.68 and the standard deviation is greater than .695 for all of the items. Table 2 illustrates that many of the items are negatively skewed.

Table 2: Descriptive Statistics

BLWS Item	N	Min.	Max.	M	SD	Skewness	SE
1	243	1	7	5.77	1.364	-1.276	.156
2	243	1	7	6.35	1.216	-2.349	.156
3	243	1	7	5.73	1.477	-1.402	.156
4	243	1	7	6.14	1.015	-2.150	.156
5	243	1	7	6.13	1.032	-1.699	.156
6	243	1	7	6.07	1.450	-1.935	.156
7	243	1	7	6.05	1.385	-1.802	.156
8	243	1	7	6.68	.976	-4.220	.156
9	243	1	7	5.72	1.627	-1.399	.156
10	243	1	7	6.13	1.404	-1.999	.156
11	243	1	7	5.92	1.346	-1.613	.156
12	243	1	7	6.33	1.212	-2.276	.156
13	243	1	7	5.63	1.586	-1.207	.156
14	243	1	7	6.56	.797	-3.081	.156
15	243	1	7	6.60	.750	-2.981	.156
16	243	1	7	5.12	1.643	-.908	.156
17	243	1	7	6.61	.738	-3.147	.156
18	243	1	7	6.54	.863	-3.074	.156
19	243	1	7	6.52	.892	-2.885	.156
20	243	1	7	6.63	.695	-3.212	.156
21	243	1	7	6.54	.849	-3.020	.156
22	243	1	7	6.43	.954	-2.756	.156
23	243	1	7	6.48	.820	-2.685	.156
24	243	1	7	6.67	.759	-4.243	.156
25	243	1	7	6.22	.945	-1.584	.156
26	243	1	7	6.47	.906	-2.526	.156
27	243	1	7	6.18	.986	-2.056	.156
28	243	1	7	6.54	.878	-3.024	.156
29	243	1	7	6.22	1.156	-1.858	.156
30	243	1	7	6.17	1.053	-1.736	.156
31	243	1	7	5.67	1.167	-.890	.156
32	243	1	7	6.49	1.115	-3.078	.156
33	243	1	7	5.58	1.752	-1.127	.156
34	243	1	7	5.36	1.330	-.818	.156
35	243	1	7	5.26	1.230	-.726	.156
36	243	1	7	5.08	1.219	-.565	.156
37	243	1	7	5.53	1.406	-1.273	.156
38	243	3	7	6.10	.910	-1.101	.156
39	243	1	7	6.29	1.008	-1.946	.156

PRINCIPAL COMPONENTS FACTOR ANALYSIS

There are two stages in a factor analysis: factor extraction and factor rotation (Green & Salkind, 2007). In the initial stage, the number of underlying factors is determined and in the second stage of factor rotation the amount of variability amongst the variables for each factor is presented (Green & Salkind, 2007). A factor

analysis was conducted in this study by using the four factors of Biblical Leadership: (a) relationship with God, (b) relationship with man, (c) completing the mission, and (d) organizational relationship skills.

The Kaiser-Meyer-Olkin measure of sampling adequacy indicates that there was good participant sampling (.877). Bartlett's test of sphericity indicates that the correlation matrices are suitable for factor analysis because the significance is .000.

Table 3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.877
Bartlett's Test of Sphericity	Approx. Chi-Square	6498.727
	Df	1225
	Sig.	.000

Tables 4 through 11 display the factor loadings for un-rotated and rotated analyses for the four components: (a) relationship with God, (b) relationship with man, (c) completing the mission, and (d) organizational relationship skills. Kline (1993) states that factors that

have loadings that are less than 0.3 are weakly correlated and need to be rejected. The results indicated that items 5, 6, 16, 33, 40, 41, 42, 44, and 45 did not load well when the factors were rotated.

Table 4: Factor Loading for Relationship with God

Items	1	2
1	0.79	-0.374
2	0.834	0.013
3	0.832	-0.315
4	0.759	0.224
5	0.552	0.402
6	0.449	0.47
7	0.674	0.024
8	0.738	0.326
9	0.648	0.01
10	0.838	-0.129
11	0.79	0.025
12	0.783	0.124
13	0.532	-0.619

Note: Extraction Method: Principal Component Analysis. Two components extracted. MSA = .911, Bartlett $\chi^2 = 1909.329$, $p = .000$.

Table 5: Rotated Factor Loading for Relationship with God

Items	1	2
1	0.829	0.276
2	0.594	0.586
3	0.818	0.348
4	0.393	0.687
5	0.121	0.672
6	-0.001	0.65
7	0.47	0.484
8	0.307	0.746
9	0.461	0.456
10	0.694	0.487
11	0.553	0.565
12	0.48	0.631
13	0.812	-0.079

Note: Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in three iterations. MSA = .911, Bartlett $\chi^2 = 1909.329$, $p = .000$.

Table 6: Factor Loading for Relationship with Man

Items	1	2
14	0.693	-0.429
15	0.794	0.143
16	0.117	0.292
17	0.772	0.214
18	0.716	0.22
19	0.53	-0.034
20	0.801	-0.164
21	0.726	-0.283
22	0.721	-0.022
23	0.651	0.254
24	0.556	0.172
25	0.58	0.167
26	0.722	-0.295
27	0.582	-0.26
28	0.725	-0.405
29	0.406	0.565
30	0.457	0.287
31	0.45	0.385
32	0.394	-0.215
33	0.101	0.479

Note: Extraction Method: Principal Component Analysis. Two components extracted.
MSA = .896, Bartlett $\chi^2 = 2190.159$, $p = .000$.

Table 7: Rotated Factor Loading for Relationship with Man

Items	1	2
14	0.693	-0.429
15	0.794	0.143
16	0.117	0.292
17	0.772	0.214
18	0.716	0.22
19	0.53	-0.034
20	0.801	-0.164
21	0.726	-0.283
22	0.721	-0.022
23	0.651	0.254
24	0.556	0.172
25	0.58	0.167
26	0.722	-0.295
27	0.582	-0.26
28	0.725	-0.405
29	0.406	0.565
30	0.457	0.287
31	0.45	0.385
32	0.394	-0.215
33	0.101	0.479

Note: Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in three iterations.
MSA = .896, Bartlett $\chi^2 = 2190.159$, $p = .000$.

Table 8: Factor Loading for Completing the Mission

Items	1	2
34	0.725	-0.333
35	0.704	-0.423
36	0.639	-0.438
37	0.545	0.016
38	0.456	-0.241
39	0.542	-0.27
40	0.581	0.585
41	0.567	0.595
42	0.537	0.666
43	0.523	0.061

Note: Extraction Method: Principal Component Analysis. Two components extracted. MSA = .753, Bartlett $\chi^2 = 770.892$, $p = .000$.

Table 9: Rotated Factor Loading for Completing the Mission

Items	1	2
34	0.782	0.157
35	0.818	0.072
36	0.774	0.022
37	0.432	0.334
38	0.511	0.074
39	0.597	0.101
40	0.126	0.815
41	0.108	0.815
42	0.042	0.855
43	0.387	0.357

Note: Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in three iterations. MSA = .753, Bartlett $\chi^2 = 770.892$, $p = .000$.

Table 10: Factor Loading for Organizational Relationship Skills

Items	1	2
44	0.453	0.687
45	0.554	0.516
46	0.581	0.302
47	0.685	-0.319
48	0.632	-0.236
49	0.687	-0.322
50	0.704	-0.260

Note: Extraction Method: Principal Component Analysis. Two components extracted. MSA = .714, Bartlett $\chi^2 = 351.730$, $p = .000$.

Table 11: Rotated Factor Loading for Organizational Relationship Skills

Items	1	2
44	-0.002	0.822
45	0.176	0.736
46	0.317	0.573
47	0.747	0.113
48	0.657	0.152
49	0.751	0.111
50	0.731	0.172

Note: Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in three iterations. MSA = .714, Bartlett $\chi^2 = 351.730$, $p = .000$.

Tables 12 through 16 present the results of bivariate correlation analyses for the transformed data. Kline (1993) states that items should have a value over 0.30 to be included in the measure. Items 5, 6, 13 (see Table 12); items 19, 24, 25, 27, 29, 30, 31, 32, 33 (see Tables

13 and 14); items 38, 39, 43 (see Table 15); and items 46, 47, 48, 49, and 50 (see Table 16) do not meet this standard. When those items are removed from the correlation matrixes, the rest of the items correlate positively.

Table 12: Inter-item Correlation Matrix of Relationship with God

Items	1	2	3	4	5	6	7	8	9	10	11	12	13
1	—												
2	0.619	—											
3	0.782	0.711	—										
4	0.542	0.620	0.582	—									
5	0.353	0.477	0.376	0.515	—								
6	0.301	0.316	0.260	0.378	0.441	—							
7	0.445	0.474	0.464	0.475	0.276	0.157	—						
8	0.464	0.617	0.474	0.566	0.362	0.350	0.524	—					
9	0.409	0.461	0.425	0.424	0.226	0.140	0.629	0.465	—				
10	0.634	0.702	0.750	0.556	0.382	0.239	0.543	0.578	0.491	—			
11	0.568	0.571	0.629	0.565	0.332	0.391	0.472	0.612	0.499	0.620	—		
12	0.497	0.645	0.557	0.511	0.375	0.337	0.498	0.601	0.561	0.682	0.604	—	
13	0.645	0.391	0.549	0.273	0.214	0.193	0.260	0.146	0.249	0.416	0.398	0.303	—

Table 13: Inter-item Correlation Matrix of Relationship with Man-Part 1

Items	14	15	16	17	18	19	20	21	22	23	24	25	26
14	—												
15	0.465	—											
16	0.021	0.089	—										
17	0.394	0.717	0.049	—									
18	0.352	0.633	0.068	0.669	—								
19	0.348	0.443	-0.06	0.382	0.287	—							
20	0.618	0.544	0.115	0.527	0.434	0.404	—						
21	0.569	0.439	0.113	0.466	0.433	0.311	0.647	—					
22	0.425	0.556	0.066	0.566	0.516	0.34	0.601	0.526	—				
23	0.307	0.529	0.129	0.497	0.478	0.40	0.463	0.353	0.351	—			
24	0.295	0.446	0.045	0.421	0.325	0.301	0.45	0.295	0.354	0.432	—		
25	0.317	0.382	0.169	0.368	0.354	0.303	0.511	0.313	0.393	0.533	0.32	—	
26	0.599	0.492	0.017	0.482	0.528	0.306	0.519	0.573	0.465	0.326	0.267	0.282	—
27	0.515	0.397	0.132	0.294	0.261	0.256	0.423	0.423	0.402	0.313	0.282	0.299	0.577
28	0.719	0.504	-0.02	0.493	0.411	0.351	0.59	0.654	0.466	0.315	0.289	0.279	0.629
29	0.127	0.287	0.145	0.338	0.366	0.218	0.251	0.216	0.267	0.246	0.232	0.3	0.229
30	0.207	0.352	0.12	0.298	0.304	0.227	0.335	0.258	0.234	0.442	0.328	0.303	0.232
31	0.177	0.406	0.044	0.541	0.443	0.087	0.204	0.206	0.302	0.283	0.252	0.172	0.242
32	0.211	0.284	-0.1	0.214	0.261	0.165	0.419	0.368	0.252	0.189	0.135	0.265	0.281
33	-0.02	0.103	0.109	0.062	0.050	0.018	0.055	0.047	0.055	0.010	0.013	0.024	0.012

Table 14: Inter-item Correlation Matrix of Relationship with Man-Part 2

Items	27	28	29	30	31	32	33
27	—						
28	0.429	—					
29	0.136	0.108	—				
30	0.250	0.165	0.207	—			
31	0.151	0.283	0.240	0.237	—		
32	0.128	0.308	0.106	0.056	0.016	—	
33	0.002	0.025	0.473	0.034	0.139	0.081	—

Table 15: Inter-item Correlation Matrix of Completing the Mission

Items	34	35	36	37	38	39	40	41	42	43
34	—									
35	0.619	—								
36	0.782	0.711	—							
37	0.542	0.620	0.582	—						
38	0.353	0.477	0.376	0.515	—					
39	0.301	0.316	0.260	0.378	0.441	—				
40	0.445	0.474	0.464	0.475	0.276	0.157	—			
41	0.464	0.617	0.474	0.566	0.362	0.350	0.524	—		
42	0.409	0.461	0.425	0.424	0.226	0.140	0.629	0.465	—	
43	0.645	0.391	0.549	0.273	0.214	0.193	0.260	0.146	0.249	—

Table 16: Inter-item Correlation Matrix of Organizational Relationship Skills

Items	44	45	46	47	48	49	50
44	—						
45	0.365	—					
46	0.280	0.282	—				
47	0.099	0.265	0.242	—			
48	0.145	0.204	0.268	0.544	—		
49	0.156	0.194	0.246	0.342	0.265	—	
50	0.186	0.227	0.271	0.344	0.249	0.619	—

RELIABILITY ASSESSMENT

Chronbach's alpha is .920 for the raw data of the entire 50 item Biblical Leadership at Work scale and Chronbach's alpha based on standardized items is .932. When the 20 items with factor loadings less than 0.3 are removed, Chronbach's alpha is .899 and Chronbach's

alpha based on standardized items is .914. Essentially, the internal consistency is high for the instrument, with or without the items that are weakly correlated. Table 18 presents the Chronbach's Alpha for each component with and without the factor loadings that were less than 0.3.

Table 18: Chronbach's Alpha for Each Component

Component	Chronbach's alpha	<i>n</i>	Chronbach's alpha ^a	<i>n</i> ^a
Relationship with God	.913	13	.923	10
Relationship with Man	.860	20	.851	11
Completing the Mission	.775	10	.785	7
Organizational Relationship Skills	.414	7	.513	2

Note: ^aItems with factor loadings < 0.3 removed.

The factors associated with organizational relationship skills have very low factor loadings and have the greatest effect on internal consistency. The factors associated with completing the mission also are low and negatively affect the internal consistency of the scale.

Table 19 presents the bivariate correlations for the total score associated with each behavior subgroup. All of the correlations are significant at the 0.01 level.

Table 19: Correlations Between Components

Component	RG	RM	CM	OR
RG	—			
RM	0.568	—		
CM	0.454	0.416	—	
OR	0.409	0.344	0.347	—

Note: RG = Relationship with God, RM = Relationship with Man, CM = Completing the Mission, OR = Organizational Relationship Skills. N = 243. Correlation is significant at the 0.01 level (2-tailed).

To test more extensively the hypothesis that each component corresponds to a single latent factor (Biblical leadership) a principal component factor analysis was executed upon the subgroup correlation matrix. The

results that are displayed in Table 20 suggest that each component loads positively with the initial principal component.

Table 20: Factor Loading for Each Factor

Factor	1	2
Relationship with God	0.823	-0.165
Relationship with Man	0.784	-0.331
Completing the Mission	0.73	-0.133
Organizational Relationship Skills	0.672	0.732

Note: Extraction Method: Principal Component Analysis. Two components extracted. MSA = .749, Bartlett $\chi^2 = 364.617$, $p = .000$.

Test-Retest Reliability

One hundred and sixty-five persons participated in the test-retest study with 10 days between tests. The Pearson product-moment correlation for the test-retest total scores for the 50 item Biblical Leadership at Work scale was calculated to be .919 and Chronbach's alpha based on standardized items was .933. Kline (1993) proposes that the test-retest correlations must be above 0.80 for satisfactory reliability. The data indicates that the Biblical Leadership at Work scale does not meet this requirement as the completing the mission component ($r = .755$) and organizational relationship skills component ($r = .788$) are below the threshold that Kline recommends.

DETAILED DISCUSSION OF THE ITEMS IN SCALE

The study utilized principal components factor analysis because it was hypothesized that all of the items in the scale would be related to a single latent factor of Biblical leadership. According to Kline (1993), factors which have loadings that are less than 0.3 are weakly correlated and need to be rejected. The results indicated that items 5, 6, 16, 33, 40, 41, 42, 44, and 45 were all under this threshold when the factors were rotated.

An item analysis was also performed and the results of bivariate correlation for the transformed data indicated that 20 items (17 of which were already questionable according to the factor analysis) do not meet the criteria of having a value over 0.30 which Kline (1993) states items should have to be included in a scale. Items 5, 6,

13 (Relationship with God); items 19, 24, 25, 27, 29, 30, 31, 32, 33 (Relationship with Man); items 38, 39, 43 (Completing the Mission); and items 46, 47, 48, 49, and 50 (Organizational Relationship Skills) are the 20 items in question as a result of the bivariate correlation analysis, which suggested that those items do not have a significant positive correlation with the other items in their components. Therefore, all of those items should be considered for removal from the Biblical Leadership at Work scale. Because the scale was considered to have construct and face validity, all of these items need to be examined in more detail to determine if there are conceptual difficulties in the scale.

All five of the reverse code items are candidates (13, 32, 33, 43, 50) for removal. Netemeyer, Bearden, and Sharma (2003) stated that reverse code items often produce factor structures that are unexpected. Swain, Weather, and Niedrich (2008) also explain that reverse code items which include opposing meanings lead to miscomprehension. All five of the reverse code items in this scale are essentially exact copies of positive code items that have had the word rarely inserted to make them negative code items. It is recommended that all five of the reverse code items be deleted from the scale and that the scale have a random mix of questions that include the various factors throughout to ensure that the respondents do not find patterns easily as they complete the instrument.

A careful reflection on the data has found a prominent theme that may be the cause of some of the difficulties in the scale, which is the divide between a leader's religious life that seems to occur on Sunday and

a leader's life that occurs during the week (Miller, 2003). There is often a difference between the actual actions of Christian leaders in the workplace and their desire leadership (Romans 7:17-25). The inconsistencies that result from this type of a mindset are evidenced in the results of this study.

Relationship with God Factor

Items 5 and 6 are the two items that are questionable in the relationship with God factor and they are both in the authority subsection. These items had factor loadings that were less than 0.3 (.121 and -.001 respectively) and the item analysis that utilized bivariate correlation revealed that they both did not have a value over 0.3.

Items 5 and 6 are two of the three items that are in the subsection for authority. Strawbridge (2009) posited that Christian leaders need to understand their mission on earth and the power that God has bestowed upon them. It is interesting to note that item 4, which focuses on authority, did not have the validity issues, but it was more general in application as it simply states, "I act on what I believe God is telling me to do" (consistent with Scripture), whereas items 5 and 6 are sharper in tone through the use of the phrases "I will do it for sure" and "I never intentionally do anything." This is possibly due to the prevailing church culture in America that desires to follow God when it is convenient and therefore leads people to believe that in general they are following God (Malachi 1-3). However, when people are faced with strict language such as in items 5 and 6, they realize that their lives are not really being lived under the full authority of God. Items 5 and 6 are concerned with measuring a leader's submission and following the authority of God in their life.

It should be noted that Chronbach's alpha for the entire factor was .913, indicating that the internal consistency of the factor is very high when computed with the two questionable items that are discussed above. While the removal of some of these items would likely increase the internal consistency, it is still well above the 0.7 threshold that Kline (1993) recommends as adequate.

Relationship with Man Factor

Items 16, 19, 24, 25, 27, 29, 30, and 31 are questionable in the relationship with man factor. Item 16 was the only item in this list that had a factor loading

under .3 (.117). The item analysis that utilized bivariate correlation revealed that the other eight items in the list above did not have a value over 0.3.

Item 16 is one of three items that focus on integrity. The other two items on integrity had no issues, but this item goes beyond measuring the strength of integrity to determining if there is a noticeable difference between the integrity of the leader and their co-workers. The mean for the responses for Item 16 was 5.12, while the other two items for integrity had a mean of 6.56 and 6.60, indicating the difference in how the participants viewed the different aspects of integrity at work. The Bible clearly teaches that Christians lose their effectiveness when their lives are not considerably different from the lost with whom they interact on a regular basis (Matthew 5:13). Again, the prevailing culture in America has resulted in many apathetic Christians (Revelation 3:16). There must be a discernible difference between the integrity of a Biblical leader and their co-workers which is the reason why the item was included in the scale. Although this item did not load significantly with its factor it did correlate strongly to the other items in the factor. Item 19 was the only item in the trust subsection that did not correlate strongly with the other items in the factor. Because there are already two other items that focus on trust, it is recommended that this item be dropped from the scale.

Items 24 and 25 are perhaps the most troubling problems with the Biblical Leadership at Work scale as they focused on the love/ shepherding subsection for the relationship with man factor. Sanders (1994) explains that the most important principle of leadership is not directing people to follow but actually loving and serving the followers, which should be the primary goal of a Biblical leader (Strawbridge, 2009; Matthew 20:28; 1 Peter 5:3). Item 23 is the third item in the subscale for love/ shepherding and it focuses on the care that the leader has for co-workers whereas items 24 and 25 actually focus on the treatment and help that are actually given to the co-workers.

Item 27 was one of three items in the subsection for ethics and morality. A deeper analysis of this question reveals that this question is more difficult to read than the other items for ethics and morality. Also, because there are two ethics and morality items that closely measure the same construct, it is recommended that this item be dropped from the scale.

Items 29, 30, and 31 were all in the humility subsection and did not correlate strongly with the other items in the subsection. Leaders in the Western world are currently very similar to the loud, proud, and arrogant leaders in Corinth that the Apostle Paul critiques in 1 Corinthians 2-3 (Welborn, 2008). Scripture teaches that God brings down the proud and exalts the humble (Ogereau, 2009, Matt 19:30, Luke 1:52), but this is a difficult teaching for leaders to follow when the culture portrays humility as a weakness. Upon a deeper review, humility should be an integral part of Biblical leadership, but its items loaded poorly in the pilot study and the current study. Perhaps it should have its own factor.

Chronbach's alpha for the entire factor is .860, indicating that the internal consistency of the factor is still acceptable with the questionable items that are discussed above. While the removal of some of these items would likely increase the internal consistency, it is still well above the 0.7 threshold that Kline (1993) recommends as adequate.

Completing the Mission Factor

Items 40, 41, and 42, which are under the subscale of evangelism, had factor loadings under 0.3 (.126, .108, and .042 respectively) and items 38 and 39 had bivariate correlations under 0.3. The mean for these three items are the lowest out of all of the items in the entire scale (4.47, 4.70, and 4.83 respectively). The next lowest mean is 5.08 for item 36. This indicates that evangelism was the lowest subscale for the entire instrument. Therefore, Christians are praying for and witnessing to their co-workers at a very low level when compared to the other components of Biblical leadership. Christians have become reluctant to share their faith with co-workers due to the relativistic culture that proclaims universalism and mocks those who hold to the core tenet of Scripture that explains that Jesus is the only way in which a person may be saved (Majdali, 2003; John 14:6). Jesus told his disciples that the world will not look favorably upon people who follow Him (Luke 21:17), and this study seems to indicate that its participants are hesitant to tell others about Him.

Chronbach's alpha for this factor is .775, indicating that the internal consistency of the factor is still acceptable despite the numerous questionable items that are discussed above. While the removal of

some of these items would likely increase the internal consistency, it is still above the 0.7 threshold that Kline (1993) recommends as adequate.

Organizational Relationship Skills Factor

Items 44 and 45 had factor loadings under 0.3 (-.002 and .176 respectively) and the items 46, 47, 48, and 49 had bivariate correlations under 0.3. The entire factor for organizational relationship skills has serious validity issues that should be addressed. The two subsections for this factor are submissiveness and peacemaking. Upon further evaluation of this factor, it could be argued that these subsections face the same problem as the subsection for humility because all three of these subsections are clearly taught in the Bible as important, but are some of the key attributes that people in organizations believe are actually weaknesses that should be avoided. Grant (2011) posits that this happens because Americans practice their faith in such an isolated and personal manner that they view interactions with others on a spiritual level to be unnecessary. One of the important dimensions of Biblical leadership in the workplace is its emphasis on community and holiness (Lynn et al., 2009).

Additionally, Chronbach's alpha for this factor is .414, indicating that the internal consistency of the factor is not acceptable. While the removal of some of these items might increase the internal consistency, it is still well below the 0.7 threshold that Kline (1993) recommends as adequate. This is another indicator of the serious problems for the factor for organizational relationship skills. These subsections are difficult problems to address because while they are foundational Scriptural principles, they seem to be some of the main areas that leaders talk about on Sundays at church but forget about during the work week when they are leading others in organizations, thereby demonstrating the large disconnect between church and business (Miller, 2003).

RECOMMENDATIONS FOR THE BIBLICAL LEADERSHIP AT WORK SCALE

The data suggests that items 5, 6, 13 (Relationship with God); items 16, 19, 24, 25, 27, 29, 30, 31, 32, 33 (Relationship with Man); items 38, 39, 40, 41, 42, 43 (Completing the Mission); and items 44, 45, 46, 47, 48, 49, and 50 (Organizational Relationship Skills) did not

meet the necessary requirements to be included in the scale in their current condition. As mentioned earlier in the chapter, it is the opinion of this researcher that all five of the reverse code items be discarded. Additionally, it is recommended that items 19 and 27 be discarded as well. The other items found in the first three factors should be either reworded so that they are more precise, enabling a more desirable result, or thrown out. It would likely prove to be more beneficial to shorten the scale by simply throwing out some of those items by reducing each subsection from three items each to two items each.

The most problematic factor was the fourth factor, organizational relationship skills. While the Bible clearly teaches that Christians need to submit to authority and act as peacemakers, the current culture does not extol those actions and virtues. This is very problematic for this instrument, and it is the opinion of this researcher that one of the main reasons why Christians are not being salt and light at their places of work is because they lack humility, submissiveness, and peacemaking in their daily actions. While it would be easy to totally discard this factor, a possible solution might be to reduce the instrument to three factors and include submissive and peacemaking in the relationship with man factor.

It is important to note that all 50 items that were developed for this instrument were based upon previous literature and the Bible, and none of the 15 subsections that form the basis for the scale should simply be eradicated. Although the overall performance of the scale was not flawless, this study takes an important first step of establishing a new theory of Biblical leadership. It is recommended that the changes to the scale occur which would require an additional study to validate the instrument.

SUMMARY

The research in this study indicated that three of the four factors of the study are valid and reliable to measure Biblical leadership. However, it is recommended that many items need to be examined and changed in order to strengthen the instrument. This study was a pioneering endeavor that was begun with the goal of breaking new ground and developing a new theory of Biblical leadership. One of the limitations of this article is the way in which the major streams of leadership

literature were not able to be reviewed and incorporated due to space limitations.

Christians are increasingly dividing their spiritual life on Sundays from their work that takes place during the week (Miller, 2003), and this new leadership theory is critical to answering this large challenge in the church. Biblical leadership not only advances the Kingdom of God on Earth, but it is also the most productive manner of leading in an organization. A strong, reliable, and valid instrument needs to be developed as a next step from this study to enable the research necessary to examine the effectiveness and outcomes of Biblical leadership.

REFERENCES

- Benefiel, M. (2005). The second half of the journey: Spiritual leadership for organizational transformation. *The Leadership Quarterly*, 16, 723-747.
- Brown, M., & Mitchell, M. (2010). Ethical and unethical leadership: Exploring new avenues for future research. *Business Ethics Quarterly*, 20(4), 583-616.
- Clarke, A. D. (1992). Secular and Christian Leadership in Corinth. *Tyndale Bulletin*, 43(2), 395-398.
- Crowther, S. S. (2011). Integral Biblical leadership. *Journal of Biblical Perspectives in Leadership*, 3(2), 60-76.
- Dean, M. (2009). The contextualization debate: What about leadership? *Common Ground Journal*, 6(2), 38-46.
- Freeman, G.T. (2001) Spirituality and servant leadership: A conceptual model and research proposal. *Emerging Leadership Journeys*, 4(1), 120-140.
- Fry, L. W. (2003). Toward a theory of spiritual leadership. *The Leadership Quarterly*, 14(6), 693-727.
- Fry, L. W. (2005). Introduction to The Leadership Quarterly special issue: Toward a paradigm of spiritual leadership. *The Leadership Quarterly*, 16(5), 619-622.

- Fry, L. W., Hannah, S. T., Noel, M., & Walumbwa, F. O. (2011). Impact of spiritual leadership on unit performance. *The Leadership Quarterly*, 22, 259-270.
- Fry, L. W., Vitucci, S., & Cedillo, M. (2005). Spiritual leadership and army transformation: Theory, measurement, and establishing a baseline. *The Leadership Quarterly*, 16, 835-862.
- Gangel, K. O. (2005). Reviewing leadership: a Christian evaluation of current approaches. *Bibliotheca Sacra*, 162(646), 252-253.
- Goldsmith, M. (2009). The success delusion: why it can be so hard for successful leaders to change. *Journal Of Applied Christian Leadership*, 3(2), 83-91.
- Grant, B. (2011). Comparative leadership development: the cultural variable of self in spiritual transformation. *Missiology*, 39(2), 191-203.
- Green, S. B., & Salkind, N. J. (2007). *Using SPSS for Windows and Macintosh*. Upper Saddle River, NJ: Pearson Prentice Hall.
- Greenleaf, R. K. (1977). *Servant leadership: A journey into the nature of legitimate power and greatness*. New York, NY: Paulist Press.
- Hicks, D. A. (2002). Spiritual and religious diversity in the workplace: Implications for leadership. *The Leadership Quarterly*, 13, 379-396.
- Hiebert, D. (1976). Pauline images of a Christian leader. *Bibliotheca Sacra*, 133(531), 213-228.
- Jandaghi, G., Matin, H., & Farjami, A. (2009). Comparing transformational leadership in successful and unsuccessful companies. *International Journal of Social Sciences*, 4(3), 211-216.
- Karakas, F. (2010). Spirituality and performance in organizations: A literature review. *Journal of Business Ethics*, 94(1), 89-106.
- Kline, R. B. (2013). Exploratory and confirmatory factor analysis. In Y. Petscher & C. Schatschneider (Eds.), *Applied quantitative analysis in the social sciences* (pp. 171-207). New York: Routledge.
- Kohlberg, L. (1984). *The psychology of moral development*. New York: Harper & Row.
- Kretzschmar, L. (2002). Authentic Christian leadership and spiritual formation in Africa. *Journal of Theology for Southern Africa*, (113), 41-60.
- Kruger, M. P., & Hanson, B. J. (1999). A value-based paradigm for creating truly healthy organizations. *Journal of Organizational Change Management*, 12(4), 302-317.
- Lawrence, W. D. (1987). Distinctives of Christian leadership. *Bibliotheca Sacra*, 144(575), 317-329.
- Lynn, M. L., Naughton, M. J., & VanderVeen, S. (2009). Faith at work scale (FWS): Justification, development, and validation of a measure of Judaeo-Christian religion in the workplace. *Journal of Business Ethics*, 1-17.
- Majdali, K. (2003). Christian leadership in the twenty-first century: an Australian perspective. *Asian Journal of Pentecostal Studies*, 6(2), 265-281.
- Miller, D. W. (2006). *God at Work: The History and Promise of the Faith at Work Movement*. Oxford University Press, USA.
- Miller, D. W. (2003). The faith at work movement. *Theology Today*, 60(3), 301-310.
- Netemeyer, R. G., Bearden, W. O., & Sharma, S. (2003). *Scaling Procedures: Issues and Applications*. Newbury Park, CA: Sage Publications, Inc.
- Nichols, J. B. (2010). Salience of faith: The role of religious values and practices on strategic decision-making of Christian business owners. Dissertation abstract, Anderson University.
- Niewold, J. (2007). Beyond servant leadership. *Journal of Biblical Perspectives*, 2(1), 118-134.
- Ogureau, J. M. (2009). Apostolic authority and pastoral leadership in the Johannine Epistles. *Asian Journal of Pentecostal Studies*, 12(2), 210-230.
- Parameshwar, S. (2005). Spiritual leadership through ego-transcendence: Exceptional responses to challenging circumstances. *The Leadership Quarterly*, 16, 689-722.
- Reave, L. (2005). Spiritual values and practices related to leadership effectiveness. *The Leadership Quarterly*, 16(5), 655-687.
- Rice, G. (2007). Elijah's requirement for prophetic leadership (2 Kings 2:1-18). *Journal of Religious Thought*, 591-12.

- Sanders, O. (1994). *Spiritual Leadership*, Chicago, IL: Moody Publishers.
- Seitz, M. J. (2010). Check your faith at the door: The dilemma of the Catholic citizen. *The National Catholic Bioethics Center*, 687-693.
- Strawbridge, J. (2009). The word of the cross: Mission, power, and the theology of leadership. *Anglican Theological Review*, 91(1), 61-79.
- Swain, S. D., Weathers, D., & Niedrich, R. W. (2008). Assessing three sources of misresponse to reversed likert items. *Journal of Marketing Research*, 45 (1), 116-131.
- Van Doren, W. H. (1981). *The Gospel of Luke*. Grand Rapids, MI: Kregel.
- Walumbwa, F. O., Avolio, B. J., Gardner, W. L., Wernsing, T. S., & Peterson, S. J. (2008). Authentic leadership: Development and validation of a theory-based measure. *Journal of Management*, 34(1), 89-126.
- Wasonga, T., & Murphy, J. (2007). Co-creating leadership dispositions. *International Studies in Educational Administration (Commonwealth Council for Educational Administration & Management (CCEAM))*, 35(2), 20-32.
- Welborn, L. (2008). Secular and Christian leadership in Corinth: a socio-historical and exegetical study of 1 Corinthians 1-6. *Catholic Biblical Quarterly*, 70(1), 140-142.

APPENDIX A
BIBLICAL LEADERSHIP AT WORK SCALE

Relationship with God

- | | |
|----------------------------------|--|
| Decisions | 1. I regularly ask God for wisdom when I am at work.
2. I cannot make the best decisions at work without God's help.
3. I pray about decisions that I make at work. |
| Authority | 4. I act on what I believe God is telling me to do (consistent with Scripture).
5. If I believe that God is telling me to do something, I will do it for sure.
6. I never intentionally do anything at work that goes against God and His Word. |
| Purpose | 7. My work and interactions with work colleagues are eternally significant.
8. God cares about my work and relationships at work.
9. I feel like there is a great spiritual purpose and a higher calling in my work. |
| Spiritual Dimension of Life | 10. Prayer affects my work and organization.
11. The Holy Spirit actively guides me when I am at work.
12. There is a spiritual dimension of life that affects my work.
13(r). I rarely ask God for wisdom when I am at work. |
|
Relationship with Man | |
| Integrity | 14. My honesty and integrity is constantly strong, even when I am working alone, without oversight.
15. I believe my work colleagues consider me a person of integrity.
16. There is a stark difference between my integrity and the integrity of many of my co-workers (salt and light) |
| Trust | 17. I believe my work colleagues trust me.
18. My actions at work help my work colleagues to trust me.
19. I do not break the confidence of my work colleagues. |
| Diligent | 20. I pursue excellence at work.
21. I work very diligently for my organization.
22. I believe my work colleagues think that I am very diligent in my work. |
| Love/ Shepherding | 23. I genuinely care for my work colleagues.
24. I treat my work colleagues as I want to be treated.
25. I help my work colleagues at a personal and professional level. |
| Ethics & Morality | 26. I hold myself to the high moral standards of the Bible at work (I consider all stakeholders and would decide against an action that might be legal but not morally right).
27. My personal morals are always consistent with the Bible's teachings.
28. I obey all applicable laws at work (I am extremely ethical). |

- Humility
- 29. I share the praise when there are successes.
 - 30. I always want my work colleagues to succeed because I do not need to be recognized as the best.
 - 31. I believe my work colleagues consider me to be humble.
 - 32 (r). I rarely pursue excellence at work.
 - 33 (r). I rarely share the praise when there are successes.

Completing the Mission

- Vision
- 34. I am able to clearly articulate the vision that I have for my organization.
 - 35. I believe my work colleagues understand my vision for the organization.
 - 36. My co-workers follow and believe in my vision for the organization.

- Stewardship
- 37. I am using my full God-given potential at work.
 - 38. I manage my financial and personnel resources at work very well.
 - 39. I am helping our organization reach its full potential by being a good steward of the organization's resources.

- Evangelism
- 40. I pray for the salvation of my work colleagues regularly.
 - 41. I have shared the Gospel with a work colleague in the past year.
 - 42. I actively look for opportunities to share my faith with my co-workers.
 - 43 (r). I rarely utilize my full God-given potential at work.

Organizational Relationship Skills

- Submissive
- 44. I submit to those who are in authority over me, unless there is an ethical issue.
 - 45. Because God has placed people in authority over me, I must submit to them.
 - 46. I do not challenge people in positions of authority in a negative manner.

- Peacemaking
- 47. I believe that I am viewed as a peacemaker at work.
 - 48. I help my work colleagues to live in peace with each other.
 - 49. It bothers me when my work colleagues are upset at each other.
 - 50 (r). It rarely bothers me when my work colleagues are upset at each other.